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Animating Opacity: Race, Borders, and Biometric Surveillance

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Submitted in accordance with the requirements for the degree of

Doctor of Philosophy in Creative and Critical Practice

School of Media, Film and Music

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Declaration

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

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Abstract

This project intervenes on the increased policing of borders using digital technologies. It is an autoethnographic practice-led research project that investigates the application of biometric surveillance technologies in identity capture and verification of black migrants. Consequently, it focuses on the racial implications of these new forms of surveillance and the resistances necessary for black migrant survival. This study emphasizes the importance of resistance as black migrants' movements are increasingly dictated by biometric technologies that transform everyday spaces into the border. Crucial to this study is the connection of the histories of the colonial biometric dissection of the black body to the contemporary inscription of race on the body despite the claim that biometrics are race-neutral. Placed within the connection of modern biometric technologies with their colonial predecessors are black migrants who are disproportionately scrutinized at the border while being subjected to racial bias in moments of biometric data capture, identification, and verification. *Animating Opacity*, therefore, analyzes these processes of biometric surveillance focusing on autoethnographic accounts and public case studies of the policing of black migrants. The analysis respectively presented within the chapters are: the histories of these biometric technologies that state their links to the colonial dissection, the inscription of race in the act of biometricization, the racial syntax of biometric capture that tags black migrants as other, the affective economy of fear resulting in the boundary maintenance of the black body, and the new spatializing practices engendered by the creation of the

biometric border. Countering these experiences of surveillance at biometric borders are moments of resistance placed within media art practices. These art practices include installation art, moving images, and video games which assert the right to opacity and geographic agency of black migrants. Therefore, this study centralizes the resistances of black migrants against biometric surveillance. Resistance is framed as ‘the right to opacity,’— the counterpoint to the colonial imperative of transparency—as conceptualized by Édouard Glissant. Through the framing of resistance, *Animating Opacity* plots the escape from biometric capture, the new forms of languages that exploit the failures of biometric surveillance, and the virtual spaces outside of the surveillant gaze that animates the opacity of black migrant life.

Dedication

In memory of my dear friend, Monica Igweagu

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Introducing *Animating Opacity*

Biometrics are everywhere. They take the form of the always-listening, voice-recognizing digital assistants that help us plan our days to the adorable avatars on our mobile phones that rely on facial recognition. These surveillance technologies are embedded in modern life. With the rising movement to the “digital transformation” (Home Office, 2017, para 2) of the border, migration is increasingly managed by networks of biometric technologies and databases that demand full and uncompromising transparency from border crossers. Government agencies frame the increased implementation of digital technologies at the border as a move towards “modernization” (Home Office, 2017, para 13) and convenience for travellers while ignoring how these surveillance technologies might reinforce histories of oppression. The aim of *Animating Opacity* is to interrogate the ways these technologies reinforce racial categories and oppression. It does so by looking into the lived experiences of biometric surveillance and the imperative of transparency for migrants of colour. Within this discussion of the lived experiences are those of resistance and subversion which take the form of opacity in this project. Thus, through centering the situated knowledges and practices of resistance in the lives of black migrants, *Animating Opacity*, aims to subvert the current regime of biometric surveillance of migrants. Core questions here are:

1. What practices of colonial racism do biometric technologies repeat?
2. What new migrant subjectivities does the deployment of these technologies at the border generate?
3. How can these biometric technologies of surveillance be subverted in ways that assert the agency of migrants of colour?

In answering these questions, this thesis underscores the value of opacity for black migrants as we move through borders. To answer the above questions, *Animating Opacity* glances back into the archive of biometric surveillance, illustrating that these technologies that are purported by government agencies to be modern uphold the legacy of colonial violence. The first three chapters focus on the first question on colonial and racializing practices in biometrics. Chapters 4 and 5 focus on the second question—the new migrant subjectivities that arise from biometric surveillance. All the chapters address the topic of subversion and agency from the third question. As the thesis title indicates, these acts of subversion are merged under the theoretical framework of opacity, as conceptualized by the Martinican post-colonial writer, Édouard Glissant (1997a). Therefore, this thesis animates opacity—bringing it to life from a theoretical concept to a vital tool for migrants’ survival in the border. It animates opacity using visual autoethnographic accounts of my experience at the border subverting them through my media art practice. These autoethnographic accounts are supplemented with analyses of current events and explorations of artworks by other artists.

As a cohesive body of work *Animating Opacity* includes this written dissertation alongside an iterative media practice portfolio—dating from 2016-2018—in which I unpack my experiences at national borders. *Animating Opacity* centers these artistic practices as “acts of cultural production,” in which “we can find performances of freedom and suggestions of alternative ways of living under surveillance” (Browne, 2015, p. 8). The pieces I present in here in the written dissertation were all displayed in the exhibition, “Dreams of Disguise” at ONCA Gallery, Brighton in September 2018. The first of these pieces is *Border Ritual* (Fubara-Manuel, 2016a), a zoetrope installation first exhibited at Hastings Art Forum in a group show of black women artists titled “Wheel ‘n’ Come Again” (see Appendix A.1). In this project, I re-enact and

intervene on my August 2016 UK Border interview in which the border agent uses a repetitive line of questioning that is ultimately answered by the biometric data on my British Resident Permit. As the earliest practical work, *Border Ritual* is the point of entry into the media practices within *Animating Opacity*. *Border Ritual 2.0* (Fubara-Manuel, 2017a) is a 2D side-scroller videogame in which I experiment with video games as digital interventions. This game focuses on the fictional player character, Nkechi Eze, a Nigerian woman experiencing technical failure with the fingerprint scanner at the UK Border. I developed and exhibited *Border Ritual 2.0* as part of a 6-week game design workshop organized by Code Liberation at the Victoria and Albert Museum, London. Code Liberation also showed an early version of the game in a group show at the Victoria and Albert Museum as part of London Design Week (Digital Design Weekend) in September 2017 (see Appendix A.2).

Developing the game *Border Ritual 2.0* demonstrated the use of videogames to simulate subversive biometric interventions. During this development, I worked on the three-dimensional animated video based on my June 2017 experience at the UK Border (see Appendix B.1 for concept and ideation images). The video, *Dreams of Disguise* (Fubara-Manuel, 2018a), is a looping movement through the border that sees my avatar pulled into the technologies that make the frontier inescapable. It is the central piece of work in the eponymously titled exhibition *Dreams of Disguise (DOD)* (see Appendix A.3 for installation images and B.2 for ideation process). The game, *Dreams of Disguise: Errantry (DOD: Errantry)* (Fubara-Manuel, 2018b) is a return to the border presented in *DOD*. This game is an attempt to intervene on the events occurring in the border. In *DOD: Errantry*, the avatar from *DOD* (the video) returns to the UK border to help her friend, who has been detained. As in this game, all media practices presented in *Animating Opacity* are situated in the border, exploring ways of living under

surveillance that assert the opacity of migrants. As they are based on my real experiences, I intend that they resonate with other migrants of colour whose lives are tied to the border and awaken a demand for migrant opacity.

The first chapter introduces the primary themes of *Animating Opacity*, explaining the methods and methodology of this study. In addressing these themes, I will expand on definitions of surveillance from surveillance studies and problematize this definition by centering its theorizations by anticolonial feminist and critical race scholars (Browne, 2015; A. Smith, 2015). Thus, the introductory chapter places *Animating Opacity* within the theoretical frameworks of critical race and anticolonial feminist theories. An anticolonial feminist definition establishes biometric surveillance as a continued project of colonization. Incorporating concepts from Haraway (1997) places biometric surveillance within the context of biotechnological fetishization of the body, connecting technoscientific practices to colonial fetishism through bodily dissection. Colonization, according to Glissant (1997a), demands the utter transparency of its subjects. Consequently, Glissant asserts that opacity must be a human right. Therefore, Chapter 1 expands on opacity as resistance against colonial objectification and dissection. It lays out the feminist methodologies of situated knowledge and standpoint theory used in this project. These methodologies are then connected to the methods of visual auto-ethnography used in *Animating Opacity*. Chapter 1 will highlight the emphasis of positionality and situatedness in the methodology, moving on to its conclusion, where I outline my positionality through an analysis of my zoetrope and sound installation *Border Ritual* (Fubara-Manuel, 2016a). In placing my subjectivity through *Border Ritual*, I highlight a key theme that carries through my media practice as a symbol of opacity.

The second chapter interrogates how biometrics inscribes the body with race and how the process of reading the body, in turn, creates a technology that is biometric. Problematizing understandings of biometrics that minimize the role of race, chapter 2 will explore the archive of biometric surveillance, connecting the act of marking the black body as property through branding to the process of fingerprinting. The marking of the body that must occur in order to extract biometric information from it also depends on the inscription of race on the skin. In underscoring practices of inscription over the skin, Chapter 2 looks to the biometric regime within apartheid-era South Africa. It explores the work of the South African artists, Sue Williamson and Gavin Jantjes, to address biometric subjectivities and subversions in apartheid South Africa. This chapter connects the use of biometric surveillance to delimit the movement of the black body in apartheid-era South Africa to the current use of biometric technologies to mark, differentiate, and constrain the mobility of migrants of colour. This chapter concludes by calling for an adoption of Browne's (2015) theorization of biometric consciousness that generates possibilities for biometric dissent and solidarity.

Chapter 3 returns to the marking of the body through machinic languages as it develops on the undertheorized sociopolitical implications of biometric data capture. This chapter expands on three formulations of capture as imperial (Deleuze and Guattari, 1989), computational or linguistic (Agre, 1994; 1995), and representational (Chow, 2012). Integrating an analysis of autoethnographic accounts, the art of the British artist, Keith Piper and the work of the MIT Researcher Joy Buolamwini, Chapter 3 addresses the paradox of biometric surveillance. Within the stated contradiction, black communities are disproportionately targeted for surveillance yet are prone to trigger moments of biometric failure such as failure to register dark-skinned faces. This chapter thus addresses the ways in which political tensions about migration and race are written

into the code and deployed in processes of biometric capture. Concluding this chapter is a positioning of biometric failures as errancies through which new forms of languages that enact opacity as dark sousveillance can emerge. These languages are termed ‘computational creole’ which aide escape from disproportionate biometric capture of migrants.

Chapters 4 and 5 move even closer in their readings of biometric technologies within the border. While the earlier chapters address biometrics with a view from the top (surveillance), these chapters look from below. These chapters explore the sensory experience of the border and the spatializing practices through which migrants can enact their agency as the geographic subjects of virtual frontiers. Senses brought to the forefront in chapter 4 are sight, touch, and vision. These senses are linked to the various technologies and organizing principles of the border. Within the discussion of sight and vision is an analysis of the constriction of the mobility of black bodies through constant illumination. The control of the movement of black bodies through light is termed black luminosity by Browne (2015). Black luminosity is linked to the sense of touch in the management of epidermal and physical boundaries through light. In addressing the sense of touch, this chapter turns to a discussion of full body scans and the ordering of touch. More specifically, it categorizes who touches and whose layers are compromised. In addressing touch, Chapter 4 moves on to Ahmed’s (2000) conceptualization of the national border as the skin. Therefore, who is privileged to and excluded from touching the nation becomes vital in an understanding of fear and anxiety in the body politic. These affects, as stated in chapter 4, result in hypersurveillance and violent expulsions of migrants. This chapter, then concludes with the sense of hearing, addressing speech at the border as a recitation instead of ‘listen in’ (Lacey, 2014) which opens the opportunity to be a witness to the pain of others. Considering this centering of speech,

this chapter concludes with my statement on the importance of opacity for my own survival as a black queer migrant.

The final chapter addresses the tensions surrounding geography and the border. As biometric technologies digitize the border into virtual zones carried within the bodies of migrants (Amoore, 2006, p.348), the geography of the border becomes harder to place. The attempt to locate the border leads to tensions about geography and space within the field of critical border studies. Finding a unifying theory within which to address these debates, Chapter 5 incorporates Appadurai's (1990) notion of 'scapes.' Organized around three 'scapes'—borderscapes, gamescapes and landscape—the analysis here fleshes out thoughts surrounding frontiers as 'borderscape.' This shares similarities with the theory from the artist collective La Pocha Nostra (2012), which centers counterhegemonic spaces and practices within frontiers created by migrants. As a theoretical framework, borderscapes highlights the strength of migrants' spatializing practices in shaping and re-shaping hegemonic borders. Acts of shaping the border, as explained in this chapter, can occur in digital games. It is due to the understanding that these virtual spaces offer an opportunity to mediate borderscapes and plot escape from violent surveillance technologies. Chapter 5 thus addresses the gamescape presented in my work *Dreams of Disguise: Errantry* as a postcolonial playground, wherein those subjects of colonization and biometric objectification can challenge and subvert hegemonic systems. More specifically, Chapter 5 presents gamescapes—or the environment of digital games—as spaces through which migrants can shape the border. As a walking simulation game, *DOD: Errantry* promotes black geographic agency, which will be the conclusion of this chapter, borrowing theories from the Canadian scholar McKittrick (2006). *Animating Opacity* then closes with a reflection on the right to opacity and the dream of disguise suggesting the other rights that are nested within

the right to opacity. Therefore, the following chapters animate the theory of opacity, envisioning ways through which migrants of colour can claim their agency from colonial objectification in the increasingly biometric border.

Biometric Surveillance: Contextualization, Theorization, and Subversion

Surveillance is “the focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction,” as defined by Lyon (2007, p.14). Power dynamics within this system are skewed to the privilege of the ‘watcher’ or proprietor of this systematic collection of information. For this watcher or proprietor surveillance is a means to an end—from managing workers’ time to monitoring the spending habits of consumers. As Lyon (2007) notes, surveillance involves the negotiation of visibility. However, negotiating visibility is complicated in postmodern forms of surveillance, which rely on “technology-based, body-objectifying, everyday” (p.55) systems. These new forms of surveillance, from social media monitoring to website tracking, to DNA collection and biometrics involve active participation in making oneself visible to the system. They are unlike the earlier or modern forms of surveillance that separated the watched from the watcher. An example is the division between a factory manager and assembly line worker. Current modes of surveillance, according to Lyon, involve a mixture of both modern and postmodern surveillance. It is the focus on (post)modernity in surveillance studies that becomes a pivotal point of criticism for A. Smith (2015, p.22), as it “obfuscates the settler colonialist underpinning of technologies of surveillance.” A. Smith calls to question the occlusion of settler colonial surveillance in surveillance studies. For the indigenous scholar, modern and postmodern surveillance is built on settler colonial systems. For a field that is about “seeing things and, more particularly, about seeing people” (Lyon, 2007, p.1), surveillance studies is continuously ““not-seeing” the settler state” (A. Smith, p.22). Consequently, surveillance studies fails to address surveillance itself as a continued project of the settler colonial state. This blind spot leaves a gap in the

theorization of colonization in the field. To address the stated gap, A. Smith posits an “anticolonial feminist analysis” (p.21) of surveillance that assesses and disrupts surveillance as a colonial project.

Coterminous to this gap on the connections between colonization and surveillance, is also a gap in race. Within surveillance studies, Foucault’s (1995) theorization of the panopticon is the metaphor *par excellence* for surveillance in modern societies. Drawing upon Jeremy Bentham’s architectural design of a prison surveillance system, Foucault (1995) theorizes the panopticon as a disciplinary technology. This surveillance system places the warden in a central tower, with an overarching view of all the cells in the prison. The theorist states that the invisibility of the warden in the tower incites self-regulating behaviours from the objects of the panoptic gaze, who remain in “a state of conscious and permanent visibility” (Foucault, 1995, p.201). Scholars have expanded on Foucault’s theory of the panopticon, integrating it into pertinent contexts such the digital era as in Poster’s (1990) conceptualization of the panopticon as the ‘super-panopticon’—a network database instead of a prison. In Bigo’s (2006) banopticon, the panopticon becomes a disciplinary technology within border policing. The banopticon excludes specific objects of its gaze from the right to mobility. Even Lyon (2006), speaking to the affinity for Foucault’s theory in scholarly writing, states elsewhere that scholars must not only theorize from this panopticon and but also theorize beyond it. However, it is Browne’s (2015) contextualization of the panopticon that comes to the challenge of interrupting how to *see* the panopticon. For this, Browne returns to the moment when Bentham conceived the panopticon while aboard a ship. In Bentham’s letter to his friend, he details the commuters on the ship as: “24 passengers on the deck, all Turks; besides 18 young Negresses (slaves) in the hatches” (Bentham, 1785, cited in Browne, 2015, p.32). In accentuating this moment, Browne (2015)

initiates an inquiry on how the discipline of surveillance studies might “grapple with the panopticon, with the knowledge that somewhere within the history of its formation are eighteen “young Negresses” held “under the hatches”” (p.32). By spotlighting this overlooked moment, Browne opens new avenues of inquiry that confront race in surveillance. The writer invites theorizations from the hold of the ship. Browne calls for theorizations that account for the black and brown bodies held in the hatches that return the surveillant gaze. In addition to A. Smith’s (2015) statement that surveillance is built on the colonial state, Browne posits that modern surveillance is upheld when their racializing and colonizing formations are ignored. It is with critical race and anticolonial feminist *insight* into surveillance theory that *Animating Opacity* builds on its approach to biometric surveillance.

This chapter will expand on the common threads and theoretical frameworks guiding *Animating Opacity*. The main thread addressed here is colonial surveillance as an act of bodily intervention or dissection. To follow are contextualizations of surveillance as a central aspect of colonization, focusing on colonization as an act of objectification, as theorized by the postcolonial scholar Césaire (2000). Colonial interventions on the body will be connected to that which occurs in biotechnology and is carried into biometrics. Therefore, this chapter expands on Amoore and Hall’s (2009, p.448) theorization of the “dissection and visuali[zation]” of bodies using digital biometric technologies. It also incorporates Haraway’s (1997) conceptualization of corporeal fetishism in biotechnology—acts that objectify and the body for scientific purposes. Fetishization in biotechnology will be connected to that in colonization, underscoring key moments in the biometric archive that contribute to modern biometric surveillance. Moving on to a new section, it will address opacity as an act of resistance. The chapter will expound on Glissant’s (1997a) conceptualization of opacity,

connecting it to Browne's (2015) notion of dark sousveillance. It will differentiate the understanding of opacity in *Animating Opacity* from its forms in other contexts, emphasizing opacity as a form of decolonial and anti-racist resistance. It will then move on to an explanation of the methodology used in this study—situated knowledges and standpoint theory. It will link visual autoethnography to these feminist methodologies, highlighting the role this method plays in subverting biometric surveillance.

Considering the emphasis on placing oneself within the methodologies of situated knowledges and standpoint theory, this chapter will move on to state my positionality. It will do so via an exploration of my autoethnographic account of my August 2016 UK Border crossing. The crossing is presented via my first media practice piece in this study, *Border Ritual* (Fubara-Manuel, 2016a). In the zoetrope and sound installation, I re-enact the border interview from the stated crossing. The interview sees me verbally responding to a repetitious line of inquiry from the border agent that is ultimately resolved by the biometric (fingerprint) scanner. *Border Ritual* introduces the trickster—a Kalabari (Niger Deltan) masquerade—as a symbol of opacity. In *Animating Opacity* the trickster is a symbol of the disruption of biometric objectification. It intervenes on the biometric interview and the processes of crossing the border. As the symbol is repeated in my other pieces—*Border Ritual 2.0*, *Dreams of Disguise* and *Dreams of Disguise: Errantry*—the trickster becomes an anchor point in this study. It presents one of the ways to enact migrants' right to opacity.

Undoing Bodily Opacity: On Dissection, Colonization, and Surveillance

Within Lyon's (2007) above definition of surveillance are implications of colonization. "Influence, management, protection or direction" (Lyon, 2007, p.14) are synonymous to domination and control. It is through these terms that the postcolonial scholar, Césaire (2000) formulates colonization. Césaire defines colonization as the

“relations of domination and submission which turn the colonizing man into a classroom monitor, an army sergeant, a prison guard, a slave driver, and the indigenous man into an instrument of production” (Césaire, 2000, p.42). He summarizes this definition into the following equation: “colonization=“thing-ification”” (Césaire, 2000, p.42).

Therefore, for Césaire, colonization is a simultaneous process of control, surveillance, and objectification. In this formulation, colonization is a relation of power dependent on surveillance for its effective accomplishment. Linking back Lyon’s definition of surveillance, colonial domination over the body of the colonized means that there is no limit to the nature of the personal details collected for the purpose of surveillance.

Colonial surveillance collects personal information through acts of bodily interventions such as dissection and branding. Césaire recalls moments of the colonial conquest from the accounts of Count d’Hérison in which the French official quantifies the dismembered bodies of colonial plunder as a “barrelful of ears collected, pair by pair” (cited in Césaire, 2000, p.40). While the collection of ears might have simply been for the sake of asserting power or for the “sadistic pleasures” of genocide (Césaire, 2000, p.41), it is symbolic of the power of the colonial gaze to dissect and quantify the body.

This section addresses the power of colonization to re-configure the body as a form of biometric surveillance. It uses Magnet’s (2011, p.21) definition of biometrics as “the science of using biological information for the purposes of identification and verification.”¹ Taking a face value definition, *Animating Opacity* places the practices of dissection as a form of information collection for the purpose of identification and

¹ Chapter 2 will further expand on the definition of biometrics. This chapter will use the current rudimentary explanation in order to broadly explore colonial surveillance and bodily interventions.

control. It positions these practices as the earliest forms of biometric surveillance. This section will argue that current biometrics enact these colonial dissections.

An instance of dissection or thing-ification for surveillance is that of the 1904 rubber harvesters in the Belgian colony of The Congo Free State. An atrocity beyond any comprehension, the sadistic mutilation was enforced alongside murders and looting to meet rubber quotas (Sliwinski, 2010). As the state police, called Force Publique, were required to account for each bullet they used under the commands of their European administrators, they would indiscriminately cut off the hands of the colonial subjects to prove that they had successfully punished or killed a worker that had not paid taxes or met their quota (Sliwinski, 2010). Force Publique enacted this dissection and collection of the limbs to influence and manage the labour of the Congolese workers. It is colonial surveillance in its most brutal form. As Sliwinski (2010) notes, the process of harvesting rubber in Congo Free State was dangerously labour-intensive. Neither age nor gender nor physique mattered as black bodies were reduced to less than their worth in rubber. These acts were conducted under the reign of the “fanatical” (Sliwinski, 2010, p.6) King Leopold II, who claimed their land and bodies as his personal property. The photographic archive (Sliwinski, 2010) of these heinous acts of dismemberment and mutilation by Belgian colonial administrators only highlights the reductive power of colonial surveillance. The logic of mutilating humans with the aim of increasing commodity production simply does not add up. This is unless these people are stripped of their humanity and envisioned as disposable machines—objectified as things or “instruments of production” (Césaire, 2000, p.42). To paraphrase the Black radical thinker, Wynter (1979, p.152) the symbolic lack of intellectual ability of enslaved Africans in plantations is “designated to the lack of the human.” Chude-Sokei (2016) writes on this exclusion of black subjects from the category of human through the

categorization of the black slave as a robot and a “mechanical curiosity” (p.23). As Chude-Sokei (2016, p.53) writes, “the robot represents both racial and sexual difference. It begins by looking physically different.” The act of mutilation is thereby a marking—an inscription—of ‘not human’ with the purpose of differentiation. As their bodies are dissected limb-by-limb in a manner resembling medical amputation or a butcher rendering the carcass of an animal, they are marked over and again as other. Through this act, they are commodified as obsolete instruments. These acts of corporeal reduction and bodily dissection found in archives of colonial surveillance inextricably connects contemporary surveillance to the commodification and thing-ification of colonized peoples.

Physical dissection becomes a symbolic act of dissection through visualization as seen in the case of the Bengalese road contractor, Rajyadhar Kōnāi. Cole (2002) and Lyon (2007) trace the science of fingerprinting (and therefore, contemporary biometrics) as a means of identification to the road contractor. Kōnāi’s handprint was taken in 1858 by the British colonial administrator William Herschel as an alternative to a signature on a contract. Indeed, it is under a similar implication of violence as in the case of the Congolese workers that Kōnāi gives his palmprint. Herschel (1916, p.8) writes in his documentation of his experiments with fingerprints, “I was wishing to frighten Kōnāi out of all thought of repudiating his signature thereafter.” Therefore, Kōnāi’s hand might not have been physically dismembered, but its figurative maiming through the duplication of the print of his palm was enough to threaten violence. This is the affective potency of surveillance, as it can govern through fear. The objectifying colonial gaze on Kōnāi’s body is loaded with meaning and implications for contemporary surveillance practices, as Herschel would send this handprint to Francis Galton (Pearson, 1914). The eugenicist (Galton) would later classify the patterns on the

epidermis finger to arch, loops and whorls, stating the statistic improbability of two people sharing the same fingerprints (Pearson, 1914). From Herschel's (1916) contract to Pearson's (1914) biography of Galton, Kōnāi's handprint has been re-visualized several times over the past century. It thus remains symbolically disjointed from his body. The thing-ification or dissection of Kōnāi's hand occurs through using a print of his hand to map and visualize his body. This form of bodily mapping is an example of what Haraway (1997, p.142) calls "corporeal fetishism."

If colonization effectuates the instrumentalization of the body, it is welded to the technoscientific practices of corporeal fetishism. In her interrogations of the mapping of the gene, Haraway (1997, p.142) coins the term 'corporeal fetishism' as the technoscientific conflation of "heterogenous relationality for a fixed, seemingly objective thing." Scientists objectify the gene as a "thing-in-itself" that "can be exhaustively measured, mapped, owned, [and] appropriated" (Haraway, 1997, p.8). Implied in Haraway's (1997) concept of corporeal fetishism, are Count d'Hérissou's "barrelful of ears" as cited in Césaire (2000, p.40). This quantification of the colonized body takes form in technoscience as a mapping and measurement of the body. However, in technoscience, quantification is supplemented by the concretization of its abstract measurements. For Haraway corporeal fetishism relies on denials, lapses of memory, and mistakes that transforms abstract constructs to concrete things-in-themselves. An instance of the extraordinary fetishization of the corporeal is in what O'Riordan (2010) underscores as the economic and bodily concretization of the genome. Genes as the object of genomic sequencing, do not only take on concrete commodity value wherein they provide monetary capital, they also have affective value with emotions attached to these abstract objects. This means that they also take on political significance, as in the form of activism and political lobbying for and against such things as Genetically

Modified Organisms, eugenics, and so on (O’Riordan, 2010). Following O’Riordan’s (2010) understanding of the concretization of the gene, it can be argued that the gene has been materialized through several technoscientific actions to have a life form on its own. It is no longer a map of life but rather, the basis upon which “life-itself” (Haraway, 1997, p.133) is understood. As Haraway, highlights of corporeal fetishism, seeing the gene as a tangible thing relies on the denial of the production of this abstract form.

As illustrated in Kōnāi’s case, corporeal fetishism relies on the practices of technoscientific visualization (Haraway, 1997). This is seen in Waldby’s (2000) account of the Visible Human Project (VHP). Here it is not the gene that is the object of fetish—mapped and appropriated—but the body itself that is transformed into an interactive map (see QuentinG, 2015). The Visible Human Project (VHP), conducted by the US National Library of Medicine (NLM) during 1995-1997, archived the human body by visualizing thousands of axial and cross-sectional layers of the bodies of a male and a female cadaver using Magnetic Resonance Imaging (MRI) and Computed Tomography (CT) scans. These scans digitize the body in a way that makes the body an explorable space traversed via a disembodied gaze that can simply “fly through” it (Waldby, 2000, p.73). Identical to the way the black body is turned into a curiosity through the act of colonial dissection, the act of technoscientific dissection turns the body into a spectacle. These forms of visualization, from the anatomic illustrations of the body to the modern digital software used for surgical training, attempt to do away with the “problem of bodily opacity” (Waldby, 2000, p.24). They attempt to establish vision from everywhere and nowhere that sees everything (Haraway, 1988, p.584). These disembodied views in and through the body are what Haraway (1988; 1997) refers to as the god trick of technoscience. It is the god trick that grants technoscience its appearance of objectivity as it gazes from an indiscriminate distance to planets, bodies, cells, molecules and

atoms. These acts of technoscientific and colonial objectification intervene upon the body and converge in biometric surveillance. As Amoore and Hall (2009) underscore, the biometric “taking apart and making visible” of the body builds on these anatomic and technoscientific processes of “dissection and visuali[zation]” (p.448). Biometrics aim “to make the invisible visualisable” (Amoore and Hall, 2009, p.459). They aim to create a reference of the body that becomes a concrete substitute for the body, as Magnet (2011) notes, connecting biometrics to corporeal fetishism. Mapping, measuring, and appropriating biological information, biometrics create the body as an object always under surveillant control. In this regard, as in colonial and corporeal fetishism, biometrics is occupied with the process of undoing bodily opacity through dissection and visualization.

It is important to stress the connection between physical dissection and technologized dissection through visualization in technoscience and colonization, as these are the underlying techniques in contemporary biometrics. The tensions of these intersections of colonial and technoscientific objectification of the body are addressed in *The Untold Intimacy of Digits* (2011) by the Indian artist-curator ensemble Raqs Media Collective, (Monica Narula, 2014). Raqs’ artwork intervenes on the double act of technoscientific and colonial thing-ification. *The Untold Intimacy of Digits* re-visualizes Kōnāi’s handprint as a large-scale projection that loops the hand of the road worker counting. Through animating Kōnāi’s dissected hand, the artists problematize the colonial histories of biometric technology. They bring to life the ghosts in this archive. Furthermore, Raqs’ one-minute loop also intervenes on the contemporary biometricization of residents of India using the Aadhar biometric resident card (Unique Identification Authority of India, 2016). The Aadhar system requires the residents of India to register their biometric information in order to receive an identification number

that serves as a national identification reference. Raqs Media Collective conjure the phantom of the biometric archive to link the colonial extraction of Kōnāi's palmprint as biometric data to state-sanctioned extraction of biometric data from residents of India. *The Untold Intimacy of Digits* refuses to 'not-see' (A. Smith, 2015) the colonial dissections in biometric surveillance. To use Haraway's (1997, p.142) terms, the reanimation of Kōnāi's hand in Raqs' piece represents the "cascades of actions that constitute an organism." It is with a notion of re-animation and the intervention of the colonial archive of biometric surveillance that this study interrogates the animation of opacity.

Resistance: Dark Sousveillance, Opacity, and Blackness

Re-reading Kōnāi's contract with Herschel opens a space for subversion and resistance to the dissection of colonial surveillance. This is especially significant due to the absence of William Herschel's signature or handprint in the original document he used to frighten Kōnāi (see Pearson, 1914, p.146). While Herschel (1916) writes that he compared his own prints to Kōnāi's, he does not use his prints in the contract. Therefore, Herschel is invisible or absent from the document. The administrator's absence resonates with Foucault's (1995) conceptualization of the panopticon as a relationship of power through vision, as Herschel (the warden) remains out of sight. Even though this document is a contract, it is in no way a mutual agreement. It is instead an edict that ensures Kōnāi's subservience to Herschel. As Césaire (2000, p.42) writes, "[b]etween colonizer and colonized there is room only for forced labor, intimidation, pressure, the police, [and] taxation [...]." Césaire's statement is particularly poignant as the search for absences in this contract, emphasizes another glaring omission. English (the colonial language) is nowhere on the contract. Written entirely in Bengali script by Kōnāi (Herschel, 1916), the document positions Kōnāi as

both the subject authoring the contract and the object of a colonial gaze. It highlights that there are opportunities for agency even in moments of oppression. Kōnāi's authorship, counters Herschel's colonial "dissection and visuali[zation]" (Amoore and Hall, 2009, p.448), allowing for an oppositional reading of this document. Imagining the possibilities of Kōnāi's authorship, one may re-read this contract with the aim of undermining colonial dissection. As Browne (2015) notes, there is power in looking upwards from underneath the hatches of the slave ship and asserting one's agency by returning the surveillant gaze. Browne terms the act of returning the gaze from the hatches as "dark sousveillance" (Browne, 2015, p.12). This term expands on Mann, Nolan, and Wellman's (2003, p.332) call 'sousveillance'—to watch from below. For Browne (2015, p.21) dark sousveillance is:

a site of critique, as it speaks to black epistemologies of contending with antiblack surveillance, where tools of social control [...] are] appropriated, co-opted, repurposed, and challenged in order to facilitate survival and escape. [...] Dark sousveillance charts possibilities and coordinates modes of responding to, challenging, and confronting a surveillance that [is] almost all-encompassing.

Dark sousveillance sits within the anticolonial theory of opacity. Postcolonial writer, Glissant (1997a) declares opacity against the reductive colonial gaze as a right. This takes into consideration that, for the colonized other to be understood within western thought, it must be reduced or made transparent (Glissant, 1997a, p.190). As Glissant (1997b) notes in *Traité Du Tout-Monde*, colonial reduction occurs in several forms. On the level of language, the colonizer reduces the communication of its subjects from its multiplicities to one dominant language—most likely the language of the colonizer. As explained earlier through the cases of the Congolese rubber workers and Rajyadhar Kōnāi, colonial reduction also occurs on a biological level.

In situating dark sousveillance as opacity, I take opacity as a play on visibility following Glissant's (1997a, p.191) statement that "[t]he opaque is not the obscure,

though it is possible for it to be so and be accepted as such. It is that which cannot be reduced”. Refusing reduction is not merely hiding from the colonial gaze but also confronting it with a creole dialect of “[c]amouflage [...] constituted around [the] strategy of trickery” (Glissant, 1996, p.21). Incorporating language in opacity builds on the opportunities presented in Kōnāi’s authorship of the contract. Furthermore, when understood through the creole languages, opacity becomes a relational practice. This is because creole languages (and their anglophone counterparts—Caribbean patios and West African Pidgin English) were born out of the enslaved Africans desire to communicate with each other and talk back to their masters. Dark sousveillance and opacity, therefore, enact a ‘relational’ look amongst those underneath the hatch of the slave ship of the surveillant master. Glissant (1997a) conceptualizes this relational look as that of opaque egalitarianism and boundless interconnectedness. Therefore, coded into the syntax of creole languages are subversions of colonial linguistic forms that defy the reductive power of the colonizer. It is from the hatch of the slave ship, the self-authorship in indigenous, creole, patois, or Bengali script that I situate my study and art practice.

It is, therefore, essential that I delineate my decolonial uses of opacity from its connotations in surveillance studies and digital humanities. Opacity, for the media theorist Galloway (2011), is linked to the politics of absence, invisibility, and anonymity that has manifested in the protest culture of the current millennium. Galloway sees opacity in ‘black bloc’—the protest tactic of anonymizing dissenters with masks and hoodies to protect their identity and represent a unified collective. For the theorist, these new forms of protest tactics are linked to the digital. Galloway characterizes this link by comparing the black bloc to the ‘black box’—a computational device with obfuscated inner workings. Exemplified by groups such as Anonymous and

Tiqqun, the black bloc politicizes obfuscation as resistance. Opacity is also computational for Fuller and Goffey (2012). However, instead of being a process of protest culture, opacity is linked to the “abstraction layers” (Fuller and Goffey, 2012, p.79) in computational procedures that obscure the backend activities in a computer. These opaque abstraction layers glitch from moment to moment. In these instances, they leak information, thus rendering the computational device more transparent. Blending these ideas of politicized anonymity and leaking information from abstraction layers, the design studio, Metahaven (2015) perform acts of ‘black transparency.’ This play on darkness and opacity describes Metahaven’s leaking of state secrets as an act of information democracy.

Informational democracy and privacy are at the intersection of these political and computational understandings of opacity. This highlights another iteration of opacity in the form of online privacy. The year 2018 saw online privacy advocacy rise to the forefront of any analysis of digital life due to high-profile data breaches. Most notable in the 2018 data breaches, is Cambridge Analytica’s harvesting of 87 million user’s data for targeted political advertising (Badshah, 2018). Another moment of privacy advocacy came in the implementation of the General Data Protection Regulation (GDPR) in the European Union (Hern, 2018). The GDPR endeavoured to protect users’ right to know, access, and control their online data. Advocacy for consumer data protection highlights the paradox of privacy and surveillance in the digital era—technologies such as biometrics are championed as privacy-enhancing tools (van der Ploeg, 2003), even as they invade the privacy of their subjects. It is for this reason that *Animating Opacity* is more invested in opacity than privacy.

While mass surveillance through digital technologies contributes to the necessity for “right to opacity for everyone” (Glissant, 1997a, p.189), my focus on opacity instead

of privacy positions this study within a decolonial, anti-racist framework. This understands that while privacy invades lives and bodies, the colonial enforcement of transparency dissects these bodies and dominates their lives. In addition, as I argue in the second chapter, digital technologies that render the body transparent rely on race as a means of objectifying bodies. Therefore, the concepts of opacity from Galloway (2011), Fuller and Goffey (2012), and Metahaven (2015) are substantial formations. However, their applications only address blackness as the absence of light, with no overt considerations on race. Consequently, these formulations diverge from my framework of darkness/blackness, which is inextricably linked to race. Nonetheless, the ‘blackness’ I refer to in this study, though tied to race, is not merely simplified to the essentialist quality of the “racial epidermal schema” as Fanon (2008, p.84) terms it. *Animating Opacity* refuses to reduce blackness to biological traits. Thus, it invokes blackness in its relational form. It places emphasis on blackness as noted by Hall and Sealy (2001, p.35) as “those communities, of whatever ethnic or ‘racial’ origin, who [a]re regarded as ‘other’—different—and thus racially excluded” as ‘black.’ Chapter 2 will delve further into the construction of race and blackness. With that noted, *Animating Opacity* mobilizes blackness against colonial power as an assertion of opacity and dark sousveillances. Blackness becomes an affirmation against colonial surveillance. It resonates with the lyrics of the American rapper, Junglepussy: “Melanin² so high—opacity” (Junglepussy, 2015). On this ground—as a black queer body under the dissecting colonial gaze, I situate my experience with biometric surveillance technologies at the border and the possibilities of resistance.

² Melanin in *Animating Opacity* is not taken simply in its biological form as the basis of skin coloration. It is instead taken in its symbolic form as an affirmation of blackness.

Opacity Animated: Methods and Methodologies

Animating Opacity is sited in the French, Nigerian, United Kingdom, and Canadian border. This is due to my own position as a Nigerian citizen who moves through these countries across the duration of this study. In placing my research and practice in these borders, I intend to establish “views from somewhere” (Haraway, 1988, p.590). These views are a counterpoint to the god tricks of technoscience that sees “everything from nowhere” (Haraway, 1988, p.581). They are based on what Haraway (1988, p.581) calls the feminist objectivity of situated knowledge. Unlike the technoscientific claims of objectivity, situated knowledges do not make sweeping statements of absolute truth. Haraway (1988) emphasizes that these forms of knowledge are grounded and embodied, requiring a responsibility to the subject at hand. “Situated knowledges are about communities, not isolated individuals,” Haraway (1988, p. 590) states. The localization of knowledge within a community is also exemplified by feminist standpoint theory as conceptualized by the black feminist scholar, Collins (2014).

Standpoint theory, as Collins (2014) states, is most powerful when used by disenfranchised communities such as black women to speak truth to power. One’s standpoint is one’s location to power, in connection with others who share a similar experience (Collins, 2014). These shared experiences in standpoint theory, as Collins (2014) underscores, develop the grounds for political action and solidarity. This is because in sharing experiences, a community creates a collective knowledge around which it can build its resistances. Also, in stating where one stands and the experience from that position, an individual is engaging in the act of self-definition— “naming one’s own reality” (Collins, 2014, p.300). This is an act that asserts agency, refusing to be defined by hegemonic power. More pertinent to this study is the exemplification of

standpoint theory in Browne's (2015) call to action to look back at the colonizing surveillant gaze from the hatches of the slave ship. It is with these black and feminist calls to action that I speak from the standpoint of a queer black African woman located in the enclosure of national borders. I use a visual ethnography of national frontiers as my means of adding my experience to the collective situated knowledges of black and queer migrants. I intend that these accounts of the border and the biometric surveillance will incite a political action that demands opacity. Furthermore, in stating my experiences, I engage in the act of self-definition that asserts my opacity.

Animating Opacity appropriates visibility as a method of resistance that confronts the uses of vision in biometric surveillance and colonization. As stated earlier, vision in biometrics is dissecting—a colonial act of thing-ification and a technoscientific act of corporeal fetishism. In engaging in visualizing practices from this location of the object of biometric surveillance, I intend to re-define the reality of life as a black queer migrant located in the border. I use autoethnography as “both process and product” (Ellis, Adams, and Bochner, 2011, p.273) of this re-definition. Ellis, Adams, and Bochner (2011, p.273) define autoethnography as “an approach to research and writing that seeks to describe and systematically analyze (graphy) personal experience (auto) in order to understand cultural experience (ethno).” Autoethnography, therefore, speaks to the methodologies of situated knowledges and standpoint theory. To conduct an autoethnographic study, the researcher must be an active participant within the study, accountable to the subject at hand. This method eschews the view from nowhere (Haraway, 1988). Therefore, in its visual form, autoethnography centers situated vision. As Pink (2017, p.17) notes, acts of visualizing social, cultural and political subjectivities have “transformative potential,” as imagery meets with the power of sharing one's

experience. In *Animating Opacity*, this transformative potential of visualization is amplified by the employment of the mediums of videogames and animation.

Visualizing practices in videogames and animation confront the tensions of representing the invisible in biometrics. As Pink (2017) notes on the limitation of visual ethnographic practice, “the most one can expect is to represent are those aspects of experience that are visible, or that the person being represented/representing themselves seeks to visualize or make visible” (p. 32). Surveillance, as explained earlier, is most effective in the regulation of its subjects when the watcher in a given system is invisible. In this sense, there are aspects of surveillance systems that cannot be visualized. Therefore, practices of visualization that focus on the surveillant gaze must use methods that address the limitation of vision and representation. This is the evocative power of 2D and 3D animation (used in videogames). As noted by Honess Roe (2013, p.25), animation allows for visual representations unconstrained by reality or the problems of invisibility. Animation is expressive and does not require a camera that must document surveillance in order to represent it (Honess Roe, 2013). With its applications in videogames, animation simulates environments such as the border, where individuals are not permitted to take photographs or record videos. It is with these considerations on methods that *Animating Opacity* uses videogames and animation as countering visualizing practices to explore the border, its technologies and the possibilities of a world that asserts migrants’ opacity.

Tricksters at the Border: On Rituals and Disguises

During the summer of 2016, I travelled to Amsterdam for a conference. While on this trip, I experimented with ideas for my art piece, *Border Ritual* (Fubara-Manuel, 2016a). I documented my ferry trip from the port of Dover, UK to Calais, France. I took

images (see Figure 1) of the Dover-Calais channel through the window of the P&O ferry, accompanied by a three-minute voice memo of the sounds (Fubara-Manuel, 2016b). The slow hum of the ship contrasted the images of the Dover-Calais border from the media coverage. It problematized this spectacularization by causing me to question what could be lurking underneath the quiet hum of the ship engine as I remembered the boat of 950 migrants that capsized off the coast of Libya (Walt, 2015) and the toddler body of Aylan Kurdi up against the shore of Bodrum (H. Smith, 2015). As Ibrahim and Howarth (2016) note, these two events led to a rise in the spectacularized visualization of the Dover-Calais border. They also note that the gaze into the refugee camps in Calais dissects the bodies of refugees, as they move through their daily activities. This occurs all under the guise of documenting the ‘migrant crisis,’ as this moment of mass migration is now termed in the media (Walt, 2015). Contrary to the media images, the Dover-Calais channel is not spectacular; it is a natural landscape, which has been concretized through sociopolitical interventions to become a border. The sound of the ferry crossing the English Channel—the body of water between Dover and Calais—re-framed The Channel as a passage. In this sense, I was engaging with Glissant’s statement of providing borders “with another meaning, that of a passage, a communication — a Relation, in other words” (cited in Diawara, 2011, p.16).



Figure 1. Landscape picture of the Port of Dover during sunrise.

I used the Schengen visa I had received from my trip to Amsterdam to take a trip to France with my partner. At the UK Border in Gatwick, on the journey back from Paris, my partner and I separated at the passport checks. As a French national, she breezed her way through the line for EU and UK passports, while I attempted to fill up a landing card. I joined the short queue of people with non-EU or UK passports waiting for their turn with the border agent, as the sign on the kiosks advised. At the beginning of my interview, I realized my partner was already done with hers and was waiting behind the passport control kiosks for me. I handed the border agent, a middle-aged woman of South Asian descent, my Nigerian passport and my British Resident Permit (BRP). With no words except for our courteous greetings said, she flicked through my passport, a 32-paged booklet filled with stamps and visas. She broke her silence, beginning to question my trajectory to and from the UK:

Border Agent: Where do you Study?

Irene: Uhn...University of Sussex.

B: Sussex?

I: Yeah... yeah Sussex.

B: What level are you doing?

I: PhD...

A: And what subject?

I: Media Practice

B: Media Practice?

I: Yeah.

{Silence}

B: Where did you do your Masters?

I: Same school. University of Sussex.

B: Sussex?

I: Yeah.

B: So how long have you been studying in the UK?

I: I think...I am in my first year of my PhD, so two years now I have been in the UK.

B: And before that?

I: Before I was in Canada.

B: Ok so, did you do your Masters' here before you started the PhD?

I: Yeah.

B: Can I have your right thumbprint, please?

{I place my right thumb on the fingerprint scanner}

B: Thank you... And your index.

{I place my right thumb on the fingerprint scanner}

B: Thank you...You're going around the world collecting degrees!

I: {Laughs nervously}.

{The border agent stamps my passport and returns it to me}

B: There you go. Thanks very much.

I: Thank you. (Fubara-Manuel, 2016a)

In *Border Ritual*, I loop a re-enactment of this conversation over an ambient sound of the Gatwick border. The sound stutters and repeats itself as a broken vinyl record. From the agent's repetitive line of questioning to the stamping noises (Fubara-Manuel, 2016a), the sonic experience of the frontier in *Border Ritual* has a rhythmic pattern. With my choruses of "yeah" to each time she questions my responses, I continuously affirm that I am who I say I am. We repeat this choreography over and over. She watches my dance closely, waiting for a slip. We reach a biometric crescendo at which the fingerprint scan validates my identity. Indeed, I am who I say I am because my fingerprint matches the data on the BRP. In many ways, my identity validation through

a biometric scan becomes a “performative act” (Butler, 1993) wherein I only become ‘Irene Fubara-Manuel’ or a ‘legal migrant’ granted access to the UK after my material fingerprint matches with its digital double. This is where technoscientific fetishism truly becomes a god trick (Haraway, 1997)—when it becomes a “performative act” that utters its declarations into existence (Butler, 1993, p.107). Let there be Irene Fubara-Manuel—an international student with the right to enter the UK. The god trick of biometric utterance at the border relates to the other rituals that occur within it. These rituals of identification and their subversions are addressed in *Border Ritual*.

Salter (2007, p.49) calls this culture of interrogation and self-disclosure at the border a “confessionary complex.” Expanding on Foucault’s (1978, p.59) statement that “we have become a confessing society,” Salter relates the border interview, to the Roman Catholic rite of confession, thereby repositioning the border interview as a confessional. As De Villiers (2012) notes, this confessional practice has implications for sexuality and the right to opacity in the imperative to “out” one’s self as gay. Corroborated by other studies on the disclosure of sexuality at the border (Atluri, 2012; Boyce, 2014; and Dutta, 2013), this confessionary complex is particularly dangerous for gender-nonconforming people in non-Western countries and queer refugees/asylum seekers. Nonetheless, when border kiosks become a confession booth, they are also a “rite of passage” (Salter, 2007, p.60) simultaneously embedded in venerated rituals and theatrical acts. Several writers have addressed the construction of the border as a space of reverence, where self-discipline is the stipulation of engagement (Amoore and Hall, 2010; Browne, 2010; Leese and Koenigseder, 2015). For Amoore and Hall (2013) the clown or the trickster emerges as a response to these rituals. These figures are the liminal embodiment of “subversion and mockery” of sovereignty and power in the border (Amoore and Hall, 2013, p.99). As the scholars note “the clown [or trickster]

troubles the division between interior and exterior on which sovereign political life rests, a division that is also frequently replicated in understandings of resistance” (Amoore and Hall, 2013, p.95).



Figure 2. Still images of live-action dance footage in *Border Ritual*.



Figure 3. Sequential illustrations of a Kalabari masquerade dancing at the UK Border.



Figure 4. An image showing the zoetrope setup at Hastings Art Forum.

As shown in Figures 2 and 3, *Border Ritual* (Fubara-Manuel, 2016a) is a choreography of myself, and an illustrated Kalabari (Southern Nigerian) masquerade in the Gatwick border. These images depicting this dance are cut into a strip and pasted into a sixteen-frame zoetrope drum (see Figure 4) made with card paper. In this installation, the motions of the top-heavy zoetrope sat on a small tin, gives the trudging effect of the drum struggling to balance its weight. Spinning this drum at 45rpm is a thin 10-inch record player that rotates slowly. The record playing is a re-enactment of my Gatwick confessional recital, set to the beat of the Nigerian Highlife song *Sawale* by Cardinal Rex Lawson (1969). Sang in Nigerian Pidgin English, Kalabari Ijaw, and a jumble of other Nigerian dialects, the popular tune reprimands a wandering woman (*waka waka baby*) by calling her a sex worker (*ashawo*) in its chorus. In *Border Ritual*'s recording, whenever I respond yes to a question, the refrain "oh yeah" from *Sawale* repeats in the background synchronized with my affirmation. This response blurs my "performance" of the legal migrant as, within the subtext of the call and response of the

chorus in *Sawale*, I am affirming a deviant and criminalized sexuality. In this sense, I link my border confession to criminalized same-sex and queer relationships in Nigeria. I intend to highlight the practices of interrogation that might force people in my position as queer Nigerian migrants to out themselves. Thus, *Border Ritual* highlights that sexuality and surveillance at the border are interconnected.

Further grounding this practice from my positionality is my use of the Kalabari masquerade. As shown in the art of the British-Nigerian artist, Sokari Douglas Camp (1995a), the art and theatre of the Kalabari masquerade play has multiple implications for gender and borders. In her sculptural practice, Douglas Camp underscores that men perform these masquerade plays, while women are the spectators. In certain cases, these gendered performances see men play as women and effeminate masquerades, as in those of *Big Alagba and Sekibo* and the *Dandy Masquerade* (Douglas Camp, 1995a; Douglas Camp, 1995b). These masquerades perform gender identities that would be otherwise taboo in Kalabari patriarchal culture. This is highlighted by their role in Kalabari culture as border creatures. As Horton (1962, p.201) states, in Kalabari Ijaw, the masquerades are called *owumapa*—meaning “water people.” These water people (*owu*) are spirits that “keep the waterways open; and if they should leave their domains these will silt up and eventually dry out” (Horton, 1962, p.201). In this sense, the masquerades are agents of the border. Considering the role of the *owu* as a border agent and identity crosser, I redesign the Kalabari masquerade for the digital border as an agent of opacity and “strategy of trickery” (Glissant, 1996, p.21) against colonial dissection.



Figure 5. A still frame from *Border Ritual 2.0*.

In the above image, the player character arrives at the border, where there is already a trickster token waiting for her.

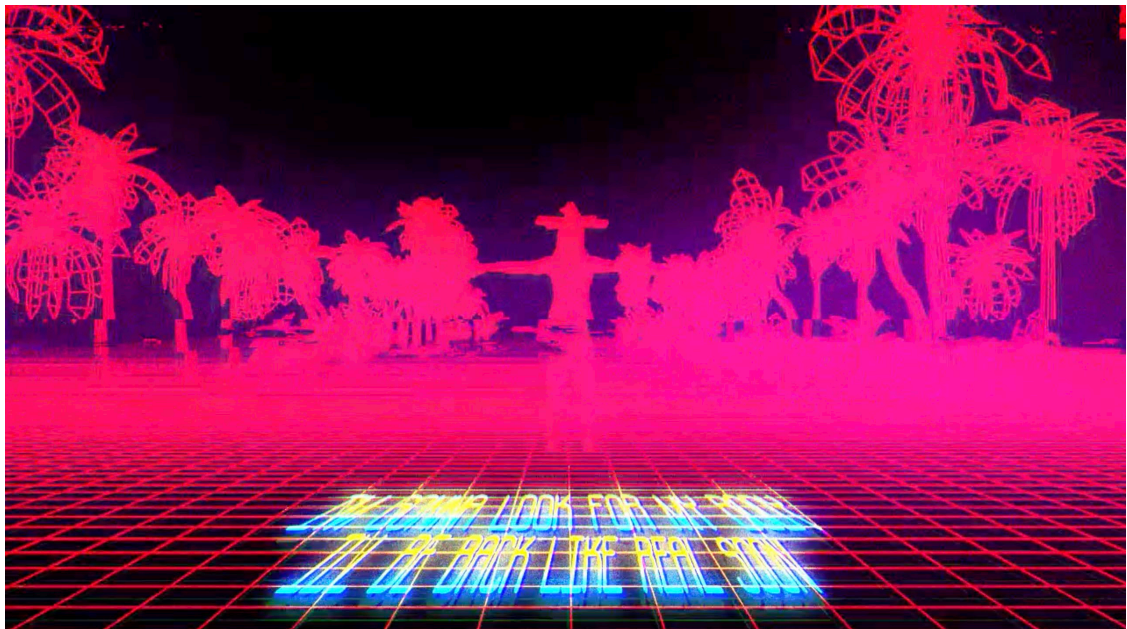


Figure 6. The trickster in a virtual border.

This image is part of a video loop played alongside *Border Ritual 2.0*. It highlights the bodily interventions of biometric surveillance using the lyrics from Solange's (2016) song *Weary*: "I'm gonna look for my body. I'll be back real soon."

The stated Kalabari masquerade is a recurring figure in *Animating Opacity*. In this context, it takes the form of the trickster. This trickster appears in *Border Ritual 2.0*, *Dreams of Disguise* and *Dreams of Disguise: Errantry*. I conjure this trickster from my pre-colonial heritage of the Kalabari masquerade, placing it within the context of other tricksters—from *Weesageechak* of the Cree Indigenous Americans (Horne, 2004) to *Ananse* of Akan-Asante people in Ghana (Ebewo, 2001). Siting the trickster at the border is a direct resistance to the colonial “imperative of identification” (Raqs Media Collective, 2005, p.163). As Raqs Media Collective (2005, p.163) state, this imperative is a counterpoint to the “dream of disguise”—a dream that generates figures such as impostors and tricksters that aim to transcend identities and boundaries. The incorporation of the pre-colonial tricksters into a criticism of colonial surveillance in *Animating Opacity* brings these defiant figures and their subversive identity practices into the biometric rituals performed in the digital era. The existence of these tricksters is a manifestation of the dream of disguise and opacity. The accompanying artistic practices here are abundant with instances of these tricksters in their varying forms. Bringing them into the context of digital and visual technology, these tricksters are duplicated, modified, re-formatted and uploaded unto data servers. They are located in data centers as in *Dreams of Disguise*, virtual borders as in *Border Ritual 2.0* (see Figures 5 and 6) and even analog technologies such as the zoetrope from *Border Ritual*. These figures appear in moments where black and brown bodies are subjected to acts of dissection, intervening on these moments with an assertion of opacity.

Biometric Inscription: Marking Bodies as/of Documents

Denotatively, biometrics is “the ‘measurement of life’ [or the *bio*]” (Ajana, 2013, p.3). Connotatively, it is the “science of using biological information for the purpose of identification or verification” (Magnet, 2011, p.21). At the foundation of this science is the assumption that the “human body is a stable, unchanging repository of personal information from which we can collect data about identity” (Magnet, 2011, p.21). Biometrics relies on this assumption of the immutability of the body for its core functions of “identification” of a biometric subject in terms of a one-to-many (1:N) search of a database (Nanavati, Thieme, and Nanavati, 2002, p.29) and “verification” (p.12) that a biometric subject is who they say they are the one-to-one (1:1) probability. The latter method of verification consists of matching a presented biological trait (such as an iris scan, fingerprint or facial pattern) or behavioural trait (such as signature pressure or gait pattern) to its recorded template within a given database. The identification method, on the other hand, relies on the comparison of the presented biometric data to data on the record. As a scientific practice that requires the computation of large sets of information for identification and verification, biometrics aims for replicable and standardizable methods that reliably disclose the “root identity” (Pugliese 2010, p.100)—the ground truth—of their subject. This depends on the supplementation of uniquely measurable identifiers such as fingerprints, iris patterns and facial landmarks with those that yield broad results such as race (ethnicity), age, and gender. These are called “soft biometrics” (Ross, Nandakumar, and Jain, 2008, p.335)—extrinsic biological traits, that provide contextual or secondary information in the process of biometric identification.

This chapter emphasizes that race is not simply a ‘soft’ extrinsic biological trait within biometric identification systems. If biometrics is the science of using bodily information for identification, then race is an essential biometric trait. As Pugliese (2010, p.126) writes, “there is no such thing as a body that is not always already marked by a constellation of social descriptors (including ethnicity and gender) prior to the moment of biometric processing.” To minimize race as an extra-biometric trait is to assume that biometrics can exist outside of race or that race can be objectively removed from the process of biometric identification. This chapter problematizes the stated assumption. It centers race as a key marker of identity in biometrics. It posits that the sectioning out of race as a ‘soft biometric’ obscures the mediating acts of these technologies over the body and vice versa. As addressed in the previous chapter, obfuscation is necessary for the transformation of an abstract part of the body (for instance, the gene) as a real concrete thing (Haraway, 1997). Subsequently, the problematization presented in this chapter stresses that contemporary biometrics rely on such obscurantism to lay its claim of technical and racial objectivity (Gates, 2011; Haraway, 1997; Magnet, 2011). The concealment of the processes of biometricization—the abstraction of the body that occurs in order to make a biometric marker—only concretizes these identifiers. It cloaks centuries of experimentation, dissection and measurement of the body that leads to the production of the biometric body.

The primary aim of the current chapter is to highlight the “mediated process of identification” (Gates, 2011, p.13)—the biometricization of the body—in order to disrupt its claims of neutrality and objectivity. To this effect, the following analyses build on Ajana’s (2013) postulation of biometrics as a biomedia, expanding on the theory of ‘biomediation’ as conceptualized by Thacker (2004). While Thacker’s theory emphasizes on the mediation of the technical by the corporeal and vice versa, Ajana’s

theory relates specifically to biometrics. She writes that “biometrics renders the body itself as both the ‘medium’ (the means by which ‘measurement’ is performed) and the ‘mediated’ (the ‘object’ of measurement)” (Ajana, 2013, p.23). The body is the medium in that it is through the informatization of the body that biometric processes are made possible. The body is simultaneously mediated and sectioned into to readable parts for it to be accepted as a biometric object. It is also in these mediated processes that biometrics performs racial inscription on the skin. This is the topic of this chapter—the processes of bodily mediation through which biometric technologies mark the body with race. These processes are explored within the following sections using case studies, works of art, and critical responses. These accounts highlight the early identification systems from which contemporary biometrics gains its heritage of racial inscription.

The first section lays the groundwork for understanding how race is written on the body through biometric technology. This section applies the theory of ‘epidermalization,’ as introduced by Fanon (2008) and expanded on by Hall (1996), to read earlier practices of identification. Specifically, the inscription of race will be linked to the branding of the skin with a mark as a method of imposing identity onto the body. The analysis of branding expands on Browne’s (2015) connection of the marking of the slave body to the biometric inscription of racialized identity onto the body. Therefore, this chapter disrupts the customs of biometric historicization that dissociate biometrics from their racialized pasts. It prioritizes alternative historicizations of biometric surveillance in search of moments of inscription—the moments where race is placed on the body as a result of biometric mediation. One of such moments is addressed in the case study on the identification practices in apartheid South Africa. During the apartheid-era, race was inscribed onto the African body through pass laws enforced with

the biometric surveillance system—the passbook or reference book (Breckenridge, 2014). The reference book, developed from a colonial prototype, was imposed to restrict and monitor the mobility of the black South Africans through racialized spaces in the Apartheid state. The works of art—Sue Williamson’s 1990 installation, *For Thirty Years Next to His Heart* and Gavin Jantjes’ 1974 screen print, *Classify this Coloured* (1974-5)—present a glance into apartheid-era biometric re-mediation of the body. These art pieces will be explored for their insight into the subjectivities of black South Africans living under biometric surveillance.

As an early example of state-sanctioned, standardized biometric system, the reference book highlights the role biometrics also plays in inscribing racialized space onto the body of the migrant. This is addressed in the subsequent section, which expands on the contemporary applications of biometrics and their methods of inscribing race onto the skin. In the analysis of the state of race in contemporary biometrics, is the explication of the tensions of biometrics and race. This analysis takes form in the spatializing power of biometrics to write racialized zones onto the bodies of migrants (Pugliese, 2010), the biometric imprisonment of migrants of colour that restricts their movements (Sanyal, 2017) and the issue of the biometric failure of bodies othered through race, gender and disability (Magnet, 2011). These issues stand as a counterpoint to the increased application of biometrics in every facet of life, from consumer electronics to banking and national identification schemes. It is with the ubiquity of biometrics consideration that this chapter concludes by stressing the need for what Browne (2015) terms ‘critical biometric consciousness.’ As a response to the ubiquity of biometrics and their rapid computational advancement, critical biometric consciousness does not vilify biometrics but calls for new modes of understanding. Critical biometric consciousness calls for new ways of living with and subverting

biometrics that studies their histories and their power to inscribe race and to be mediated in turn by the body. It demands changes in policy, media and organizational narratives about biometrics. It asserts the need for individual literacy about these technologies. This chapter concludes by stressing the importance of these changes for our collective biometric futures. Therefore, this chapter aims to disrupt the technoscientific claims of biometric neutrality to reveal the practices of bodily abstraction and racial inscription imbued into everyday biometric applications with the goal of encouraging a critical biometric consciousness and opacity.

On Race and Biometrics: Historicizing Racial Inscription

Religious institutions during the Middle Ages had the singular power to issue travel passes, licenses to beg, birth, marriage, and death certificates alongside other identification documents. As Groebner (2007) explains, this system of governance was not dependable. Several clerics could not read, and the system of issuing and storing identification documents lacked a standardized mode of categorization to avoid duplicate entries or combat impersonation. Identification depended on the description of external or “distinguishing marks” (Groebner, 2007, p.84). Thus, the Middle ages depended on the use of insignia such as badges, seals, and coat of arms in the identification of individuals as married, licensed beggars, royal messengers or dignitaries. These modes of identification moved on to the “writing on the skin” through branding, scarification, and dissection as a technique of establishing the truth of identity (p.108). As Groebner (2007, p.97) notes, “the human epidermis can be understood and deciphered as a document, record or archive.” This is corroborated by Basset (2006), who states that the skin functions as a document of identity through the recording of scars and interventions on the epidermis. From Basset’s account (2006), these documented interventions take focus on physical form, through medical procedures

such as surgeries. However, as stated in the previous chapter on dissection through the visualization of the body, these interventions can also be figurative or symbolic. One of the ways such interventions are symbolic is in the marking of the race ‘negro’ or ‘black’ on dark skin. When the symbolic mode of inscription is brought into question, writing on the skin takes on a different meaning. This section first addresses the symbolic inscription of race, after which it interrogates branding as a mode of physically marking the black body as an object. In addressing branding, as analyzed by Browne (2015), this chapter highlights that physical acts of inscription that place race on the skin also belong in the biometric archive. This section concludes with a brief introduction to the biometric archive as characterized by the works of Galton. The subsequent account of the biometric archive is not an attempt to revisit the history of biometrics, which has already been covered by scholars such as Cole (2002) and Pugliese (2010). The following account of the archive is to set the stage for a broader analysis of the modes through which biometrics abstract the body in order to measure life. It serves to interrogate the ways in which biometrics inscribe race with the purpose of, to paraphrase Lyon (2007, p.14), influencing or managing life.

‘Race’ is commonly deduced by the colour of the epidermis. It is taken for granted as a biological fact. However, “bodily insignia — black skin, thick lips, curly hair, and penises ‘as big as cathedrals’ and the rest,” (Hall, 1996, p.21) does not make race. Black skin, thick lips, and so on, are the “*markers* of difference” which function to produce race (p.20). These markers, as Hall states, are frequently mistaken as the biological proof of race. The signifiers (bodily insignia) are mistaken for the signified (race). As Hall notes, bodily insignia are empty symbols placed with meaning through a discursive regime. For Talmor and Mussai (2014, p.1), this discursive regime consists of archival practices that “constitute history, popular iconographies and artistic canons.”

For Fanon (2008, p.84), the regime consists of “legends, stories, history, and above all historicity” that connect epidermal signifiers to race. This regime is made from narratives that place meaning on the empty symbols on the body. Thus, the colour of the epidermis as black, brown, or white, is given racial meaning as Negro, Arabic, or Caucasian. Within these narratives in discursive regimes are epithets on what it means to be a Negro or black person on the intellectual, cultural, and spiritual level. It cannot be stressed enough within this chapter that, prediscursively, ‘black skin’ has no meaning until after these narratives create a discourse around this signifier. These are acts of ‘epidermalization,’ using Fanon terms (2008). They tattoo race and the implications for superiority and inferiority onto the body. Hall (1996, p.16) best defines epidermalization as “literally, the inscription of race on the skin” (Hall, 1996, p.16). It is with the inscription—the writing of dark skin tones as Negro or light skin tones as Caucasian—that race as an identity is constructed. Just as the physical searing of the skin with a hot iron (stigmata-ization) creates a distinguishing mark of identification, so does the inscription of race on the body create such marks of identification.

As discussed earlier, ‘race’ is written on the skin through symbolic processes of epidermalization. This does not exclude the physical and technological interventions that attempt to bind racial identity on the skin. Within the biometric archive, this is the moment of biometricization, wherein epidermal interventions are made for the purposes of identification. While, the current section will move on to highlight the biometricization of the body by their early inventors—Bertillon and Galton—as key moments in the history of the science, it is important to first place the traumatic branding of slaves during the transatlantic slave trade within this archive. In doing so, the chapter follows the notion posited by Talmor and Mussai (2014) that dominant acts of inscription within the archive can be transformed through subversive acts of

inscription. Therefore, in positioning branding and the case of the South African reference book within the biometric archive, this chapter highlights the mode through which race is marked both physically and symbolically in the process of biometricization. It highlights, paraphrasing Pugliese (2010, p.126), that early biometrics contribute to the apriori marking of race on the body before each moment of biometric identification.

Branding is an act of “racializing surveillance”—“technologies of social control where surveillance practices, policies, and performances concern the production of norms pertaining to race” (Browne, 2015, p.16). Branding over the skin of a slave was an act that tagged the black body as the property of a slave owner. Therefore, the act of writing on the skin through branding or imposing a traumatic injury “fixed the black body as slave” (Browne, 2015, p.90). Browne (2015) positions branding as a proto-biometric technology substantiated by the deployment of runaway notices and narratives to fix the black body to its “owner” across space and time. In her investigation of the distressing archives of black surveillance, Browne gives an account of the slave owner, Thomas Thistlewood. This account focuses on Coobah/Molio a 24-year-old woman Thistlewood described as “4 feet 6 inches and 6/10 high, about 15 years of age” when he bought her in 1761 (cited in Browne, 2015, p.101). Coobah had run away even after Thistlewood had flogged her and branded her forehead as punishment for a previous escape. Initially, she had a brand on her right shoulder with Thistlewood’s insignia—two capital T’s (TT) in a downward-facing triangle. The markings on Coobah skin meant that she could be traced using an appropriate description of her distinguishing marks in a runaway notice. In this sense, narrative forms of surveillance served a critical purpose, as Thistlewood remained informed about Coobah’s movements, through people’s recognition of her marks. Aided by this

early identification mechanism, Thistlewood eventually recaptured Coobah and sold her. These violent writings on the body, as recorded in Thistlewood's diaries and regularly described in runaway notices, highlight the dependence on the skin as a marker of identity in early identification practices. However, these proto-biometric methods that violently placed distinguishing marks on the skin were overshadowed by the new modes of marking the body. These new systems were created by people such as the French policeman Alphonse Bertillon and the British eugenicist and statistician Francis Galton. They were devised to be standardizable reproducible. These new methods of biometricization, as documented by Cole (2002), brought with them their own modes of inscribing race on to the body. Interventions on the body based on these new practices would be based off scientific experimentation that attempted to essentialize identity using data extracted from the body.

For Bertillon, inscribing identity on the body meant making specific marks of measurement over the bodies of criminals. Bertillonage, the process of identification the police official had named after himself, consisted of three procedures—11 elaborate measurements of the body, a *portrait parle* that described the body and its distinguishing marks in a standardized language, and a photograph that acted as a visual description of the body (Cole, 2002). The 11 marks were placed on pre-determined sections of the body, such as the width of the cheek, the length of the ear, and the height of the body (Cole, 2002, p.37). The underlying assumption of these marks or “osseus lengths” (Cole, 2002, p.37) was that they were not likely to change after adult development. Following Cole's (2002) account, complexity was the advantage and the downfall of the Bertillon system. While the numerous measurements provided adequate information for identification, the procedure required training and discipline to follow Bertillon's markings to the book. This meant that Bertillonage relied on direct

measurement by its inventor for accuracy. Consequently, Bertillonage was replaced by fingerprinting. Marks in this system are those placed by Galton due to his typification of patterns and landmarks on the epidermis on the tips of the fingers.

While Bertillon's system only noted race in its description of its subjects, Galton intended that his statistical studies of the patterns on the finger would mark racial and hereditary differences (Cole, 2002). As a eugenicist, racial differentiation was the crux of Galton's scientific explorations. The biometricization of the finger rested on Galton's discovery of the different types of epidermal patterns on the skin—arch, whorls and loops (Cole, 2002). In his attempts to create a racial classification of fingerprints, Galton found the statistical probability that two people could share the same patterns on their fingertips to be 1 in 64 billion (Cole, 2002, p.80). He marked this difference not only with the type of patterns on the fingerprints but also the lines and ridges on the fingerprint—how they ascend, descend, bifurcate and merge. However, he could not correlate race to these patterns on the finger. From his failed project of finding these racial correlations to his failed project of finding racial correlations in facial patterns (Gates, 2011; Sekula, 1986), Galton desperately attempted to inscribe race on to the body. He would persevere with these experiments, as Cole (2002) notes until his death to no avail.

Explorations of fingerprint patterns as a signifier of racial difference did not stop with Galton. As Cole (2002) highlights, for the process of fingerprinting to be considered a legitimate biometric method—instead of a eugenicist project—fingerprint examiners had disassociated this process from the latter science. They had to return the fingerprint into “an empty signifier—a sign devoid of information about a body's race” (Cole, 2002, p.100). Therefore, they had to obscure the context from which the biometric method developed and the purposes for this development. As the first

standardized biometric process (Cole, 2002)—still widely used in contemporary identification systems—fingerprinting set this precedent of neutralizing biometrics. Placing the printing of fingers within the colonial context of dissection as addressed in the case of Kōnāi in the previous chapter, it becomes a contentious process steeped in colonial racism. Its history shows a stark contrast to the claim of racial and technical neutrality (Gates, 2011; Magnet, 2011). Nonetheless, there are numerous moments within the biometric archive, where race is placed at the centre of identification alongside other primary methods of biometric identification. This is illustrated in the reference book system of apartheid South Africa.

Biometricizing Race: On the Measurement of Life in Apartheid Era South Africa

Apartheid South Africa was regulated through the internal system of identification called the reference book. The book was created as a result of state acts that aimed to control the movement of the black body and solidify white supremacy in South Africa. The legal provision for reference books was mandated principally by the 1952 Abolition of Passes and Co-ordination of Documents Act or Natives Act (Breckenridge, 2014). As part of the Natives Act, every person in South Africa was required to register for an identity document, during which they would be classified into their racial group and assigned an identification number. This law was an extension of the abhorrent 1950 Population Registration Act that officially classified race into Whites, Indian, Coloured and Black (Breckenridge, 2014). In addition to these laws was the Group Areas Act, also passed in 1950 (Breckenridge, 2014). This law mandated the spatial demarcation of the population by race. Therefore, the reference book acted as an internal passport for black South Africans who, sequestered into the homelands or the Bantustans, would need it as a proof of employment and permission to access the urban white areas. Black South Africans were required to always have a passbook on them or

risk jail time (Williamson and Dawes, 2003). This passbook was informally called the Dompas or dumb pass, due to its minimization of speech in the process of identification. It recorded information on tax, employment, criminal activity and movement of all black South Africans from “registration to death” (Breckenridge, 2014, p.152). If biometrics is the measurement of life (Ajana, 2013, p.3), the South African reference book was ‘The Book of Life’ (Breckenridge, 2014, p.171). The book documented and dictated life for black South Africans during apartheid. Emphasizing the racialized nature of biometrics in South Africa, was the requirement that only black South Africans needed to be fingerprinted for this identity document (Breckenridge, 2014). Therefore, in the socio-political order of the apartheid state, biometric identification entirely depended on race. As Breckenridge (2014) notes, race was assigned at the behest of the state official to the utter detriment of the lives of black South Africans.

These moments of racial classification or assignment in apartheid-era South Africa push the definition of biometric technology to problematize the dismissal of race as a soft biometric. They show how arbitrary these processes of biometric inscription can be. After all, if biometric data can be collated from such things as the patterns of the epidermis of a thumb, why can it not be collected from testing the texture of the hair? If the fingerprint can be biometricized, the hair and other parts of the body can be biometricized as well. The practice of inscription—a method of identification entirely dependent on ‘soft biometric’ methods—is enacted in the pencil test (Kerr, 2006). This was a test conducted when the subject was racially ambiguous. It consisted of a process wherein the state official would determine the race of a subject by running a pencil through their hair. In this test, the body is inscribed upon—branded as black or coloured—through the texture of the hair as determined by the friction against the pencil. If the pencil could glide through the hair of the subject, they would be classified

as coloured. However, if the pencil struggled to move through the curls of the hair, they would be classified as black. As Kamalu (2007) notes, families were split on the basis of curl patterns, as hair texture varies individually. The pencil test stresses the premise of this chapter that the body is mediated by biometric technology, which in turn is mediated by its socio-political context. For example, the fingerprint as a biometric identifier does not necessarily exist on the body. It is created through the concretization of an abstract form—patterns on the finger—and methods of reading abstraction for the purposes of individual identification. Through biometric construction, the fingerprint has been placed on the body, replacing the abstract marks on the digits. The fingerprint does not exist as a thing in an of itself (Haraway, 1997) without that moment of the biometricization that transforms it to a real thing. The existence of the fingerprint on the body arises from its technological mediation and concretization as a biometric identifier. Thus, the technological experimentation occurring within the pencil test highlights the mediation of the body. It demonstrates that given a conducive social context, even a pencil can become a biometric technology—it can measure the hair as biological information for the purposes of identification. In this test, the pencil is remediated as biometric technology, and the hair is a biometric trait. The test illustrates the underlying notion in this chapter that biometric technologies as the measurement of the ‘bio’ with the aim of identification, are racializing surveillances that produce norms regarding race (Browne, 2015, p.16).

While the moment of racial assignment declared the official group a South African belonged to, it was the reference book issued afterwards that truly bound race and its implications onto the skin. As black South Africans were always required to have this book, the passbook was an extension of the body of black South African. Sue Williamson’s 1990 project *For Thirty Years Next to His Heart* (Williamson and Dawes,

2003) illustrates binding of race on the skin of a South African man, John Ngesi. As noted in Williamson and Dawes (2003) account, Mr. Ngesi's life was so bound to his passbook that he still carried it in his pocket, years after it had been outlawed. *For Thirty Years Next to His Heart* consists of framed photocopies of the pages of Ngesi's reference book. The book contained the indexed pages that document Ngesi's movements, employment, and taxes. The sole author of the passbook was the state, as Ngesi would have been committing a crime if he had intentionally altered it (Breckenridge, 2014). The information page of this reference book contains a passport image, Ngesi's gender—"MANLIK MALE"—his name, Bantu group, tribe and the date of issuance. As seen in Williamson and Dawes's (2003) documentation of the installation, handwritten notes and stamps from state agents cover Ngesi's worn-out book. Certain pages of the brown leaflets have multiple stamps on them. The accumulation of these marks resembles brandings—all with the aim of keeping Ngesi's black body in its place. Only a few pages lack any markings. These are the final pages left for commentary. With or without these marks, the reference book inscribes race onto the body. As the South African artist, Gavin Jantjes writes in his 1974 screen-printed work, *Classify This Coloured*, "the racial label put on a non-white child at birth is not only a badge of a race, it is a permanent brand of inferiority, the brand of class distinction. Throughout [their] life [their] race label will warn all concerned which doors are open to [them], and which are closed" (Tate, 2005, no pagination).

In *Classify This Coloured* Jantjes dissents against racial branding within the pass system (Tate, 2005). In this work, the artist presents his identity pass with a note and a passport photograph appended to it. Similar to Ngesi's, Jantjes' document bears a passport photograph, his gender, his name, identification number and the date of issuance. However, Jantjes' identity card highlights the central difference this card

aimed to exert—the state-sanctioned assignment of superiority and privilege according to one’s proximity to whiteness. His card marks him as “KAASPE KLEURLING—CAPE COLOURED” and an “S.A. BURGER—S.A. CITIZEN,” while Ngesi’s marks him as “XHOSA,” (Williamson and Dawes, 2003) a group under the Bantu or Native racial category. Jantjes writes about the classification of race and superiority in the note he appends to his document. He states if a person is “classified as “Bantu” [they are] in every way made inferior both to “whites” and “Coloureds”—in education, employment, earnings, trade union rights and everything else concerned with making a living” (Tate, 2005, no pagination). However, the strength of Jantjes’ work is not in such words of dissent against this classification. The strength of this work is instead in the artist’s subversion or undoing of the foundation of racial classification—that race is a concrete and immutable identity. This is demonstrated in the passport-sized photograph the artist appends to his identity card. In this image, the artist’s hair is combed out in an Afro. The appended image contrasts the official passport photograph on Jantjes’ identification card wherein the artists wears his hair short. Based on the pencil test, in which the texture of a person’s hair determines their racial classification, the sight of Jantjes’ appended photograph would have incited the classification of Bantu. By inviting such a comparison, Jantjes highlights that just as race can be inscribed on the body through state actions, so can it be mediated through actions of the subjects as a mode of resistance or survival. Just as the state imposes racial transparency, so can the individuals within it assert their racial opacity. As Kerr (2006) highlights, in systems based on racial prejudice such as apartheid South Africa and the Jim Crow era in the United States, black people have had to ‘pass’ as white (p.7) in order to survive. Placed within the context wherein race is positioned as a primary biometric identifier, Jantjes implied passing as coloured would be considered a spoof. Nixon, Aimale, and Rowe

(2008, p.405) define spoofs as “a counterfeit biometric that is used in an attempt to circumvent a biometric sensor.” Therefore, Jantjes’ passing undermines the biometric system and challenges the classification of race underlying the creation of the reference book. In this sense, Jantjes’ work challenges the primary assumption in biometrics that the body and race are unchanging.

As a case study, apartheid-era South Africa and its biometric system as symbolized by the reference book, illustrate that soft biometrics can be at the helm of any identification system given the appropriate socio-political mediations. These systems that rely on these ‘soft’ biometrics are capable of more violence than their ‘softness’ imply. While these methods leave a damning legacy, as Cole (2002) notes, those with vested interests in these technologies toil to obfuscate these histories. One of such modes of obfuscation is the very categorization of these biometrics methods as ‘soft’—or extrinsic to biometric identification. This categorization attempts to remove all signs of prejudice by dehistoricizing these technologies. The invested parties stress biometrics as a scientific, race-neutral process while repeating the racialized violence of the past (Magnet, 2011). With the increasing applications of biometrics in everything from border management, to access control management and consumer electronics, it appears that this obfuscation has been successful. They have been so successful that even countries that should be wary of such technologies—countries with histories of atrocious biometric practices—scurry to create nationwide biometric programs that document all their residents without reflecting on the consequences of these technologies. This is the case in Post-apartheid South Africa, which inherited the legacy of the apartheid biometric state (Breckenridge, 2005). As the country is faced with the challenge of archiving the fingerprints collected as a part of the passbook registration, it attempts to create a new system of identification based on fingerprinting.

This new system is the Home Affairs National Identification System (HANIS)—a database that would be “lynchpin of official identity, life, death marriage and citizenship in modern South Africa” (Breckenridge 2005, p.276). Utilizing the global standard for fingerprint identification—the Automated Fingerprint Identification System (AFIS)—as its primary method of biometric identification, the HANIS was proposed to include smart cards that could link the functions of transportation, banking, social development and welfare (Breckenridge, 2005). This system would make South Africa a truly “networked state” (Breckenridge, 2005, p.278) with access to the lives of its citizens that the apartheid-era state would only fantasize about. The creation of the HANIS follows the trend of biometric governance (Ajana, 2013). This trend is exemplified in the conception of ‘Digital India’ through the success of the Aadhar biometric system (Unique Identification Authority of India, 2016) and the triumph of state capitalism in the Nigerian government’s collaboration with Mastercard to create a national biometric identity and credit card hybrid (National Identity Management Commission, 2014). Biometric governance is also deployed in border policing as in the cases of The Automated Biometric Identification System (IDENT) in the USA and European Dactyloscopy (EURODAC) database in Europe that manage migrants’ identities (van der Ploeg, 2005). These new biometric systems incorporate the inscriptive practices of their earlier counterparts, using the language of digital democracy and technoscientific objectivity. Magnet (2011, p.14) explains this as “the paradox that biometric technologies are deployed in the name of freedom at the same time as they hold particular bodies static through the production of new forms of imprisonment and immobility.” Expounding on Magnet’s statement, it can be argued that these new biometrics bring on their unique modes of inscription.

New Forms of Inscription: The State of Race in Contemporary Biometrics

With the movement from the earlier biometric systems to the current digitization of biometrics, comes new modes of inscribing race on the skin. These modes, while still linked to the legacy of racialization, are obfuscated by government agencies and other benefactors of biometric technology (Magnet, 2011). As stressed in the introduction to this chapter and the previous sections, obfuscation aims to naturalize biometrics and support the claim of race neutrality (Magnet, 2011). Further obfuscating the inscription of race is the specific nature of the medium, as biometrics takes on digital form. Contemporary biometrics relies on the digital processes wherein the body disappears (Lyon, 2001) as a physical form but exists in low-resolution ones and zeros. The digitization of the body—the rendering of the body as ‘machine-readable’ (van-der Ploeg, 2005) information— still does not exempt it from its socio-political context. Rather, digitization exacerbates the litany of problems apparent in early biometrics. As van der Ploeg (2005, p.48) notes, the machine-readable body, within the new system of biometrics is positioned as “more truthful than the speaking persons³ themselves, who, in the process of being bypassed, are defined as “suspect”” (p.48). This minimization of speech from the process of identification, as seen in the Dompas (or dumb pass), is hard-wired into contemporary biometric systems. Furthermore, the machine-readable body establishes new technological mediations of the body as, the “digital rendering of bodies allows forms of processing, of scrolling through, of datamining peoples’ informational body in a way that resembles a bodily search” (van der Ploeg, 2007,

³ By “speaking persons” van der Ploeg (2005), notes that several moments of biometric scanning include some form of interview or speech, especially in the case of migration, on which the scholar directs her attention. However, as highlighted in van der Ploeg’s quote, speech is irrelevant without accompanying documents or biometric information.

p.48). Issues of bodily integrity and privacy arise if the “owner” of the body need not consent nor be present for a body search. Where contemporary biometrics specifically continues the legacy of earlier forms of identification is in the resulting re-inscription of “identities shaped by long-standing social and political inequalities” (van der Ploeg, 2007, p.78). However, there are several modes through which it is entirely different from its predecessor. This section addresses these new forms of inscription. This section breaks down these new practices of inscription in its analysis of how biometrics inscribes race on the body through its spatializing practices. It highlights the new resistances to biometric technologies, comparable to that of Jantjes, that respond to these ‘acts of inscription’ with their own subversive acts of inscription (Talmor and Mussai, 2014). The subsequent section then concludes by emphasizing how new biometrics inscribe race on the body through failures in their processes of identification and verification.

Speaking to the spatializing power of contemporary biometrics, Pugliese (2010) coins the term geocorpographies. A portmanteau of geography and corporeality, the writer defines geocorpographies as “the indissociable relation between geopolitics, bodies and biopolitical technologies of inscription, surveillance and control” (p.92). This term best explains the power of biometric technologies to bind race and space on the body, as illustrated in the binding of race and space through the South African reference book. As Pugliese (2010) states, the “biometric body is always already geocorporgraphically [...] mediated” (p.160). Therefore, computational processes of surveillance coalesce with social and geopolitical tensions to bind the body to specific racialized zones. In the explanations of ‘geocorpography’, Pugliese (2010) cites van der Ploeg’s (2005, p.133) statement that due to increased access to information technologies, borders have become part of the embodied experience of people such as

undocumented migrants and refugees. This is where new biometrics and their predecessors have their most pronounced difference—in the persistence of the inscription of race onto the body via databases which are connected through international relations. Amoore (2006, p.348) terms this network of biometric technologies and bodies, the “biometric border.” It is exercised in a way that the bodies of migrants are “the carrier[s] of the [national] border” (Amoore, 2006, p.348). Therefore, the body of the migrant becomes a virtual border, which “envisages drawing a clear, clean and unambiguous line between legitimate *low risk and illegitimate* high risk mobilities (a line that cannot be drawn, but is always in process of being drawn)” (p.348). These technologies ensure that despite the location of the migrant—at school, work or at the bank—they are always placed in the border. As van der Ploeg (2005), emphasizes, the deterritorialization of the border into the body of the migrant could be a “mark of illegality” (p.109) for some or a signal of “open borders for others” (p.125).

It is important to highlight that while digital biometrics deterritorialize the border, they also enforce space as a geographic zone. This is the paradox of freedom and imprisonment that Magnet (2011, p.14) addresses. The Calais ‘Jungle’ highlights the biometric enforcement of the border that attempts to detain the migrant body in the primitive space outside of the civilized zones of the nation (Hameed, 2015). The racial connotation of the border between the UK and France as a ‘Jungle’ cannot be overstated, as illustrated by *Qu’ils Reposent en Revolt*, Sylvain George’s 2010 film about Calais. A moment from this film depicts the biometric enforcement of racialized space on the body of a migrant, as he attempts to un-mark himself through scarring his finger. In a moment of “corporeal malediction” (Fanon, 2008, p.84) the Eritrean man, Temesghen, internalizes the objectification of his body as data and transfers the same

resentment he would have for his identity documents to his hands. Temesghen words are cited in Sanyal's (2017, p.15) translation from French to English:

If it was possible to cut this one and throw it and bring another hand, I was doing that. But it is not possible. Just burning my hands. I don't know what happens to my hand. They are making us slaves, you know, slaves of (their) own country, by this fingerprint. They destroy our life. We can't go. We can't change our life.

The 'enslavement' Temesghen addresses is linked to the Dublin Regulation. As Sanyal (2017) reports, the Dublin regulation requires that asylum seekers apply and give their fingerprint at the country in the European Union in which they first arrive. Their fingerprints, including those of undocumented migrants, are uploaded onto the EURODAC (European Dactyloscopy) Database, thus tracking their movements and punishing those who attempt to leave their registered zones (Sanyal, 2017). This database makes the migrant body a geocorpography or biometric border. No matter where the migrant body is physically located, it is always connected to the border. Therefore, Temesghen's statement of being enslaved underscores that asylum seekers in Calais are geocorpographically sealed off into worlds that "render any movement impossible" (Mbembe, 2003, p.28). This position is dangerously liminal as Hameed (2015) has noted that the first countries in which most seekers would apply for asylum would be either Greece or Italy, which both have low rates of success for granting refugee status. People would prefer to be in a different country where they have better chances of gaining asylum. Thus, the thought of scarring one's fingerprint—truly becoming undocumented by the act of ridding oneself of biometric marks—is an act of defiance against biometric surveillance and geocorpographic enslavement. Moments such as these—moments of bodily mutilation with the aim of evading biometric inscription can also be read as acts of inscription. These acts subvert racialized inscriptions with their own markings. They are, to quote Talmor and Mussai (2014,

p.14), “acts of inscription” that “become [acts] of remediation.” They attempt to alter the biometric inscription of identity with their own inscription of new identities. Therefore, Temesghen’s inscription on his skin through scarring or burning is an attempt to remediate the biometric— ‘this fingerprint’—to attain a new identity and assert his spatial agency. Given the history connecting biometrics to the process of branding and dissecting the body, Temesghen’s desire to un-mark his own skin cannot be taken for granted.

Another mode through which contemporary biometric technologies inscribe race on the body is through “biometric failure” (Magnet, 2011). As Magnet (2011, p.50) notes, “biometrics fail precisely at the task which they have been set: to read the body perfectly, and in doing so tattoo permanent identities onto deviant bodies.” Biometric failure for Magnet rests in the moments wherein these technologies do not achieve their intended purpose. These moments occur frequently despite the biometric industry’s claim about the accuracy of these technologies. In fact, failure has its own categorization in biometric systems. These categories are: false matches wherein the system accepts incorrect biometric data; false non-match, where the system rejects the correct biometric data; and failure to enroll, wherein the system refuses to register suitable biometric information presented during the enrolment of data (Nanavati, Thieme, and Nanavati, 2002). As Magnet notes, these moments of failure also inscribe identity onto the body. “Demographic failures,” (Magnet, 2011, p.5) characterize practices of inscription within false matches, false non-matches and failure to enroll. The bodies that tend to “fail” are those that have already been othered in the context of race, gender and ability. Magnet gives many examples of demographic failures, such as the difficulty Asian women have with fingerprint scanners and the issues people with visual impairments have with iris scanners. In a case, she gives an example wherein soft

biometrics—dark skin tone—affects an unrelated biometric process—iris scanning deployed by both the UK Home Office and the Transport and Security Administration (TSA) (Magnet, 2011, p.29). Neither the Home Office nor the TSA had a reasonable response for why the tone of the skin would affect iris scanning. Such failures mark race on the body by excluding certain bodies as anomalous. Blas (2014) calls these “normalizing techniques,” as biometric failure dictates certain bodies as the norm while others are outliers or deviants. Within these moments of biometric failure are the legacies of the statistical analyses of racial difference as characterized by Galton’s research. These legacies are hard-wired into computational processes, as “biometric technologies are infrastructurally calibrated” (Pugliese, 2010, p.62) to read race off the body. Through failing to read people with darker complexions, these technologies continuously inscribe race on the body (Hall, 1996, p.16). Epidermalization becomes digitized as “digital epidermalization” (Browne, 2010), and the legacy of racial violence using biometrics is continued.

Altering Our Biometric Future: Towards a Critical Biometric Consciousness

This chapter has addressed the biometricization of the body, problematizing the definition of race as a ‘soft’ biometric. It has emphasized that race cannot be removed from the process of biometricization. As these moments when the body is racialized within biometrics are linked to moments of state violence, it is important to place race in biometric processes and deter the repetition of violence. This account of racialization or the inscription of race in biometrics is not meant to vilify these technologies. They are used broadly and have become an integral form of identification in the digital era. Therefore, *Animating Opacity* creates the space to formulate new counterhegemonic approaches to biometrics. “Critical biometric consciousness” (Browne, 2015, p.116) is one of such counterhegemonic approaches.

Within the framework of critical biometric consciousness, biometric technologies are not simply dystopian technologies of domination and control. They are instead simultaneously interwoven biomedias of colonial, state, and capitalist violence that are part of everyday digital life. They are used in several aspects of entertainment, education, health, and migration. Therefore, *Animating Opacity* argues for the introduction of critical understandings and applications of these technologies. Critical biometric consciousness is how Browne (2015) conceptualizes an analytical understanding and application of these technologies. She places critical biometric consciousness as a project that requires action from industries that develop these technologies, communities that use these technologies, and governments that integrate these technologies into state functions. In terms of biometric development, critical biometric consciousness calls for accountability. This accountability demands that the architects of these technologies consider the inscriptive practices of biometrics in placing identity on the body. More so, it requires accountability for the ways in which these technologies further subjugation based on race, gender and disability. For Browne, this accountability includes an acknowledgement of the histories of the biometric branding of the black body. A key aspect of accountability is the development of public education around these technologies. Therefore, critical biometric consciousness requires “informed public debate about these technologies and their application” (Browne, 2015, p.116). In this sense, critical biometric consciousness ensures that the users of these technologies are aware of the inner workings of these technologies, and how it may disadvantage or privilege them. Critical biometric consciousness includes a right to “one’s own body data and other intellectual property that is generated from one’s body data” (Browne, 2015, p.116). Consequently, critical biometric consciousness engenders political action.

Browne's conceptualization of critical biometric consciousness is informed by Thacker's (2006) "critical genomic consciousness" (p.172). Therefore, this presents a way of thinking of critical biometric consciousness as an invitation for biometric solidarity in the same vein as Thacker's genomic solidarity. Borrowing the concept of "genomic solidarity" from Fortun (2003), as a "social practice" in which "collective value [of genomes] is recognized with the appropriate collective control," Thacker envisions the possibilities of counter-hegemonic practices that subvert biocolonialism. In this same sense, it is important to envision counter-hegemonic practices that reshape biometric inscription with countering or subversive acts of inscription. Taking Browne's (2015) concept to the task, one could ask, "What are the possible futures of critical biometric consciousness and biometric solidarity?" How can race, gender, and nationality be re-written through contemporary biometric technologies and their current modes of inscription? Could it be a biometric code swap database for refugees, in the style of Heath Bunting and Olia Lialina's 1999 *Identity Swap Database* (Teleportacia, 1999)? Would this database be open and accessible to all border crossers? How can these new identities incorporate biometric failure to assert the irreducibility of the body? Would they involve the right to corrupt one's digital trace in moments where power has been abused?

In asking these questions, this chapter simultaneously proposes concepts that would benefit social and art practices on biometrics and move away from dehistoricized biometric theories that posit one-way flows of influence wherein colonial surveillant machines solely possess agency. It is important that these sorts of questions about the construction of the racialized body through technology are asked. These trajectories of inquiry offer new modes of approaching biometrics that not only analyze them but also accept that they are a significant part of how the contemporary body is and has been

constituted. These questions re-historicize biometric systems, offering sites of debate and subversion. Thus, this direction of theorization offers modes of counterhegemonic re-constitutions of the body. In simple terms, biometric technologies are and have been changing how the body is experienced, and this experience of the body is changing biometric technologies. Therefore, artists, academics, governments, migrants and citizens must collectively begin to address the histories of these technologies, the subjectivities they create, the futures they wish for these technologies, and the opportunities for opaque subversion.

Biometric Capture: Failing to Contain the Errant Body

As addressed in the last chapter, the processes of biometric identification and failure, inscribe race on the body. Biometric inscription is enforced through data capture, in which biometric information is extracted from the body and stored for processes of identification and verification. This extraction of information from bodies is an act of ‘grasping,’ which Glissant (1997a) defines as, a “gesture of enclosure if not appropriation” of identity (p.191). To grasp, for Glissant, is to create a simplistic understanding of the identity of the colonial other, confining and parsing this multifaceted other using the syntactic rules of the colonial language. Thus, grasping is a mode of making transparent the opacities of the colonial other. The counterpoint to grasping is that of errantry. Glissant’s (1997a) notion of errantry places it as a rejection of the “generalizing edict that summarized the world as something obvious and transparent, claiming for it one presupposed sense and one destiny” (p.20). If grasping is an act of enclosure, errantry is an act of freedom. If grasping reduces identity, errantry celebrates its multiplicities. For Glissant, errantry is a refusal of capture and its entire regime of knowledge. It is a relationship with movement that does not presuppose or claim absolute knowledge of the path. The errant is irreducible and un-enclosable.

Within *Animating Opacity*, biometric failure (Magnet, 2011) becomes a characterization of errantry against the enclosure of biometric capture. Failure here is placed within the context of Glissant’s (1997a) errantry and Halberstam’s (2011) queer failure. Under Halberstam’s understanding, failure is a queer anti-aesthetic. It encourages losing one’s way, “detouring,” “getting lost,” and forgetfulness (Halberstam, 2011, p.24). Within the context of queer theory, failure supports acceptance of the limitations of knowledge. The body, in this context, cannot be

reduced to simple or clear binaries based on race, gender, and so on. The body is in constant flux. If capture encloses the body, delineating it to clear-cut genders, sexualities and relational experiences, queer failure is a subversion of a clear line.

Where failure and errantry converge is in their relation to knowledge and movement. Both Halberstam's (2011) and Glissant's (1997a) concepts encourage alternative mappings and the act of forgetting. However, for Halberstam, forgetting is the unlearning of capitalist heteronormative standards. For Glissant, forgetting is linked to the creole practices of communication. Forgetting one's own language and the language of the colonial master is a necessary step to creating a new a new language for survival. In this sense, failure is a creolization (Glissant, 1997a) of language that abets opacity and dark sousveillance. Therefore, by embracing biometric failure, spaces of subverting computational capture open. In this chapter, these spaces take on a linguistic form called computational creole. These are languages that highlight the possibility of flight from capture through the disruption of these processes. These computational languages eschew the impulse to reduce people to their biological information. Within these languages, biometric failure is an expression of the truth of bodily opacity and irreducibility.

This chapter is grounded in my experiences in biometric capture rooms, as it theorizes on capture from those spaces of biometric enclosure where black bodies are held. More specifically, this chapter expands on my experiences while giving my biological data for my Nigerian passport and a Canadian visa. These experiences take a visual form in my 3-panel video loop *Dreams of Disguise* (Fubara-Manuel, 2018a). The following sections address the undertheorized connection between data capture and the colonial ordering of black bodies. They explore three formulations of capture, synthesizing imperial theories of capture addressed by Deleuze and Guattari (1989),

computational framing of capture stated by Agre (1994) and representational conceptualization of capture expanded upon by Chow (2012). Drawing on my own experience and artistic practice, alongside the Malta-born British artist, Keith Piper's *Tagging the Other* (1992), this chapter examines the "embodied state of captivity" (Chow, 2012, p.43) of black migrants in the UK. Piper's critique is contextualized in the hypersurveillance of black migrants and black citizens in the UK's early 1990s political economy. Therefore, the present chapter links the current biometric capture of black populations in the UK to the colonial and post-colonial tensions from the 1940s to late 1980s. Moving through my autoethnographic accounts and historical moments, the current chapter addresses the question "whose capt[ure] counts in the end"? (Chow, 2012, p.57) Which populations are more subjected to capture? What are the socio-political implications of such capture? Consequently this chapter addresses the disproportionate biometric capture of black populations as an act that entraps these populations in identities created through and reified by the informatization of the body.

Elaborating on the computational aspect of capture, this chapter returns to a discussion of failure and errantry. The stated discussion is encapsulated in this chapter's exploration of the work of the activist-engineer and self-declared poet of code Joy Buolamwini. *The Coded Gaze: Unmasking Algorithmic Bias* by Buolamwini (2016) tackles the computational discrimination within facial recognition technology. In this project, the engineer negotiates her visibility as a black woman who writes code in a white mask to render herself visible to an algorithm that refuses to recognize her. Buolamwini's struggle for visibility while coding offers an insight into the problematic writing of race in biometric algorithms. Instead of arguing for recognition with Buolamwini, this chapter positions 'biometric failure' (Magnet, 2011) as a departure

from the imperative of capture that opens opportunities for new languages of computational creole.

Theorizing Capture: Imperial, Computational and Representational

In October 2017, I visited the Nigerian High Commission in London in the hopes of renewing my passport. I had already filled several preliminary documents online, which I had printed and brought along with me. I presented my documents to a person who I assumed worked there. He directed me to the doorman, from whom I would collect my ticket number. The doorman investigated my previously printed booking slip along with the documents I had printed and the older copy of my passport. He handed me a stub with the number—194—which appeared on the screen, then granting me the permission to approach the glass-sealed counter where I would again present my printed documents and old passport. With my expired passport properly inspected for the third time in five minutes, I moved back to the row of chairs where I watch the screen for my number. The screen beckons me to move to the biometric waiting room, which is up a flight of stairs. On the second floor across an approximately five-foot-wide corridor, stood two rooms adjacent to each other—the biometric waiting room and the biometric capture room (see Appendix C.1 for illustrations of the waiting and capture rooms excerpted from my journal). I walked into the door of the biometric waiting room, where Nigerian movies and news from the Nigerian Television Authority (NTA) played on a large screen. This room was filled with black people waiting to have their data captured for their passports. As one of the largest gathering of black people I have ever seen in the setting of data capture, the symbolism of the national political dialogue about the state economic programs playing onscreen alongside the bureaucratic classification of citizens was not wasted on me. I took my empty seat and wait for my number to be called up for biometric capture.

My passport would be the 2007 iteration of the Nigerian travel document. This passport is mired in a long history of geopolitics between Nigeria and Britain. As Esah Ogbu (2015), the Assistant Comptroller General of the Nigerian Immigration Service (NIS) states, the first iteration of the Nigerian passport was implemented by the British government following World War II (WWII) in 1948. Due to the British Nationality Act 1948, citizens of the Commonwealth could travel to the UK and its colonies using their passports as identification (Solomos, 1988). For those in the Nigerian Colony, the document issued was called the British West African Passport (Ogbu, 2015). The document stayed in use until Nigeria gained independence from the British Colonial rule in 1960 and joined the Commonwealth Nations. With independence came the second iteration of the Nigerian travel document and its global devaluation. Following the UK's racist and anti-immigrant tensions of the 1960s and 1970s, Britain moved away from its imperial ambitions towards the trend of globalization (Solomos, 1988). This era saw an increase in immigration laws favouring people in the European Economic Community (currently the European Union) and citizens of former colonies with British ancestry (National Archives, 2003). Ultimately, these post-colonial era immigration laws attempted to restore Britain to a white European identity.

Alternatively, the UK placed growing restrictions on immigration from its former South Asian and African colonies with the Commonwealth Immigrants Act 1962 and the Immigration Act 1971 (Solomos, 1988). Consequently, in the late 1980s, there was an increase of entry refusals for migrants from India, Pakistan, Bangladesh, Ghana, and Nigeria. Due to this increase in refusals, nationals from these countries would require UK visas for admission into Britain. These 1987 visa restrictions on African and South Asian migrants provided some of the first instances of the classification of travellers of colour as criminal security threats (Great Britain Home Office, 1987). By 1998,

following the global trend, the Nigerian government began taking steps to securitize its documents introducing the Machine-Readable Passport (MRP) (Ogbu, 2015). This was the third iteration of the Nigerian passport and its first generation of electronic passports. The ECOWAS Harmonized Electronic Smart Passport was introduced in July 2007 to securitize its easily compromised predecessor. It deploys biometric technologies of facial and fingerprint data capture to accept the “body as a password” (Lyon, 2009, p.113). It is for this iteration of the Nigerian travel document I visited the biometric capture room in the Nigerian High Commission (see Figure 7). The Nigerian passport, in its descent from a colonial invention to a devalued token of global politics, ushers in the biometric governance of Nigerian citizens by their government and former colonial rulers.



Figure 7. The Nigerian passport in *Dreams of Disguise*.
The above image shows my avatar glancing at her ECOWAS Harmonized Passport. The texture for this 3D model is a photograph of my actual passport.

Biometric systems, as hypothesized in this current body of work, draw their history from several disciplines, but it is through the framework of capture that their complexity is reflected. Capture, as a theoretical framework, calls upon the inquiry of complex themes of (post)modernity such as identity, control and computation. In this section, three theories of capture are developed—that of state or imperial capture as posited by Deleuze and Guattari (1989), computational capture as theorized by Agre (1994) and representational capture developed by Chow (2012). As reiterated through

artistic, historic and autoethnographic cases in this chapter, these modes of theorizing capture are not mutually exclusive, as any instance of biometric capture could deploy the imperial, computational and representational models. The imperial mode of capture is pivotal to societies of control as theorized by Deleuze and Guattari (1989). For Agre (1994), capture is placed within the disciplines of computation and surveillance as a new metaphor for privacy. This metaphor is structured in linguistic form as opposed to the more visual metaphors of surveillance. The latter is manifested in such technologies as CCTV cameras under socio-political control systems comparable to the Orwellian Big Brother, while the former is manifested in decentralized RFID cards and GPS tracking systems. Agre's (1994) postulation is more representative of contemporary thought on capture and data surveillance. However, a key argument in this chapter is that capture, as a regime of signification (Deleuze and Guattari, 1989, p.120) and linguistic system, incorporates a politics of visibility or representation, whether its form is visual or not. Speaking to this is Chow's (2012) theorization of representation and visibility via Foucault (1995), wherein the writer interrogates agency and subjectivity in capture. Chow proposes that capture is not simply a one-sided power struggle. Her theorization considers the agency of the 'prey.' Combined, these conceptualizations of capture, produce a segue to discuss the power dynamics and ideology represented within the biometric capture room.

For Deleuze and Guattari (1989) appropriation is a primary enactment of capture, as the imperial state imposes its regime of signs on to indigenous cultures, overcoding entities under its dominion. Through the systematic appropriation of indigenous resources, the imperial state over codes indigenous land to rent, activity is overcoded to labour and profit, while exchanges are overcoded to state currency and taxation. If the "apparatus of capture" is "the semiological operation par excellence," it

is due to the monopolistic overcoding of signs by the imperial state (Deleuze and Guattari, 1989, p.445). A catalogue of classifications, and what Deleuze and Guattari call bonds, ensure that there is a name—a code or tag—for everything that meets the gaze of imperial state. This process is reminiscent of the colonial systems of naming, standardizing, simplifying and codifying indigenous practices, as Scott (1998) outlines in his book *Seeing Like a State*. Capture is centered in a signifying regime that remains ever-expanding its circle of symbols and signs, reducing and homogenizing all that it contacts within its interpretative dictatorship. I use this word dictatorship to emphasize the state's dominion over semiotic systems and how that translates to the lives of those it governs. To be overcoded is to be dictated as some state-sanctioned sign. The imperial state overcodes the identities of its subjects with its sanctioned signs such as identity cards, birth certificates, driver's licenses and passports. All these significations and codifications of identity require a form of capture. As Deleuze and Guattari posit, it is the overcoding of the imperial state that defines structural violence as law and declares the activity of capturing that which one does not have the right to capture as a crime. They explicate, "there is lawful violence wherever violence contributes to the creation of that which it is used against, or as Marx says, wherever capture contributes to the creation of that which it captures" (Deleuze and Guattari, 1989, p.448).

Therefore, crime is only crime after the fact of state capturing—after it is symbolically presented as such—and so is justice. For Deleuze and Guattari capture is a usurpation of the nomadic war machine—that which countersignifies from the exterior of the state; it is a system of "machinic enslavement" (p.460). "Magical capture," Deleuze and Guattari (1989) name this system of bondage, as it presupposes its existence and "appears preaccomplished" (p.460). As in many systems of subjugation such as capitalism, capture requires naturalization for its continuation.

The imperial state's capture as an appropriation of value and a system of bondage bears some similarities with Agre's (1994) conceptualization of capture. The scholar defines capture as the computational method of acquiring data input and the ability of a given representational system to accurately express the features of its subject (Agre, 1994, p.106). Agre's conceptualization of data capture as a model of privacy places it in comparison to the surveillance model⁴, which he posits is a more state-identified practice than the corporatized context of data capture. The latter, he states, is a philosophical and mathematical order. Agre explains that there are computational requirements needed to capture human activity. These requirements include parsing of said activity into grammars of action, which in turn call for analysis of an activity, the articulation of the given activity into an itemization of its phases, the imposition of the articulated grammar onto the agents, the provision of the social and technical means through which this capture can be enacted, and the continuous elaboration of the activity for the sake of efficiency and development. The analysis Agre provides for this system is very much situated within organizational practices and computer systems, though he claims that computational capture is an act of colonization (Agre, 1995). For Agre (1995, p.181), colonization is metaphorical in that computers require a "reorganization of communities' systems of meaning so that existing concepts are given technical definitions and thus subordinated to a technological order of knowledge and power." However, Agre's formulation of colonization as a metaphor for the supremacy

⁴ While Agre's comparison of visual surveillance to computational capture is valid, surveillance, as in the first chapter, is defined in this larger body of work as "the focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction" (Lyon, 2007, p.14). This definition encompasses all forms of surveillance—biometric surveillance, DNA testing, GPS tracking, wiretapping, dataveillance, and so on—which in turn includes computational capture.

of computational systems does not adequately interrogate the modes through which the imperial state upends these computational systems of data capture for the project of colonial subjugation of communities.

Colonization, within *Animating Opacity*, adopts the Martinican theorist Césaire's (2000) formulation. It is "a form of civilization which, at a certain point in its history, finds itself obliged, for internal reasons, to extend to a world scale the competition of its antagonistic economies" (Césaire, 2000, p.33). It is a system of "domination and submission which turn[s] the coloniz[er] into a class-room monitor, an army sergeant, a prison guard, a slave driver, and the indigenous man into an instrument of production" (Césaire, 2000, p.42). Conclusively, Césaire (2000, p.42) defines colonization as a tangible system of "thing-ification" or objectification, the results of which bear violent cultural, economic, political, and psychological consequences for the colonized cultures. For Césaire, the actors of colonization are capitalist figureheads such as the merchant, the ship owners, and miners. Within the age of ubiquitous computing, the figureheads of colonization are software companies and conglomerates of (bio)technology. Colonial thing-ification within this biotechnological context draws up implications of corporeal fetishization (Haraway, 1997), as indigenous and racialized others become instruments in the production of national security and technological advancement. McQuillan's (2016) conceptualization of "algorithmic colonialism," best explains the digital enactment of colonization. Algorithmic colonization, as McQuillan (2016, p.102) defines it, is "the settlement and control of areas of data life by a corporate and government entities." Therefore, if the definition of 'data' encompasses its digital and analog forms, then a document such as the Nigerian passport, through its legacy format—the British West African passport—illustrates that the data life of Nigerian travellers is always already an act of algorithmic colonization. Furthermore, in

the imposition of visa restrictions, compulsory biometric registration and overall depreciation of certain passports, the UK and most other Western countries have the power over the data life of several citizens of non-Western countries. African, South Asian and Middle-Eastern travellers are obligated to provide a significant amount of personal information to be vetted for visas. This power dynamic is woefully imbalanced as most nationals from Western countries enjoy visa-free travel globally⁵, resulting in less scrutinization of their movements. Stressing this argument of data capture as a tangible enactment of imperialism and colonization is the ordering of life through the imposition of grammars of action into everyday life of the colonized. Take, for instance, the case of the European Dactyloscopy (EURODAC) database and the ordering of the lives of asylum claimants. As explained in the previous chapter, this database houses all the fingerprints of asylum claimants and punishes those who move to or claim asylum in a different country from the one in which they first arrived (Sanyal, 2017). Certainly, in this case, the restriction and ordering of life transcends the metaphorical and even the computational. In terms of biometric capture, the imposition of grammars of action begs the questions: whose actions need to be analyzed and articulated? On whose bodies does imposition of state-sanctioned grammars of action occur? What are the politics of elaborating action? Do they respect the rights of individuals? Which nations do these grammars of action favour? A number of these questions have also been brought up in

⁵ For longer periods of stay over 90 days (outside of the scope of visa waiver programs), some nationals from Western countries need to apply for biometric visas (U.S. Customs and Border Protection, 2018). This, however, proves the reduced levels of scrutiny citizens from European and North American countries face in the migration process. Indeed, this process of immigration from other Western countries is still racialized, as in the UK, visa waiver programs for travel to the US exempt British nationals from certain North African and Asian countries (Government Digital Services, 2018a).

the introduction of the biometric Permanent Residence Card created by the Canadian government after the attacks on the 11th of September 2001 (Browne, 2005).

Perhaps where Agre's (1994) theorization of computational capture most resembles Deleuze and Guattari's (1989) imperial state capture is when capture takes the form of a structural metaphor. This is when the captured activity is assembled from sets of catalogued or coded events. Therefore, in cataloguing each activity into decipherable grammars of action, the said activity is in the process of definition—thus, the capturing of the activity through cataloguing, sorting or itemization defines the activity. Imperial state and computational capture appear “magical” in nature (Deleuze and Guattari, 1989, p.460) through obscuring the many citations and recitations that must occur in the process. For example, Galloway (2006) states that games include several grammars of actions from the human agent, the gamer controller and the game code. ‘Powering up’ in Mario Kart, for instance includes grammars of action for the user agent: press X to jump and collect coin; for the game controller: X is pressed; and for the game code written into the console: if X is pressed, then move Mario 20 pixels up y-axis and if the position of Mario is equal to the position of coin, then perform power-up. These interchanges across human and machine agents constitute the structural and linguistic process of computational capture that define and declare a power-up in Mario Kart. In obfuscating the structural processes—the actions that must be performed—for Mario to be powered up, imperial state and computational capture appear “magical” in nature (Deleuze and Guattari, 1989, p.460). It is when capture takes on a structural form that it becomes a sorting practice. This consists of the ordering bodies and lives into pre-assigned, structured, and catalogued spaces (Lyon, 2003). It is in this form that capture becomes a process of tagging. For instance, crossing the UK border requires a mix of imperial state and computational grammars in the crossing of

the border. One of such grammars could be in the presentation of a mismatched fingerprint during a routine inspection of a biometric resident card or ePassport. Disparity in the one-to-one (1:1) verification method would result in a declaration of the biometric interviewee as an illegal alien. In this form, capture poses the threat of state violence in both its overcoding of human activity and its computational tagging of such activity as criminal or legal.

In the moment of cataloguing and rendering subjectivities, capture “activates reality” (Chow, 2012, p.166). As Chow (2012) articulates, “the machinic act or event of capture [...] sets reality in motion, [or] invents or makes reality” (p.4). Although this activation of reality, from Chow’s perspective is visual, brought on by the ubiquity of digital cameras and the disappearance of the time lag in creating images, it echoes Agre’s (1994) exploration of the real-time tracking of events that constitutes a large portion of computational capture. The less the time lag between a user’s action and the machine execution, the more these virtual or machinic events move from mere representation to reality. For instance, it is the reduced time it takes for an iPad to register and represent the movement of an Apple Pencil across its screen that defines the action of writing or drawing on the tablet. This process is both drawing and the simulation of drawing—simultaneously real and virtual (Lundborg, 2016). With the collapse of time, images from these cameras become enunciations asserting, “this event *really* occurred.” While real-time rendering is one way in which the machinic act of photography activates reality, this power of enunciation through capture is not wholly dependent on time. It is the act of machinic documentation itself that activates reality. Although Chow’s positioning of capture as visual representation contradicts Agre’s theorization of capture in contrast to surveillance, her analysis of the politics of representation in capture develops on the undertheorized sociopolitical implications

introduced in Agre's essay. Incorporating a Foucauldian approach to visibility, Chow articulates that visibility and vision transcend sight and being seen. For Chow (2012), visibility is "caught up in the shifting relations of political sovereignty and in the discontinuities among different representational regimes" (p.153). If "visibility is a trap" (Foucault, 1995, p.200) within Chow's analysis, then that trap is very much a "seizure," or "binding" (Deleuze and Guattari, 1989, p.352) set within the Deleuzian apparatus of capture. This trap enacts violence to retain its monopolization of representational regimes.

Postcolonial visibility contextualized within the decolonial politics of the 1960s was as much a practice of recognition—of remonstrating media representation—as it was a practice of political representation (Chow, 2012). Postcolonial representational politics were a process of shifting authorship of codes and signs to those that recognized indigenous or colonized peoples, as seen in the upcoming example of Buolamwini's (2016) *The Coded Gaze*. In addressing authorship and agency, biometric capture, as in photographic capture, is a representational process— "a type of discourse, one that derives from the imposition of power on bodies and the attachment of bodies to power" (Chow, 2012, p.6). Both practices of photographic and biometric capture aim to represent truth, whether it is the truth of reality through visual documentation or the truth of identity through documentation of the body. As the photographer crops the image, so does the biometric agent dissect the body. As the photographer is trained to capture images using light and lenses, so is the biometric agent trained to capture data using software and scanners. Biometric capture thus demands the analysis of agency, authorship, and subjectivity established in media studies. It demands, as Chow requests, that the embodied state of the 'prey' must be accounted for. As in the process of

hunting, capture is not the definitive end—the prey still has the power to manipulate the trap and escape.



Figure 8. The biometric capture room in *Dreams of Disguise*. This scene shows my avatar in the process of data capture.

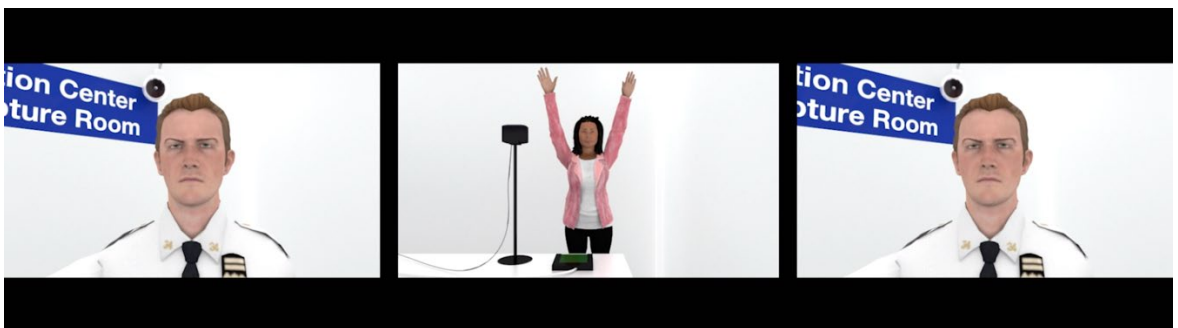


Figure 9. The scene from *Dreams of Disguise* where the lead character raises her hands.

My late spring 2017 experience applying for a Canadian visa draws this theorization of capture and agency back into another autoethnographic moment in the biometric capture room. I document this event in my artistic practice (as portrayed in Figures 8 and 9). I had submitted over forty pages of documents including my past Canadian resident permits, birth certificate, scans of every visa in my passport, bank documents, an invitation letter from my mentor and friend who was also a Canadian citizen, the IMM5645E with my family information, the IMM5257E that was my application form, my British Resident Permit card, along with other supporting documents. I had given all the documents Citizen and Immigration Canada (CIC) would

need to confirm that I am a “responsible migrant”⁶ (Browne, 2005, p.427) and it was time to submit the most reliable document—my body. While in the biometric room at VFS London (a private visa and passport application agency), the agent asks me to put my hands up so he can see them. He then asks that I place my four fingers on the fingerprint scanner. I do so, after which I anxiously place my hand in my pocket. Quickly the agent retorts “Don’t put your hand in your pocket! ...Don’t put your hand in your pocket.” He beckons for me to put my hands back up so he can continue with the inspection and biometric enrolment of my fingerprints. I place them back up. The agent concludes the interview by taking my photograph and offering me a receipt (see Appendix C.1 for illustrations of my Canadian border interview and the Nigerian High Commission). To read this experience as grammars of action required for a visa application or capture by the Canadian nation-state, the biometric enrolment onto the Citizenship and Immigration Canada database is one of the compulsory events imposed on applicants from selected countries —most of which are African, South Asian and Middle Eastern (see Canada Visa, 2018). Within this activity, it is the agent’s responsibility that no process is breached. In this case, the action of enrolment would require the grammar: present untampered fingerprint for biometric registration. However, there is another grammar of action happening here on a social level, what Hall (1995, p.21) calls a “grammar of race” to be expanded on the following section. It is the grammar of race that Browne (2010) states is in effect when a Canadian woman, Berna Cruz, on returning from a trip to India, was accused by US immigration officials

⁶ Browne (2005) describes a responsible immigrant as "one who can account for her employment, residences, comings and goings, and who can provide a guarantor to verify her claims. Importantly, this [...] guarantor [must be] a Canadian citizen who can vouch for the applicant" (p.427). As I applied for the Canadian Visa in London, my immigration status within the UK would also define my responsibility as an immigrant.

of having forged her Canadian passport in Sri Lanka. This grammar commonly culminates in the form of state violence. For Berna, she was deported. For me, the violence was much less severe but still symbolic. I ended up with my hands up in the biometric capture room. In the private technological space hailed for its neutrality towards race (Magnet, 2011), I held a pose that signifies the profiling gaze of a police officer, a “gesture of innocence” (Kedhar, 2014) and “black self-defense” (Kidane and Abbas, 2014). However, the interviewer was not an armed police officer—he did not need a gun. He was simply the employee of a private commercial agent acting under the power of the Canadian state, but his capturing of my biometric data—his authorship of my body—could be the difference between a safe flight into Canada as a legal migrant or detention at the border. This is the presupposedness and preaccomplishment of magical capture that even at now as I reflexively describe this experience, with all my critical knowledge of this system and all my experiences of biometric capture for visas, I still rationalize the treatment I received as standard practice. The history of violent colonial documentation practices has been naturalized and taken for granted in a manner that makes the contemporary abuses of identity certification a matter of fact. The violence of documentation is presupposed and preaccomplished in a manner that makes the process of capture seem magical, as though the computational tagging of humans via biometric documents materialized out of thin air. In this system, falling back to Césaire’s (2000) criticism of colonization and western civilization, the vision of a world without colonial identification practices would be taken as a blasphemous de-evolution of civilization instead of a radical decolonial thought.

The Floating Signifier: On Capture and Tagging the Other

“It is a serious problem. There are about a thousand applications being made in a week. How many of those bogus? I don't know. But it is thought that a great majority of

them are bogus,” says one of the many voices layered into the discordant soundscape in *Tagging the Other* (Piper, 1992, no pagination). This four-panel video installation has a soundscape that loops personal accounts, news broadcasts, and political speeches. These play over the deafening sounds of police sirens and beatboxing, all of which create an atmosphere that evokes the social anxieties surrounding migrants of colour in Europe. These anxieties include, on one hand, the state imperative to capture the “truth” (Magnet, 2011; Pugliese, 2010) of identity, and on the other, the desire of communities under surveillance to live in peace. As though they are in a national conversation, the voice immediately after the previous statement of what seems to be an immigration official is that of black migrants who give their experiences of racial discrimination and anti-migrant sentiment in the UK. A person explains that due to their race, it would be difficult for the border agent to tell if he was a British citizen from the Caribbean or a West African migrant worker. Their identity card would be the only proof that they have a right to enter the UK as a citizen. Therefore, the responsibility is on them whether the border officer deports them or lets into the UK. Another migrant decries that the mixed messages of assimilation and negation of migrant identities has left them confused about their relationship to the UK. Rotating in a loop in the four video panels that accompany this discordant national conversation is the animated bust of the artist placed in a collage of text and images. Simulating a digital scan of his body in the collaged environments he has created, the artist further divides these four panels. This division is marked by naming the box that actively tracks the movement of his face. In the first panel, instead of boxes tracking his face, a concentric circle resembling a sniper’s target traces his movement. This panel bears the title “visible differences.” In the second pane, the circle changes to an open bracket accompanied by a blue bar that covers his eyes. The title of the x-axis is “culture” and “ethnicity” on the y-axis. Piper

has his head in the outline of a 3-dimensional box in the third panel. On the two top axes are “subject” and “object.” “Reject” rests under the box. The blue bar moves from his eyes to his mouth. In the final panel, the bracket returns, enveloping the artist’s head. However, within this bracket is a rotating locus outside of which is the text “otherness” and outside of bracket is the word “boundaries.”

Created in the early 1990s, the interface of digital environments in this work bears many similarities to technologies of facial capture (Piper, 1992). Boxes and circles enclose and track the face moving through space. This chapter will return to an analysis of facial capture technologies; however, the process of social tagging enacted by digital technologies as illustrated in *Tagging the Other* needs to be explained first. Placing his scrutinized black body amid the national discourse and personal accounts that attempt to humanize the experiences of black migrants in the UK, Piper illustrates the process of social tagging through the news and politics that marks certain population for surveillance and the embodied experiences of these people. In the background text behind the rotating bust in the Subject/Object/Reject panel, the text reads “FIXING THE BOUNDARIES OF A NEW EUROPE... TAGGING THE OTHER... PERFECTING NEW TECHNOLOGIES OF SURVEILLANCE... POLICING, INTERNATIONAL COLONIES OF DIFFERENCE... REINFORCING THE FORTRESS.” Piper’s work highlights that in this moment of unification, where the UK joins the EU Market, it is the process of othering that reinforces national boundaries. Akin to the 1960s increases in migration control for African and South Asian countries, the British tensions about national identity is quelled by the increased capturing of racialized others. Piper and I discussed ironic comparison of the current anxieties of Brexiters about the ‘swarming’ of the British border by Middle Eastern and African refugees with the racial anxieties surrounding the initiation of the single European

market (Fubara-Manuel, 2017b). The rejection people of colour from the UK, as in the visa restrictions of the late 1980s, coincides with the national conversation about the European Union. Wherever British identity seems most tenuous, race is often brought into the center of the debate. Mercer quotes Stuart Hall in the anthology of Piper's work "Blacks become the bearer, the *signifiers* of crisis of British society [... Race] is the framework through which the crisis is experienced. It is the means by which the crisis is to be resolved—"send them away"" (cited in Mercer, 1997, p.41).

Within the current era of 'algorithmic governance' (McQuillan, 2016), the black body is a signifier of the crisis in British society. Governmental organizations battle to control this body through modes of technological innovation, thus "perfecting new modes of technological surveillance" (Piper, 1992). The Metropolitan Police Service (MPS) conducted a test of real-time facial recognition technology at the Notting Hill Carnival 2016. They experimented with facial recognition alongside "super-recognizers"—officers with the ability to spot wanted criminals— using the images of people banned from attending the carnival and those with arrest warrants out for them (Randhawa and Crerar, 2016). In 2017, the Met scaled up the project with the utilization of its wider database containing twenty-million facial images from people who had been in police custody (Wiles, 2017). As Martin (2017) reports, this experimentation led up to "35 false matches and one 'erroneous arrest.'" This deployment of 'super-recognisers' and facial recognition technology, when placed within the history of the Notting Hill Carnival gives a better understanding of the history of overcoding black communities in the UK. As Gilroy writes, the 1976 Notting Hill Carnival riot was "a watershed in the history of conflict between blacks and the police and in the growth of the authoritarian forms of state planning and intervention" (1987, p.93), as the "syntax of British racism" (p.108) discursively tagged black youths as criminals. As discussed

earlier, it was within the syntax of racism via colonial conquest and Western imperialism that the British Government tagged African and Middle Eastern, South Asian migrants as high-security threats at the UK border. The relationship between the independence of former British colonies in the 1960s, post-war immigration from these new nations, and the rise in British racism in the 1970s cannot be overstated. The same racist anxieties that led to the hypersurveillance of black migrants at the border were in play in the disproportionate surveillance of black residents within the UK border. Therefore, the capture of black populations within the UK cannot and should not be separated from colonial conquest.

Best characterizing this period of the discursive and textual enunciation of blackness is the British nationalist Enoch Powell's, labelling of mugging. As Hall, et al. (1978) note, mugging only came into the British vocabulary within the early 1970s, the era of anti-immigrant and anti-Black panic in response to post-colonial politics, the prevalence of 1950s Windrush era migration and the changing cultural makeup of Britain. Piper in the fourth panel of *Tagging the Other* titles this pattern "naming the problem" (Piper, 1992). The practice of naming the problem and overcoding human activity in the grammars of race is linked to the 1987 classification of African and South Asian immigrants as criminal security risks. Racially naming several aspects of criminality ultimately led to state violence, wherein 1500 police officers were deployed into the 1976 carnival. MPS reports, according to Gilroy (1987), stated that the cause of the 1976 riot was an act of black solidarity in which the crowd came to the defence of some black 'criminals' being arrested. Almost 40 years later, the tradition of hypersurveillance and violent policing continues as the police continuously escalate their efforts to control crime within the Notting Hill Carnival. Perhaps most telling of this tradition is the row of arrests—656 in total—in the weeks leading up to the 2017

Notting Hill Carnival (Grierson and Gayle, 2017). Facial recognition as a form of the MPS' imperial biometric capture, applies this historical syntax of British racism in its grammar of action, as its deployment in Notting Hill signifies the continued efforts in the criminalization of African and Caribbean people. It is implicated in a system of cataloguing and sorting black bodies in ways that define race and ascribes meaning to it, just as biometric identification as argued in the previous chapter, inscribes race on the skin (Hall, 1996, p.16).

In the panel titled “visible differences,” Piper (1992) places the text “the binary code of ethnicity.” By binary, the artist is referring to the comparative or dualistic sorting of cultural difference. Synchronously, binary code refers to the basic language of all digital systems (Plant, 1997). In a sense, ethnicity and difference are placed here as a basic digital language. As the binary digits of ones and zeros represent the social dichotomies of black and white, male and female, legal and illegal, the structural language of computation comes to resemble that of racial ordering. Elsewhere, Piper (2015) reveals in a work-in-progress, a movement beyond the limitation of the structuralism in the digital dichotomization of race and its implications for computational systems. ‘Cyberebonics,’ Piper terms certain human-readable scripting languages that aide communication between human agents and the machine other. An example he offers is Adobe Director’s (formerly Macromedia Director) Lingo, the scripting language created by the Hackney-born, Brooklyn-raised inventor of Jamaican descent, John Henry Thompson. This verbose scripting language, similar to such linguistic forms of the black diaspora as Antillean Creole, African American Ebonics, Caribbean Patios or West African Pidgin, eschews the classification of variables into specific data types (i.e. integers, strings, Booleans and so on). Thus, any given variable could take on any data type as a string, integer, symbol or boolean. As in the “series of

forgettings” through which Creole language “renews itself in every instance” (Glissant, 1997a, p.69), so can each variable in Lingo be converted to any given property or object. This, characteristic of the scripting language, according to Epstein (1998), makes “Lingo’s data typing [...] loose to the point of being obscene” (p.153). The obscenity of loose categories offers the opportunity to break beyond the dichotomous structuralism of binary code and strict digital tagging of bodies with race, gender, migration status, and so on.

Cyberebonics or computational creole carries more significance when brought into the context of biometrics. For Browne (2015), digital biometric technologies, with their descent from branding, execute the binary code of ethnicity through “digital epidermalization”—a computational inscription of race onto certain bodies. Browne (2010) defines this digital epidermalization as:

the exercise of power cast by the disembodied gaze of certain surveillance technologies (for example, identity card and e-passport verification machines) that can be employed to do the work of alienating the subject by producing a ‘truth’ about the body and one’s identity (or identities) despite the subject’s claims (p.135).

The surveillance scholar derives this term epidermalization, from Fanon (2008, p.84) who describes the embodied experience of racialization with an event that transpired when he was spotted by a child who screamed at him, “Look, a Negro!” For Fanon, this moment marked a shift in his identity from the “corporeal schema” to the “racial epidermal schema” (p.84). Epidermalization or the experience of being reduced to the racial epidermal schema is a system of tagging the other. As Fanon states, “the Negro is [a] comparison” (2008, p.163). Thus, epidermalization as an embodied experience of racialization requires that the subject of racialization simultaneously places their racialized body outside of itself. Digital epidermalization is, therefore, a computational procedure that signals “Look, a Negro!” In the interpellative moment of digital

signification, race is created and assigned to certain bodies. A moment such as the biometric failure to enroll (FTE) dark-skinned people onto facial recognition systems as exemplified in *The Coded Gaze*, carries in it the inscription of the racial epidermal schema onto the body presented for registration. Moreover, if surveillance, as Lyon (2003) states is a system of social sorting that “classif[ies] people and populations according to varying criteria, to determine who should be targeted for special treatment, suspicion, eligibility, inclusion, access, and so on” (p.21), then surveillance subsists off digital epidermalization. It could be argued that digital epidermalization is ‘magical capture,’ as in contemporary computational systems, Galloway (2012) writes, “a body is always cybertyped [...] *tagged*⁷ with a certain set of affective identity markers” (p.121) such as race, gender, [dis]ability and so forth. Therefore, cyberebonics offers a move towards a loose language that allows spaces for identities to be as porous and complex as they choose. Cyberebonics, as a computational semiotic system that continuously renews itself is an apt linguistic form for the representation of the constant evolution of—to paraphrase Stuart Hall — “race [as] a language” or a “floating signifier” (Hall and Jhally, 1997) that is always fluctuating with a lacuna of undiscovered and untold meaning. Cyberebonics signals a decolonial approach to coding, countersignif[ying] from the exterior of the state [and its] system of “machinic enslavement” (Deleuze and Guattari, 1989, p.460).

A Series of Algorithmic Forgettings: Errantries into Computational Creole

Throughout this chapter, I have theorized capture as state-sanctioned grasping and overcoding of colonial subjects. I have addressed capture as a computational system

⁷ Emphasis mine

that inputs data sorted through grammars of action and a representational system that tags meaning to signs. The discussion of the utterance of code—in its racial and computational form—is one that brings up key debates in software studies and, therefore, I have highlighted the political production of these utterances. Surveillance studies scholars such as Browne (2015) and Magnet (2011), have addressed the flaws in biometric technologies, the normalization of whiteness and heterosexuality implicit in both the creation and implementation of biometric technologies (Blas, 2014) and how these flaws enunciate race. Introduced in the previous chapter where I expanded on Magnet’s (2011) conceptualization of biometric failure, this performative function—the magical capture—of biometric technologies calls for an analysis within the context of software studies. In concluding this chapter, I shall connect errantry as conceptualized by Glissant (1997a) with failure as formulated by queer theorist, Halberstam (2011), placing them alongside the theory of digital media theorist Wendy Chun, who calls for a de-fetishization of code as an enunciation or command. “If code is performative,” says Chun (2008) “its effectiveness relies on human and machinic rituals” (p.311). Thus, computational creole as, forgetting colonial algorithms, a celebration of machinic failure, and denunciation of interpellative code, is centered as a means through which code can be de-fetishized. I expand on these subjects theorizing from the critical practice of Joy Buolamwini.

Even when they fail, they succeed, Magnet (2011, p.3) states on biometric technologies. This is echoed in Martin’s (2017) report on the MPS’ reaction to the false matches and erroneous arrest of the 2017 facial recognition pilot. While activist groups and people of colour declared the technology faulty at best—and racist at worst—MPS stated that it was a success (Martin, 2017). The impossibility of biometric failure, according to Magnet, thus lies in its discursive strength in signifying nationalist

compulsions of securitization and expressing racist anxieties about crime and immigration. As the poet of code and MIT graduate researcher, Joy Buolamwini's, work on algorithmic justice shows, the errantry of biometric failure—failing often and in better ways (Halberstam, 2011, p.24)—leads to subversive possibilities. This is highlighted in the researcher's process of creating *The Aspire Mirror* project—a device that uses facial recognition and image overlays to enable “you to look at yourself and see a reflection on your face based on what inspires you or what you hope to empathize with” (Buolamwini, 2015, no pagination). Buolamwini discovered that the algorithm written into the open-source software would not recognize her face. She resorted to wearing a generic white mask to test run *The Aspire Mirror*, as she documents in *The Coded Gaze* (Buolamwini, 2016), where she demands algorithmic justice via the representation of diversity in technological production.

The subversiveness in Buolamwini's work is not in her demand for representation. It instead surfaces in *The Coded Gaze*, which could be read as a performance of the title of Fanon's *Black Skin, White Masks*, adapted for the digital age. Buolamwini's performance highlights the paradox of visibility embodied by black communities in the West. On one hand, black people are hypervisible in the implementation of biometric surveillance as illustrated by the Notting Hill pilot. On the other hand, black people are removed from the process of authorship. Thus, once again thing-ified as objects of surveillance. As the black feminist scholar, Collins (1998) writes, “surveillance seems designed to produce a particular effect — Black women remain visible yet silenced; their bodies become written by other texts, yet they remain powerless to speak for themselves” (p.38). As seen in the example of the Notting Hill Carnival, the presence of surveillance in black neighbourhoods is said to be for public safety. However, surveillance in black neighbourhoods is enacted to eradicate

a population, written within British racial syntax as criminals. On the one hand, within the pretext of representational politics in biometric industries, Buolamwini's authorship of her utopian technology of capture illustrates a momentous occasion of a black woman writing facial recognition algorithms. On the other hand, in support of opacity and the improvement of black lives, the biometric failure of facial recognition establishes a new form of digital language. As Africans both enslaved and in colonial settlements created a form of language from the mixture of mispronounced words of the colonial masters and their indigenous languages, so does biometric failure become a language in this era of ubiquitous surveillance for dark sousveillance. Opacity revels in biometric failure, as these errors offer an opportunity to challenge the colonial dissecting gaze and evade capture. This revelling in failure, should not be mistaken for an antagonistic sentiment against the gifted engineer Buolamwini. It is to take Halberstam's (2011) conceptualization of failure as "a way of refusing to acquiesce to dominant logics of power and discipline" (p.88).

Failure takes on a powerful form in Halberstam's (2011) formation. It is linked to forgetting and losing one's ways. For Halberstam, Dory from *Finding Nemo* (2003) exemplifies forgetfulness as queer failure. Dory, a blue reef fish with short term memory loss, continuously forgets her family and Nemo, the little lost fish whom she is accompanying. The blue reef fish thus continuously re-creates her relationship with Nemo. This forgetting of family and re-creation of relation, as Halberstam notes, is a queer act of re-building kinship networks outside of heteronormative nuclear units. Within the context of black feminist thought, Halberstam refers to two writers, Saadiya Hartman and Toni Morrison, both of whom write of forgetting as a mode of black survival from plantation slavery. Memory and its storage within archives create an inescapable bond to the past and its trauma. Creole, therefore as a series of forgettings,

highlights the radical anti-archival logic of black linguistic forms as a mode of survival. Creole, as a language spoken by Antillean slaves with the aim of communicating with each other outside of the grasp of their masters, demands a re-invention at every juncture. As a multilingual system it demands, a looseness of syntax and meaning; it demands slippages, detours, and errantries. Computational creole, thus, exemplifies the linguistic forms of errantry and failure. As language through which racialized others communicate with each other and machines, computational creole depends on a series of forgettings, failure and limitation of colonial capture. Computational creole is a black digital linguistic system with the purpose of black authorship of algorithms. It mixes the syntactic errors of biometric failure with dark sousveillance and opacity. It is a form of coding that ascribes digital agency and subjecthood to black and migrant populations, who will, in turn, negotiate visibility on their own terms. Computational creole is a linguistic form of countersignification that refuses colonial tags and overcoding of blackness as a product of criminality and subject to hypersurveillance. Indeed, it is only within the refusal of the system of algorithmic colonialism that a dark-skinned black woman can create any utopian vision for herself. Computational creole, therefore, unlocks the possibilities of critically engineering tools (Oliver, Savičić and Vasiliev, 2011) with which black migrants can “dismantle the master’s house” (Lorde, 2007, p.112).

As Chun (2008) notes, “digital media’s biggest impact on our lives is not through its interface, but through its algorithmic procedures” (p.323). Chun asserts that we must look beyond the interfaces and executions, to the failures of the source code. We must search for the so(u)rcery or source code that “obfuscates the *vicissitudes of*

*execution*⁸ and makes our machines demonic [or magical]” (p.300). The obfuscation of the vicissitudes of biometric algorithms, when capture becomes a magical totalizing command must be challenged with computational creole. Biometric technologies, as a form of state-capture, are deeply situated within the politics of the colonial settler state (A. Smith, 2015). To argue that these technologies are simply neutral machines for the promotion of security and optimization of migration processes is to ignore or hide the inner working of colonization written into the algorithms. It is to hide the thing-ification of black coders and technologists as instruments for their own subjugation. It is to hide those moments where black subjects wear white masks to be recognized by a system that subjects them to violence. It is to hide those situations in private biometric agencies, where black migrants are harassed during data capture. To argue that biometric technologies are apolitical race-neutral tools is to ignore their discursive practices and to undermine the radical possibilities of flight from capture. Chun (2008) requests that we defetishize code as enunciative and pay attention to the details of its citations. What legacy code is quoted when we glance through the grammars of action within the biometric capture room filled with black and brown bodies—the racialized spaces of black populations whose activities are violently articulated into grammars of action—the coders attempting to change the grammars of race but having to compromise their identity for recognition? The more we deconstruct the computational language, imperial capture and its regime of signs, the more we uncover a system of algorithmic colonialism, the reordering black data lives, and the necessity of computational creole.

⁸ Emphasis mine

Biometric Sensibility: On Light, Touch and Sound at The Border

It had been a long trip back into the UK from Winnipeg, Canada. With an uncomfortable 13-hour flight connecting through Vancouver into Gatwick Airport, I was fatigued and dehydrated. All the passengers stepped out of the airplane into a zone with abundant signage in navy blue and white saying “UK Border.”⁹ This zone was demarcated into modular labyrinths made of stanchions and retractable tapes creating sub-zones based on nationality, human or machinic interactions. Persons in the Registered Traveller Service¹⁰, UK and EU citizens with biometric passports could move to the zones with e-Passport machines, equipped with passport readers and facial recognition cameras. Adjacent to these automated border agents (the e-Passport machines) were human border agents dressed in matching uniforms of blue shirts and ties accompanied by lanyards holding their ID cards. The regions managed by these human agents were divided again into UK and EU passport areas and queues designated “Other Passports.” Moving through the UK Border to the Other Passports margins, I feel a sharp reflection of light in my eyes. I look at the direction of the flash, up into the

⁹ I use the term “UK Border” with the capital “B” as I argue in previous chapters that the border is a network of virtual and physical spaces mediated through biometrics and inscribed onto the bodies of migrants. Therefore, the UK Border as a place is primarily symbolic, in that it could be situated in any given location on the condition that it is the first state-mediated contact zone on arrival into the nation. The Border is therefore first and foremost agency—a state institution, the UK Border Agency—and should not be conflated with the imagined but consequential geographic border that marks out national territories. Consequently, “Other Passports” is a department within this agency with its own constructed and mutable politics within the UK Border.

¹⁰ Registered Traveller Service is program that guarantees members faster entrance through the UK Border. To be eligible one must be older than 18, have a UK visa or some other official document, have visited the UK for the minimum of four times in 2 years, and must have a passport from one of the partaking countries (Government Digital Service, 2018b).

ceiling where I see a fleet of cameras from which oscillating lights emanate. These lit cameras are scattered across the room, of which a few are arranged near the e-Passport machines. I keep looking around for these unusual cameras, while I walk to the end of the Other Passports queue. After a few minutes, I am in front of the line where a black man in maroon West African colour-coordinated kaftan is being escorted by armed officers in bulletproof vests (see Figure 10). His luggage is totally covered by a layer of transparent plastic. I wonder why the guards need such excessive layers of protection to escort this man—why has he covered his luggage in plastic? Is he an asylum claimant, a dignitary or prisoner? If he is the former, what is the use of the armed guards? If he is either of the latter, why are his attendants so conspicuous as to warrant anxiety from the other travellers? I think about these events as I am being interviewed and fingerprinted by the border agent. I think of how unusual it is to experience the sensation of a surveillance camera's gaze via light, the layers of protection in this space—my border agent's latex gloves, the plastic against the man's luggage and the guards' vest—the need for certain individuals to speak to human agents as opposed to being scanned by automated machines, and the general affective atmosphere of security theatre (Amoore and Hall, 2010). These different means of border security are the motivation for this chapter—understanding the UK Border as a multisensory system mediated through biometric capture.



Figure 10. A 360-degree render of *Dreams of Disguise* showing the African man.

‘Biomediation’ (Thacker, 2004), as addressed in the previous chapter on biometric inscription, posits that the relationship between the body and technology is not one-sided, wherein the body is a readable “thing-in-itself” (Haraway, 1997, p.142) that exists outside of technology— “the biological “informs” the digital, just as the digital “corporealizes” the biological” (Thacker, 2004, p.7). Biometric technologies are, therefore, a biomediation, remediating other technologies of identification in their various socio-political contexts (Ajana, 2013, p.24). Building on biomediation as the body informing the digital, the current chapter addresses the different manners in which biometric technologies sense or read the human body as information or stimulus within the UK Border. It is not an attempt to anthropomorphize biometric technology but an interrogation of the ways in which the body is read or sensed at the Border—the ways in which computation, sensation and affectations (Clarke, Convivial Studio, Devereaux *et al.*, 2018) are mobilized at the UK Border. A discussion of sense underscores that biometrics as the “measurement of life” (Ajana, 2013, p.3), are built on stimulus detectable

by living organisms and the sensors¹¹ that mediate their forms of computational capture. Within the examination of biometric sensors at the border is the acknowledgement that most border agencies rely on fingerprint, facial, and iris recognition (Liljefors and Lee-Morrison, 2015) as their primary mode of biometric identification. Therefore, hearing (and its stimulus—change in sound) is taken as a secondary sense, supplemented with information from other biometric sensors. For instance, my speech about my identity was recorded alongside the verification of my fingerprint with the Border’s optical sensor fingerprint scanner, the Crossmatch Technologies’ Verifier 300. In the grander scheme of *Animating Opacity*, the senses of smell and taste will be exempt from analysis as they have no direct application yet. Consequentially, the current chapter focuses on vision and touch as primary sensory experiences in the UK Border. I relate these concepts to certain sequences portrayed in my video installation *Dreams of Disguise* (see Appendix A.3), which is based on my crossing through the Gatwick Border.

The first section focuses on the visual sensors of the UK Border, concentrating particularly on the use of light in the MFlow facial recognition camera. The MFlow camera is a proprietary airport passenger management system manufactured by the UK-based digital identity administration company, Human Recognitions System (2018). This section will expand on Foucault’s (1995) conceptualization of light as a surveillance technology via his analysis of Bentham’s panopticon. Discussions here will consider the disputes on Foucault’s theory amongst surveillance scholars, expanding on the first chapter’s discussion of the limitations and violent history of Bentham’s

¹¹ For example: capacitance and optical sensors used in fingerprint scanners; depth sensors used in facial recognition cameras; and pressure sensors used in handwriting identification.

conception of the panopticon. The contention against panopticism is linked to surveillance scholar's critique of vision as discussed in the previous chapter on biometric capture, wherein Agre (1994) posits that the linguistic metaphors of computational capture are more adequate than the common visual metaphors of surveillance. With consideration to these debates, this chapter transports light beyond the field of visibility, tackling Browne's (2015) theorization of "black luminosity" as the "boundary maintenance" of black bodies facilitated by light (p.67). In this sense, light is a technology that mediates geocorpographies, creating an "indissociable relation between geopolitics, bodies and biopolitical technologies of inscription, surveillance and control" (Pugliese, 2010, p.92). Concluding the first section on vision and light as a boundary maintenance technology is a delve into a brief comparative analysis of two visual works that portray this subject, *Boyz in the Hood* (1991) and *Marcy Me* (2017).

According to Amoore (2007), tactility is a subversion of vigilant sight and "the myth of the state as untouchably sovereign" (p.223). Subsequently, Amoore suggests other modes of seeing. Amoore incorporates Cooley's (2004, p.137) conception of "tactile vision [...] a material and dynamic seeing involving eyes as well as hand" as a mode of "screenic seeing" (p.143). The "tactility of vision" (Amoore, 2007, p.223) challenges the untouchability of the sovereign state. It highlights the economies of touch at the border. In relation to the previous section, this segment will place tactility within the affective economy of the UK's border policing. While light maintains boundaries, touch disturbs them. Incorporating Ahmed's (2000) conceptualization of the skin as border or contact zone, which the scholar likens to the national borders, this chapter tackles the production of the migrant as a stranger or invading body that is "out of place" (p.50) or is too close for comfort. Considering the metaphor of touch or tactile intimacy as affect—for instance, to feel touched by someone's kindness—this segment

addresses the spatial politics of affect, concentrating on the deployment of fear in confining migrants' mobility. Important to the analogy of tactility and affect is the production of Britain's border as "soft touch" (Ahmed, 2004, p.1), connoting the perceived vulnerability and weakness of the national frontier. I claim in this section that the "hostile environment" (May, cited in Kirkup and Winnett, 2012) policies as deployed by Theresa May, as Home Secretary, and her successor Amber Rudd, were created to address this affectively produced softness of the border. The Prime Minister's call for a "strong and stable" (Poole, 2017) leadership, therefore plays into this network of affectation.

The closing section of this chapter, reports on the consequences of this "hostile environment" era of UK immigration policy, stating that this is an affective regime of migration that has and continues to wound or injure black migrants (Ahmed, 2004). The 2018 scandal of deportations of Windrush migrants serves as an adequate case study of this violence (Rawlinson, 2018). I argue for the restructuring of the politics of listening (Lacey, 2014) at the Border. This conclusion will concentrate on the politics of listening via Chun (1999), Ahmed (2004) and Lacey (2014), critiquing listening at the border with feminist and postcolonial theories of speech (hooks, 1990; Spivak, 2009). Speech at the border, while it may serve the function of aiding agency and healing, is primarily iterative. As discussed in the first chapter, speech within the context of immigration is centered on re-citation and repetition (Butler, 1993) of identity documents. As emphasized in my previous reflexive narration of crossing Gatwick, speech at the Border is a means of verifying the knowledge base of the Home Office. Therefore, listening at the Border is a mode of epistemic violence (Spivak, 2009). Following hook's (1990) proposition to speak one's pain, I return to the "right to opacity"

(Glissant, 1997a, p.194) placing myself within the affective economy of the computerized border.

Celestial Orbs: Vision, Light and Boundary Maintenance

The panopticon, as posited by Foucault (1995), is the surveillance technology *par excellence*. Based on Bentham's architectural design of an annular prison building consisting of two circular enclosures—a central watchtower and a ring of cells around it—Foucault (1995) expounds on the disciplinary effect of panoptic power. The confinement is designed to keep its subjects in “a state of conscious and permanent visibility” (p.201). This permanent visibility—the sensation of being constantly watched—acts as a mechanism of self-control within the prisoner. This sensation is exacerbated by the occlusion of the guard tower, which Foucault notes is the “guarantee of order” (p.200). Foucault breaks this down to the dyad dynamic of seeing and being seen, highlighting that the guards' tower is placed high enough to have its silhouette always looming over each individual cell. Placed in cellular isolation, the only portals connecting the chambers to another space are two windows—one in the front, giving the tower, which also has windows all around its circumference, visual access. The one behind is exposed to powerful backlighting. Therefore, light becomes a surveillance technology in this system. The panopticon, as analyzed by Foucault is centered on his theorization of disciplinary societies and the move away from the spectacle of torture in “monarchical power” (p.81) to the “gentle[r]” (p.104) “institutionalization of the power to punish” (p.130). The panopticon serves as a model for the different institutionalized enclosures and the individual internalization of institutional power. It is this analysis of discipline and institutional power that provokes a notable criticism from Deleuze (1992) who states that these disciplinary institutions have been made obsolete by societies of control. “Institutions are finished” claims Deleuze (1992, p.4) and enclosures are

eroded. The computational technologies of societies of control have decentralized power, making control “free floating” (Deleuze, 1992, p.4). As discussed in the chapter on biometric inscription, institutional modes of identification through physically marking the body are now technologically mediated to digital codes and passwords. The border as a physical space has eroded into the virtual (Amoore, 2006). However, as to be discussed, these disciplinary institutions and modes of control still exist.

Surveillance studies scholars debate over these two theories with some critiquing Foucault for his “pathologization of vision” (Yar, 2003), others focusing on Deleuze’s decentralized network society of control (Haggerty and Ericson, 2000), and some attempting to usher in the contemporary revivals of Foucault’s theory of the panopticon (Bigo, 2006; Gandy, 1993; and Poster, 1990). The latter faction of these scholars has been briefly addressed in the first chapter. Nonetheless, the manners in which these scholars revise the panopticon differentiate in terms of the political economy in which their theories are situated. For instance, Bigo (2006), a political scientist, posits the banopticon as a mechanism of security within the global political system of migration. Given the collation of information from various international databases, those who are presumed to be threats to security are excluded from the freedom of movement. As a form vision through profiling, the banopticon is not simply based on the present collection of personal details—it is premonition. Haggerty and Ericson (2000), on the other hand, focus more on the assemblage of networked surveillance technologies, the manufacturing of data doubles, the steady increase in surveillance as aided by technology, and the impossibility of anonymity within this system.

As discussed in the chapter on biometric capture, the computational model of information retrieval and storage (Agre, 1994) accentuates this tension between

surveillant vision and computation. Machine vision poses a huge challenge to the visual metaphor of surveillance, as Flusser (2011) would argue, to say that these machines see is to anthropomorphize them. Alternatively, this does not mean that machines are not capable of sight. Manovich (2001) notes one of the foundational principles of new media is numeric representation or digitization, which is further broken down to the processes of sampling—“turning continuous data to discrete data” (p.28)—and quantification, wherein these samples are given a numeric value. Take, for instance, the facial recognition functionality of an iPhone X, which works through the projection of multiple discrete infrared dots onto the face of its subject to create a depth map which it then records (Apple, 2018). It is important to note here that the phone is not simply recording the face or taking the image of the face. It records the dotted image it has projected on to the face as a facial capture. This bears similarity with human vision where light bounces off a surface and hits the rods and cones in the eyes. This stimulus turns to a signal, which the brain interprets as an image. To look or gaze is a sociopolitical act, as discussed in the introduction of *Animating Opacity*. The process of digitization—that is generating and numerically recording data samples—produces what Flusser (2011) calls a technical image, “a blindly realized possibility, something invisible that has blindly become visible” (p.16). As Liljefors and Lee-Morrison (2015) note, incorporating Flusser’s (2011) analysis of technical vision, this machine vision or blindness translates to biometric technologies. The creation of a technical image in the likeness of digital technology—visualization by a blind apparatus—is an illustration of the self-referentiality of technoscientific god-trick (Haraway, 1997, p.138). These understandings of machine vision position it as sight without sight.

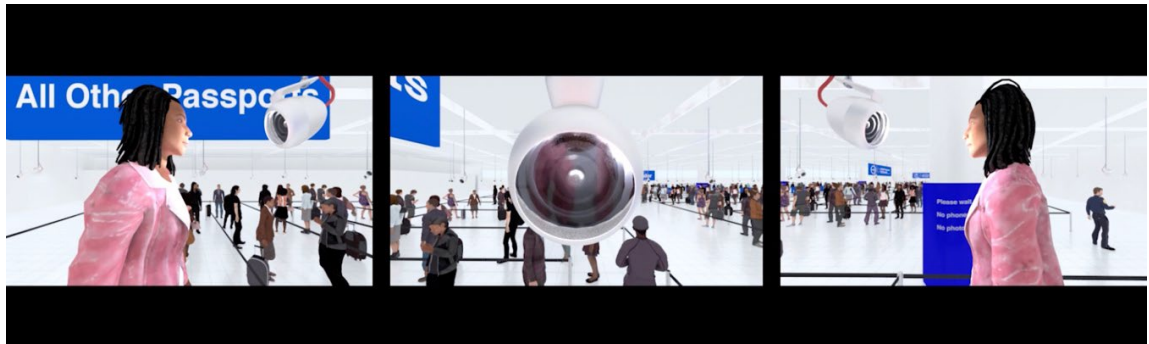


Figure 11. A facial recognition camera at the UK Border in the process of scanning. The surveillance camera in *this Dreams of Disguise* scene is based on the design for Human Recognition System's MFlow camera.

There is tension now. With this criticism against panopticism, vision in biometrics and sight in surveillance theories, there is still the matter of the flashing lights from the Mflow facial recognition cameras (see Figure 11) within the confines of the UK Border. This confounds the theories on computation and the movement away from panoptic vision, as this technology bears a poignant similarity to the panopticon in its use of light and physical space. This emphasizes the importance of ethnographic accounts and situated knowledges. It highlights Lyon's (2006) statement that despite all the technological innovation of surveillance technology, "we cannot evade some interaction with the panopticon, either historically or in today's analyses of surveillance" (p.4). Human Recognition Systems does not provide any information on its design choices on its website but considering the discussion of biometric failure to enrol or recognize darker skin tones (Buolamwini, 2016; Magnet, 2011) perhaps the MFlow camera's light is a fail-safe method of ensuring that black migrants are properly identified at the UK Border. This is all speculation, but it warrants an analysis of the surveillance of blackness and light as characterized by Browne's (2015) theory of black luminosity. This is defined as "an exercise of panoptic power" (p.68)— "a form of boundary maintenance occurring at the site of the black body, whether by candle light, flaming torch, or camera flashbulb" (p.67). Within such a regime of vision "the black,

the mixed-race, and the indigenous body” are disproportionately placed in a “state of permanent illumination” (p.67). Boundary maintenance within this context, Browne (2015) states, is a mode of “knowing the black body” (p.68). I shall speak more on this boundary maintenance in the coming section. This section first highlights the role of light in accentuating the surface and form of an object. I use light in *Dream of Disguise* as a teleportation mechanism, linking boundaries to each other. Upon the success of her biometric interview, my avatar moves to the automatic exit door, which is lit intensely (see Figure 12). She is then teleported to her apartment, where she begins the process of applying for a biometric capture again.



Figure 12. The lead character while exiting the UK Border in *Dreams of Disguise*.

Browne (2015) traces black luminosity from the 1713 lantern laws in New York, following the 1712 slave revolt. These laws required black and indigenous slaves over the age of 14 to carry a lantern when walking through certain sections of the city at night. Slaves who were unattended were also subject to this regulation. The law included stipulations for the intensity of the light—one lantern or candle for every three black slaves walking in public. Browne notes that these laws “marked black, mixed-race, and indigenous people as security risks in need of supervision after dark” (Browne, 2015, p.78). Thus, the scholar notes: “We can think of the lantern as a prosthesis made mandatory after dark, a technology that made it possible for the black

body to be constantly illuminated from dusk to dawn, made knowable, locatable, and contained within the city” (p.79). Although Browne’s historical account of the lantern laws does not trace the 1713 regulations to the violent illumination of black neighbourhoods in the late 1900s, luminosity is highlighted as a major form of control and violence as portrayed in the seminal film *Boyz in the Hood* (1991). Scholars (Diawara, 1993; Massood, 1996), have noted the ubiquity of the surveillance helicopters in *Boyz*. A scene in the film shows the drawings by children in the neighbourhoods of South Central, Los Angeles. Among these is a rendering of the police helicopter shining a ray of light down into the black community. More recently, in the visual for Jay-Z’s nostalgic song *Marcy Me* (2017), a police helicopter, in search for a hooded black man, directs its harsh lights on the black denizens of the present-day neighbourhood of Marcy and Myrtle, New York. What ensues is not a “hood” film in the style of *Boyz* but a view into the quotidian events within the neighbourhood, with the helicopter serving as a spotlight. Singleton uses this stylization of the helicopter as a spotlight in *Boyz*. However, his characters hardly pay attention to or look at the light. This is accentuated in a scene where after, a black anti-black police officer harasses the lead character Tre; he breaks down crying in front of his girlfriend, Brenda. As Tre’s fear and anger subside, the couple begins to be intimate with each other. The helicopter light pierces through their covered windows, voyeuristically beaming over the couple’s bodies. In comparison, the characters in *Marcy Me* perform their agency in “looking back” in an oppositional gaze (hooks, 1992, p.131). In similar manner with *Boyz*, the helicopter shines its light over a couple kissing in a back alley, reacting to the disruptive light the partners dissent, with one flipping off the officers and the other baring their nude buttocks towards the light.

The panoptic power of light or black luminosity, as stated by Browne (2015), mediates the black body, confining it to certain spaces in the city. Surveillance through light is not only true for the 1700's black and indigenous slave, but it is also as portrayed in *Boyz* (1991) and *Marcy Me* (2017), the denizens of certain black neighbourhoods in the United States. As Massood (1996) reports about *Boyz*:

the repeated searchlights and off-screen sounds of police surveillance helicopters [...] ostensibly serve as the invisible, though central and constant, signification for the limitation of movement and the power relations inherent in that delimitation. Their pervasiveness marks the boundaries of the hood. [...] As with Foucault's panopticon, this method of control, dispersed over the urban landscape, works to keep the community in its place through the awareness and internalization of surveillance and perceived criminality (p.90).

In the refusal to internalize the disciplinary gaze of the panopticon, the residents of *Marcy* and *Myrtle* prove that subjects of the panoptic gaze are not simply docile (Yar, 2003)—they participate in this visual relationship, controlling what they want to be seen and how they choose to move through the light. Jay-Z's disembodied voice nostalgically speaking back as the one who has moved out of 'the hood' emphasizes the right to mobility. However, despite the rapper's economic and spatial mobility, he speaks as a resident of the Marcy Projects, where he grew up. Therefore, a major statement in Jay-Z's music video is the right to opacity and mobility for black people. This is characterized by the young boy who takes up much of the screen time in *Marcy Me*. An older man sends him on an errand to buy some snacks from the corner shop. While the light follows the boy on his way to the shop, he ignores its presence. He purchases the refreshments and cigarettes and takes them back up on the roof where the older man is socializing with other black people. The light sharply traces the outlines of the neighbourhood gathering up on the roof. In a beautiful landscape shot, the light from the helicopter above creates an orb confining the group within its radiance. They—the

little boy included—all return the gaze of the helicopter as though in protest and it immediately turns its light off.

Touching Bodies Out of Place: On Space, Affect and Borders

In the train I was given not one but two, three places. [...] I existed triply: I occupied space. I moved toward the other . . . and the evanescent other, hostile but not opaque, transparent, not there, disappeared.

(Fanon 2008, p.84)

While light and vision are unavoidable perils of critiquing surveillance, they are also a key subject of debate in the humanities. As Mitchel (2002) writes, a myth about visual culture is that “modernity entails the hegemony of vision and visual media” (p.169). In response to this myth, he states that vision has been the “sovereign sense” since God started creation with the conception and separation light from darkness (Mitchell, 2002, p.174). “To live in any culture whatsoever is to live in a visual culture,” the scholar notes (p.174). An important undertaking here is to explore the connection of vision to other senses. Amoores (2007) takes this suggestion from Mitchell (2002) to heart as she explores vigilant visualities: a “watchful politics” that “‘looks’ out with an anticipatory gaze” (p.216). Amoores offers the US Highway Watch, as a prime example of vigilant visualities. The Highway Watch consists of school bus drivers, toll booth operators, and highway staff who were trained by the Transportation Security Administration to spot strange events on the highway (Amoores, 2007). The scholar notes that communal surveillant vision of the Highway Watch has had an adverse effect on Arabic people, Muslims and migrants as this group deployed racial/ethnic profiling in its bid to secure the highway. Anyone who has used the National Rail Service in the UK from November 2016 must have come across the “See it. Say it. Sorted.” campaign, a British example of vigilant visibility. “See it, Say it.

Sorted.” consisted of posters each offering a scenario in security threat watch (British Transport Police, 2016). Reading these posters as security propaganda, the ubiquitous presence of these visuals on large screens, in large prints and on most train stations gives an unsettling feeling to any commute due to their signalling of an ever-looming danger. Reading these posters as graphic works of art, on the other hand, it is difficult to ignore the racialization of the characters in the grainy black-and-white images that accompany the campaign slogan. For instance, one of the posters uses skin tone, light and perspective to symbolize a clear dichotomy between the dangerous criminal and the vigilant citizen. In this poster, the watcher (a young white woman) is drawn in a well-lit area observing a suspicious character (a dark-skinned person) who is walking into a dimly lit un-authorized zone. This pattern of lighting is repeated in most of the posters. Public outcry caused the British Transport Police to recall the most ostentatious of these posters in which the illustration of the suspicious character bore too close a resemblance to a Nazi propaganda poster (Telegraph Reporters, 2016).

Mobile technology facilitates these vigilant visualities as the view from the window of the neighbourhood watch is combined with the views from computer windows and the screens of mobile phones. “Screenic seeing” (Cooley, 2004, p.143) as opposed to “window-ed seeing [...] reconfigures one’s relationship to that which is seen” in each interface. These types of digital visuality are differentiated by their levels of immediacy, with the latter requiring more layers of mediation. Take, for instance, the different experiences in using the mouse or a trackpad against using touchscreen computers. With the capacitive screen, screenic seeing is attainable. It is a matter of the gestures of touch—one can tap, pull, point, swipe, pinch, spread, and drag with the natural movements of one’s finger across multiple *screens*. The hand is the pointer as opposed to the representation of ‘pointing’ with a cursor. The grammars of action in

windowed seeing facilitated by mice require clicking and scrolling through multiple scalable windows on one screen, bending to the limited mechanism of the mouse. Even with more sophisticated laptops, with the hardware interfaces tethered to a mouse as opposed to a touchscreen, one would need to introduce another layer of mediation—a keyboard with hotkeys that enable multi-screenic viewing. Cooley (2004) defines tactile vision as “a material and dynamic seeing involving eyes as well as hands” (p.137). As a mode of seeing, as Cooley states, tactile vision is more engaging yet more absent-minded. Take, for instance, the designing of the YouTube Kids application for touchscreens phones and tablets. The design facilitates ease of use and engagement¹² of YouTube Kids for its toddler to pre-teenaged audience (LaFrance, 2017). The tactile mode of seeing, for Amoore (2007), while easing the modes of image-making on mobile phones complicates vigilant vision. “The screen is ambivalent,” Amoore notes, as it “performs borders and boundaries, but it also invites us to play upon them” (Amoore, 2007, p.222). In this sense, Amoore highlights that vigilant visualities can be disrupted via the mobile phones technologies on which they currently rely. We see this logic in the exclusion of mobile phones from spaces such as the UK Border wherein there tends to be noticeable signage: “No phones. No Photography.” For the state, touch has other meanings. Within its regime of vigilant visibility and demand for attentiveness and alertness, the state “must occlude the possibility of seeing differently. Specifically,

¹² It is important to stress the role of YouTube’s algorithm in directing its viewers to watch engaging content. However, as I have noticed with my 3-year old and 4-year old nieces, children are even more engaged when they can tap on other videos, drag content down to activate the miniplayer, and multi-task. There is an ease they have with a touchscreen that is not replicated when they are sat in front of a monitor attempting to control the mouse. This might be due to the grammars of action one would need to know—such as clicking, double clicking, right clicking, middle mouse scrolling, hovering—in order to use a mouse.

it must say ‘*look, but don’t touch*’” (Amoore, 2007, p.223). This visibility complements the championed untouchability of the sovereign state (p.223).

Within the context of immigration in the UK, the rhetoric of touching and the state implies a politics of boundary maintenance that is both tangible (spatial and tactile) and metaphorical. So far, *Animating Opacity* has addressed anxieties about race, biometrics and migration as an epidermal issue (Browne, 2015; Fanon, 2008), but as Ahmed (2000) notes one must not solely read difference as a matter of superficial distinctions of “the body as text” (p.43), but also one must “account for the very effect of the surface, and [...] how bodies come to take certain shapes over others, and in relation to others” (Ahmed, 2000, p.42-43). The “economies of touch” (p.49) must be accounted for, as some “bodies are touched by some bodies differently from other bodies” (p.48). The skin, as the primary organ of touch, is that which contains its subject, according to Ahmed (2000). The skin gives shape, outline and—as stated earlier—relation to light to the body. The skin is susceptible to cracks, injuries, and scars. It can be marked with privilege or difference, which mediates how one may touch and be touched by others. It is a “boundary that guarantees a separation” (Ahmed, 2000, p.42-43). Indeed, as Ahmed emphasizes, “if the skin is a border,” then it is a “border that feels” (p.45). Therefore, within this economy of touch, the individual skin relates to the national skin—the border—and an individual’s body takes shapes within the body politic through exclusionary or inclusionary practices. Thus, to paraphrase Ahmed, the social body is one that is produced by networks of touch, in which some bodies are seen as non-threatening and others a potential source of threat (Ahmed, 2000, p.49). This relation of touch, therefore, carries implications for spatial relations as the ‘non-threatening’ white cisgender male body is given freedom of movement to touch and be near others, while the othered threatening body remains restricted. The migrant body

produced within these surface relations then becomes touched in a peculiar manner. As Ahmed (2000) notes:

to withdraw from a relation of physical proximity to bodies recognised as strange is precisely to be touched by those bodies, in such a way that the subject is moved from its place. In this sense, the stranger is always in proximity: a body that is out of place because it has come too close (p.49).

How the migrant body takes shape in economies of touch is, therefore, an integral subject in security and migration. As Ahmed (2000) states, the recognition—or ‘knowing again’ (p.37)—of the migrant body as out of place is an iterative process that results in violent acts of expulsion highlighting the out-of-placeness of these bodies. Recalling the event of the escorted man from my earlier ethnographic account, the iterative cycle of violent expulsion and out-of-placeness is in effect. The detention or removal of the man from the sub-boundary of ‘legitimate’ others both enforces boundary maintenance of out of place black bodies at the border while producing signs of this out-of-placeness through the visible removal of the black migrant at the UK Border.



Figure 13. A full-body scanner in the video game *Border Ritual 2.0*. The player collects trickster tokens and jumps over the scanner, wherein other versions of herself are trapped. Touching them will take a life point from the player.

This autoethnographic account also addresses the impossibility of touch at the UK Border. At this juncture, Ahmed's (2000) economies of touch converge with Amoore's (2007) theory of the untouchable sovereign state and Browne's (2015) theory of black luminosity. Technologies such as the backscatter X-rays and millimetre wave full body scanner that bounce or reflect electromagnetic radiation work with the same principle of light as the iPhone X infrared dots. Unlike the depth maps from the iPhone X, which is mostly hidden except in infrared light, the aim of these technologies is digital imaging for securitization of the border. The nature of the radiation from these technologies sees through organic matter, thus aiding the security guards' identification of metals or other dangerous material hidden in the body. As discussed in the first chapter in the visualization of the body in biometric technology, these technologies render the body as an evanescent object (to paraphrase Fanon, 2008, p.84) through which the technoscientific gaze can simply "fly through" (Waldby, 2000, p.73). Bodily matter or the skin as the "matter which separates the body" (Ahmed, 2000, p.45) is touched with light in a manner that momentarily undoes layers of clothing and shapes bodily surfaces as vapour. This touch of light on the surface of skin serves a means of knowing the body of the scanned passenger, securitizing through boundary outlining (see Figure 13). As highlighted by Magnet and Rodgers (2012), these technologies mark "the delegation of the state's "touch" to unseen" (p.113) waves and rays of light. Here again appears another issue with touch in the UK Border—these rays of light used in backscatter X-rays and millimetre wave scanners visualize their subjects' nude form. Airports such as Gatwick (2014) attempt to manage public perception of invasion of privacy by informing guests that their millimetre scanners have "abstraction layers" (Fuller and Goffey, 2012, p.79) in their interface that only represent threat zones as boxes over a crude image of a "gingerbread man" (Gatwick, 2014, p.1). As Magnet and

Rodgers (2012) note, airports tend to favour these scanners over hand searches, which ensue their own politics of state-sanctioned sexual assault (Davis, 2003) and economies of touch. This is characterized by the separation of state agent from their subjects using latex gloves. To be touched by the state is, therefore, to have one's physical bodily integrity assaulted by the state. The latex glove worn by the security guard during a hand search, just as bulletproof vest on the UK Border armed guards, highlights whose boundaries may be violated and whose must be excessively protected. Boundary maintenance through clothing stresses Ahmed's (2000) point of understanding the interactions of surfaces as a relation of power.

Addressing the affective economies of pain, Ahmed (2004) links the word "contingency" to the word "contact," both of which, she relates to touch and proximity. She states that "Contingency is linked in this way to the sociality of being 'with' others, of getting close enough to touch." (Ahmed, 2004, p.28). The writer uses touch here in the tactile and spatial sense, which is presented in the previous paragraph. Here, Ahmed employs its affective connotation, as expressed in statements such as 'feeling touched by kindness or love,' 'a touching rendition,' or even 'being touchy' as in to be sensitive. For Ahmed (2004) it is "what attaches us, what connects us to this place or that place, to this other or that other is also what we find most touching; it is that which makes us feel" (p.28). Consequently, Ahmed (2004) reiterates her theses in her earlier work (Ahmed, 2000) that what touches us shapes our surfaces. In relation to the previous discussion on the body and space, contingencies take form in national, familial, economic, and spatial economies of touch. For instance, in the introduction to her book *The Cultural Politics of Emotion*, Ahmed (2004) offers an example of the mobilization of affect in the campaign poster for the far-right group the British National Front or National Front (NF). Within the National Front's campaign, migrants are vilified for

abusing “soft touch Britain”—a concept popular amongst anti-immigration supporters to emphasize the perceived ease of life for immigrants in the UK, who are assumed to abuse the country’s social services (Ahmed, 2004). The poster Ahmed analyzes uses similar anti-immigration language used by a speaker in Keith Piper’s (1992) *Tagging the Other*. Placed adjacent to each other, these statements highlight that emotions tend to “stick” to and “circulate” across bodies. The statements are as follows:

It is a serious problem. There are about *a thousand* applications being made in a week. How many of those *bogus*? I don’t know. But it is thought that a great majority of them are *bogus* (unidentified speaker cited in Piper, 1992, no pagination).

Every day of every year, *swarms* of illegal immigrants and *bogus*¹³ asylum seekers invade Britain by any means available to them . . . Why? They are only seeking the easy comforts and free benefits in Soft Touch Britain. All funded by YOU – The British Taxpayer! (British National Front Poster cited in Ahmed, 2004, p.1).

With a gap of twelve years, the discourse of migrants as untrustworthy bodies of people “swarming” in the “thousands” has barely changed. As Ahmed (2004) notes, “emotions work as a form of capital” (p.45) therefore any given sign or object within an affective economy could take any value. A key requirement for the advancement of this economic system is the erasure of the production of affective value. Therefore, an attachment to the White familial bond of British nationalism through paying tax, according to the National Front should make one have negative feelings towards migrant’s abuse of Soft Touch Britain.

In terms of the contingency of surfaces, Soft Touch Britain then takes on another meaning, where “softness” is denigrated as a characteristic of weakness, femininity and

¹³ Emphasis mine.

vulnerability. Here, vulnerability is an openness to the threat of danger (Ahmed, 2004, p.69), which manifests as fear. For Ahmed (2004), fear ensues a spatial relationship that “works to restrict some bodies through the movement or expansion of others” (p.69). She presents a scenario repeated in *Animating Opacity*. This is the “Look a Negro!” moment wherein a white child responds to Fanon’s (2008, p.84) presence by highlighting the sighting of the negro. What is more, the child repeats this phrase, the more Fanon’s body constricts. When, finally, the child says to his mother, “I am frightened” (p.84), Fanon describes the feeling of a circle enclosing on him. The little boy’s fear, therefore, collapses the space around Fanon. In Ahmed’s (2004) account of the spatial politics of fear, the affectation works on the body of the object of this emotion instead of the frightened person. It is then evident why states respond to terror by restricting the movements of certain bodies that it fears. While it is difficult to pinpoint a single cause of fear of the migrant—the fear of difference, economic collapse, acts of terror, and increase in crime could be easily peppered into any given anti-immigration speech—there is a very salient response to this affect in national policy. If Britain was ever “soft touch” Theresa May’s “hostile environment” policies placed the country on a path to toughness that veered towards villainy. The phrase “hostile environment” can be traced back to May’s interview with reporters Kirkup and Winnett (2012), wherein the then-Home Secretary stated a key tactic to manifest her promise to the voting public to reduce immigration from the hundreds of thousands to the tens of thousands. Tactics to reduce immigration numbers would be to place strict laws that made it difficult to reside in the UK without appropriate documentation. These laws targeted irregular migrants but became the standard for immigration in the UK, as to be further clarified. May’s rhetoric against softness would help her secure the Prime Ministership with her rallying cry for a “strong and stable” leadership in the UK (Poole,

2017). Rhetorics of touch follow through in the debates for a “hard Brexit” or “soft Brexit” as the UK attempts to redefine its terms of contact with the European Union (Ahmed, 2016). However, as Ahmed (2004) stated, the threat of fear tends to create an enclosure around its object. Thus, the hostile environment as a manifestation of fear led to immigrants’ separation from their families (Hill, 2017), lack of access to social services and economic freedoms (Gentleman, 2017), detention and deportation (Abbott, 2017).

Make Me Wanna Holler: On Re-Citations and the (Im)Possibility of Hearing

I am concerned that the Home Office has become too concerned with policy and strategy and sometimes loses sight of the individual. This is about individuals, and we have heard the individual stories, some of which have been terrible to hear.¹⁴

Former Home Secretary, Amber Rudd (cited in Gentleman, 2018)

Let us call it as it is. If you lay down with dogs, you get fleas, and that is what has happened with this far right rhetoric in this country.

Labour Member of Parliament, David Lammy (cited in Rawlinson, 2018)

The inclusionary and exclusionary practices of maintaining the national border and identity, emphasizes who is said to belong and who is said to be a body out of place. In April of 2018, what had been boiling in the press since the previous year (Rawlinson, 2018) came to full steam as activists and journalist called the UK government to be held accountable for its treatment of the group of post-war migrants from the Caribbean. As I have noted in the chapter on capture, the colonial law passed in 1948, the British Nationality Act, granted citizens of British colonies access to the national border (Solomos, 1988). With the growing anxiety about immigration and

¹⁴ Emphasis mine.

British colonies gaining their independence in the 1960s and 1970s, the British government restricted the movement from its former colonies. Within the era of free access to the “mother country” (Fryer, 1984, p.374) from the British colonies, on the 22nd of June in 1948, the vessel *Empire Windrush* brought in 500 Jamaicans as one of many post-WWII events that attempted to fix the labour scarcity with migrant workers. The Windrush generation, as they are called, had increased to 125,000 Caribbean people as of 1958 (Fryer, 1984), changing the fabric of British culture. Thus the 2018 “Windrush scandal,” tacks on an extra layer of betrayal, as the people who were invited to build up post-war Britain had their rights as settled individuals threatened, after being in the country for over 50 to 70 years. As May’s “hostile environment” policies require adequate documentation for work, education, housing, access to social services and entrance into the UK—surveilling over every aspect of a migrant’s life—this generation of British citizens who did not need to incessantly prove their right to be in the UK with documentation found themselves the subjects of removals and refusals, from their places of employment, from the National Health Service (NHS), and from entry into the UK (Rawlinson, 2018). An estimated 50,000 people who never formally applied for citizenship—because they were never required to do so under the 1948 British Nationality Act on which they were granted access—were threatened with deportation because of the “hostile environment” (Gentleman, 2018). As Rawlinson (2018) reports, after the pleas from Caribbean diplomats, a number of press articles detailing personal accounts of detention, and skewering speeches from members of parliament such as David Lammy, Theresa May and her successor Amber Rudd apologized for the pain their policies had brought on these *individuals*, promising that they will be granted UK citizenship (Crerar, Perkins, and Gentleman, 2018) and none of them will be deported. In Rudd’s official apology, as quoted above, she emphasized the need to *hear* the stories

(Gentleman, 2018). Time will tell how the immigration policies of the Home Office will act on its promises and new charges. However, if this advice to hear the stories of migrants is to take effect, the politics of listening and speech at the border must be changed.

Speech is so intricately tied to political action, that listening often connotes inaction or passivity, Lacey (2014) notes. Much of the political discourse of resistance insists on speech. To dissent is to have a voice; to speak truth to power; to chant down Babylon; to “call out, protest, speak back” (Nakamura and Shah, 2018, no pagination). With so many speakers, the politics of speech has veered into soliloquies. Lacey (2014) notes that “speech is sounded out, and therefore demands a listener” (p.11). There must, therefore, be a politics of listening alongside that of speaking, with the consideration that listening is an “embodied activity and as a metaphor for an interactive politics and communication” (p.6). Listening, according to Lacey, “opens up a space for intersubjectivity” (p.13)— “a form of radical openness” (p.7). Within this context, to “listen in” is to be engaged in mediatized public discourse in some cases as an anonymous audience (Lacey, 2014, p.7). To “listen out,” however, is an ethical action of “attentive and anticipatory communicative disposition” (p.7). This draws comparison of Chun’s (1999) conceptualization of the politics of listening as an act of witnessing. To listen is not simply to register sound waves but to participate but to “become implicated” in the events described (Chun, 1999, p.138). It is to be moved, touched, affected; “to feel the victim’s victories, defeats and silences, know them from within, while at the same time acknowledging that one is not the victim” (p.139). Then, a condition to listening is to acknowledge that try as one might, one cannot feel the subject’s pain. One must accept the “ungraspability” of pain felt by someone else

(Ahmed, 2004, p.30). Therefore, one must “learn how to hear what is impossible” (p.35).

The use of sound in *Dreams of Disguise (DOD)* (Fubara-Manuel, 2018a) and *Border Ritual* (Fubara-Manuel, 2016a) highlights the problem of hearing the impossible at the UK Border. In *DOD*, the sound is ambient. The soundscape of a place highlights its social organization, the function, and people that inhabit that space. Most people who grew up in Nigerian cities would know a bus park from its sounds—whether in Lagos, Port Harcourt or Ibadan the sound is recognizable. There will usually be bus conductors screaming out there stops in a sing-song manner, food hawkers spelling out their prices and products for the day, the sounds of run-down engines and exhaust pipes, and the occasional preacher on their loudspeaker. When designing the sound for *DOD*, I became increasingly aware of the sterility of the border and the traces of earlier methods of identification in it. The most prominent sound in my memory was the stamp of the passport. The stamping of documents at the border highlights the function of this space and a zone of identity verification and re/assignment. The stamp is especially hard in *DOD* when the scene cuts from the biometric database back into the UK Border. The hardness of this stamp of approval highlights the finality of the moment when the body has been reduced to its ascribed truth. Playing over the sound of the stamping at the border is a non-diegetic composition of several Shepard tones layered over each other fading in and out. An auditory illusion, Shepard tones are sounds that seem to rise in intensity, yet never end (Rapan, 2018). Common applications of these sounds give the illusion of “perpetual motion” (Rapan, 2018, p.137), a sense of waiting, that evokes anxiety. In *DOD* these sounds, whether ascending or descending, play through the border seamlessly linking all the spaces. The constant rise of intensity of these Shepard tones evokes the inescapability of the border. It is this inescapability one would feel

where they are living in a ‘hostile environment.’ In compositing these sounds over the border, I ask the audience to “listen out”—to be attentive to the dips and ascensions of these otherworldly spaces. I ask the audience to witness but acknowledge that they cannot claim this pain as their own to paraphrase Ahmed (2004, p.35).

Alternatively, the use of the re-enactment of my UK Border interview as the soundscape in *Border Ritual* presents a different politics of sound and listening. As I have stated in the first chapter, where I closely read *Border Ritual*, speaking at the UK Border is a matter of repetitions and re-citations of the information the state has about an individual’s identity. Most of the “hearing” at the Home Office occurs during the border interview. Consequentially, it is here that Rudd’s apology might fall flat, as to move beyond policy and strategy to hear the individual, this person must be able to speak in the first place. As stated in the first chapter, speech at the border is similar to singing a chorus—it is a matter of repeating refrains. The chorus of “yes, I am who I say am” is played alongside the sample of one’s fingerprint. If the sample of the biometric scan does not match, then you are not who you say you are. Therefore, within this condition of iteratively referencing oneself as constructed within the system that has created the identity to which one refers to, as Spivak (2009) declares, “subalterns cannot speak” (p.283). The technoscientific god-trick of self-referentiality (Haraway, 1997, p.138) has thus created speech through which its subjects can voice themselves. hooks (1990) notes, the epistemic violence inherent within the logic of speech between the colonizer and the colonized as follows: there is “no need to hear your voice when [the colonizer] can talk about you better than you can speak about yourself” (p.343). However, the colonizer still wants to hear your pain so it can “know your story” in order to recite it to you and—in this case, have you recite it back (hooks, 1990, p.343).

Nevertheless, hooks states that there is power in speaking from one's positionality—one's place about their subject. There is power in "speaking your pain" (hooks, 1990, p.343). Thus, in speaking my pain, I want to move away from the theory of opacity and speak briefly on its affective value for me and possibly other people who share my pain. September 2018 marked my tenth year as a black queer Nigerian living as a migrant outside my home country. I have spent six of these ten years in the prairie city of Winnipeg, Canada and the rest by the seaside town of Brighton, UK. For most of that decade, I have lived in papers, with the latter half in databases. I have been misgendered on these documents, harassed in biometric capture rooms, and paid more than I earn in visas and resident permits. While I cannot remember most of the events that have occurred between my acquisition of these documents and the reading of my body, the pain of living in reverence to this data—to this reductive knowledge—is palpable. I feel it every day as I catch myself glancing off to the side as I consider what abuse I may suffer if I were forced to return to my home country where my sexuality is criminalized or what abuse I may suffer if I were to apply for asylum. Reflecting on these options, I have come to realize the importance of opacity for my survival, as the violence of transparency encloses many aspects of my life. What does opacity mean to me? It means the right to live in my skin with the multiplicities of my layers—queer, black, Nigerian, irreducible solid matter. The right to speak of my existence beyond the data page of my passport and biometric resident permits. My right to move freely in the world outside of the blinding light of surveillant control.

Biometric Spatiality: Landscaping the Border

It was midnight, a day in September 2017 when I received a call from my brother who had just graduated from University in Canada and applied for a post-graduate work permit. He had received a rejection letter. After spending 8 years in Canada, Citizenship, and Immigration Canada (CIC) asked him to leave. The language in the letter circled around his “worth” in contributing to Canadian society. During this period, I was working on *Dreams of Disguise (DOD)* (Fubara-Manuel, 2018a). Confronted by a character I had modelled after an African man who I saw getting detained by an armed guard at the UK Border, I began to machinate his escape. The man, even in my attempt to disrupt the virtual border in *DOD*, could not escape the unending loop of detention, with his mobility limited to the sterile three-dimensional world I had designed to represent the UK Border. The more I worked on *DOD*, the more the thought of my brother’s expulsion from the Canadian Border coalesced with this man’s detention at the UK Border. In my moment of despondency, I started playing video games to escape the traumatic spatialization of blackness through expulsion and detention. Although I played mostly hack and slash, adventure-fantasy AAA games with white male leads, I relished the freedom and beauty packed in these polygonal environments. Again, even in virtual worlds, the fact that black people’s—black women’s—spatial freedom was still rare, tinged the freedom and beauty I felt. As a media artist, I decided to create a game. It would be a walking simulator with AAA game aesthetics, in which the black woman migrant from *DOD* would return to the border to help the detained character escape the border. Called, *Dreams of Disguise: Errantry (DOD: Errantry)* (Fubara-Manuel, 2018b), I positioned this an attempt to

dream up geographic possibilities and embody geographic agency (McKittrick, 2006, p.96) for black migrant bodies.¹⁵

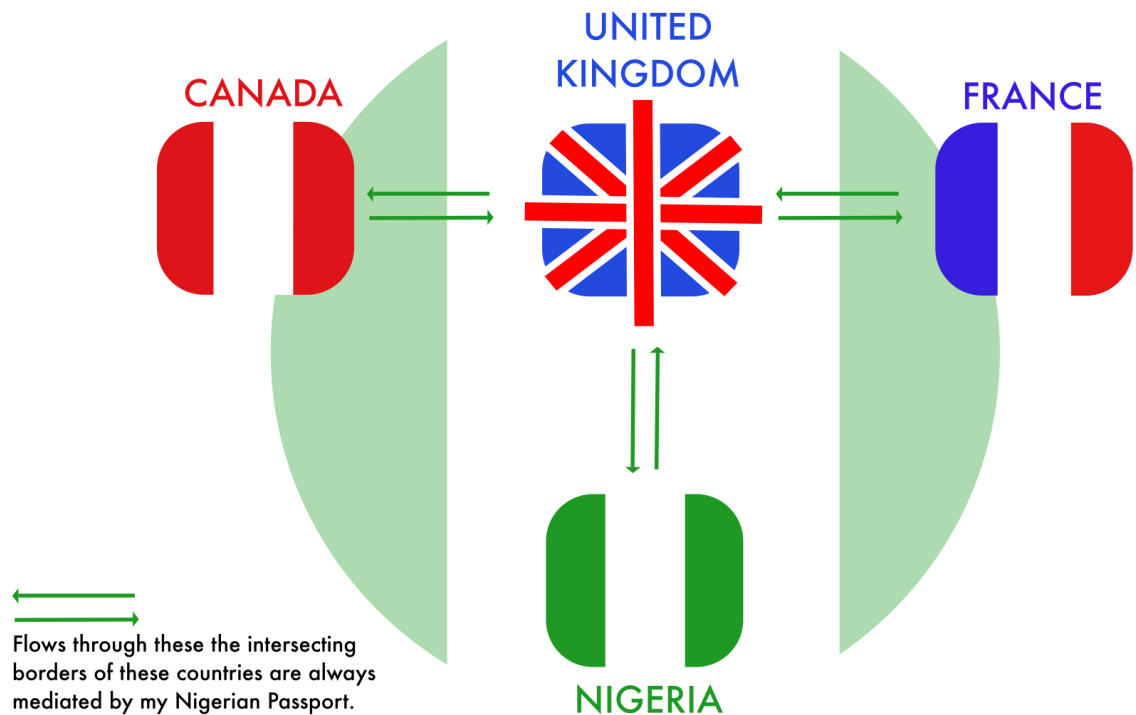


Figure 14. A simplified diagram of my migration trajectory. The above figure shows the countries I travelled to and their interactions mediated by my Nigerian Passport or the Nigerian border with these countries.

So far, *Animating Opacity* has not directly addressed geography even as it is an auto-ethnographic project situated within geographic borders. These geographic borders, as addressed in the previous chapters, are spatialized as national borders, mediated through other national borders, regulated through digitized technological borders and further biomediated across epidermal borders. Specific to my experience (see Figure 14), these boundaries are vectored across the biometric Canadian-British

¹⁵ The introduction is a redrafted version of that in *Dreams of Disguise: Errantry*. Presented as slides of text prior to the title screen, this anecdote serves as the narrative context driving the game.

border as introduced in the previous chapter and opening paragraph. The boundaries are also vectored across the physical French-British border, as described in my return from France with my partner and my Dover-Calais ferry ride in the first chapter. Ultimately, the Nigerian geopolitical system that determines my movements across and within these nations mediate these vectors. The interaction of these borders across these four nations makes mapping individual national borders a messy endeavour. The problem with attempting to geographically map these, as De Certeau (1984) articulates, is that who owns which border becomes a key point of debate. In attempting to map out the borders I have examined in *Animating Opacity*, I run into the problem correctly naming borders—as in, knowing *where* to place the UK Border, Canadian Border, or French Border. Are borders spaces as well as edges? Am I in the UK Border when I am boarding a plane to London from the Toronto Pearson Airport? I find myself, to paraphrase De Certeau (1984, p.127), with a theoretical and practical inquiry instead of an answer—to whom does this border belong? Foucault (1986) addresses these hard to categorize spaces as ‘heterotopias’—“counter-sites, sites that [...] are outside of all places, even though it may be possible to indicate their location in reality. Because these places are absolutely different from all the sites that they reflect and speak about” (p.24). Salter (2007) illustrates this point in his analysis of airports as heterotopic zones. The airport is a collection of places such as the mall, the national border, and the detention center. In this sense, the airport both functions as all these places, yet it differs from all these individual zones by upholding a set of rituals that deviate from these other places. Salter highlights that the airport is simultaneously a zone of mobility and containment, granting travelers access to other countries while restricting national others through biometric checks, detention and deportation. It is under the same principle of paradoxical mobility and containment that the border is a heterotopic space.

The border is both inside and outside of national space, restricting migrant others and granting mobility to a selected few of its nationals and preferred travelers. It is the state of the border being inside/outside that causes the replication of the Nigerian border at every point of entry with no regard that I have not lived in Nigeria for over a decade.

While the current chapter addresses the themes of margins, edges, frontiers and such, it does so with an acknowledgement that the tension in categorizing these heterotopic spaces is beyond resolution. In this chapter, the tension of frontiers is represented in the debates within critical border studies and black feminist theory. In accordance with McKittrick (2006), this chapter moves beyond the theory of margins to center the border as a legitimate site of agency for migrants. The chapter moves from the territorial trap of attempting to place the location of the border as outside or inside the nation to place the border as a zone where migrant agencies can be activated. Therefore, the border is no longer a space in which national bodies and private border policing companies solely claim power. It is a zone that can be—and is—constructed by those who live within it. Furthermore, acknowledging the theoretical and practical tensions of the border underscores that it is the messiness of the border that inflames anxieties about immigration and boundary-crossing, as the border is relational; it is always touching something else. Thus, the technosolutionist remedy to the problem of maintaining these wayward boundaries is biometric technology. Computational solutions flare up their own issues of boundary maintenance as they attempt to map epidermal borders. From the imperative of informatizing of the body—reducing the body to a bio-metric document—emerges the “problem of bodily opacity” (Waldby, 2000, p.24). The complexity of the body, the mutability and multiplicity of its layers defies the computational logic of biometric systems, in that the body refuses to bend to ways in which it has been abstracted for biometric capture. Whether as skin tone,

fingerprints, facial features, gaits or voice patterns, the opacity of the body—its defiance of simplification—engenders errors such as failure-to-enroll (FTE), false-acceptance and false-rejections. Consequentially, from the imperative of biometric capture and verification, arises the errant body—a body prone to biometric failure. From the imperative of boundary maintenance through sensory and affective economies of biometric borders, emerge those bodies that softly touch or ‘intimately trespass’ (Hartman, 2017) the national body.

Attempting to place “*the ‘where’ of the border*” (Brambilla, 2015, p.19), this chapter returns to an analysis of geocorpographies (Pugliese, 2007; Pugliese, 2010) of the border within which certain bodies are the grounds for the enactment of geopolitical anxieties. Pugliese (2010) defines geocorpographies as “the indissociable relation between geopolitics, bodies and biopolitical technologies of inscription, surveillance and control” (p.92). As a portmanteau of *geo-graphy* (writing land) and corporeality, *geo-corpo-graphy* best captures the inscription of the border onto the bodies of migrants. As iterated on numerous occasions in *Animating Opacity*, due to the virtualization of borders, the bodies of migrants become “the carriers of the national border” (Amoore, 2006, p.348). However, the virtual state of the border—both in the imagined nature (Anderson, 1991) of the lines that demarcate nations and the network of digital technologies that constitute the biometric border—does not negate its physicality. The virtual state of the border re/enforces its physicality and vice-versa. Therefore, scholars within the field of critical border studies attempt to deal with the troubling interplay of the virtual and the physical, attempting to find the seams of their convergence. Critical border studies scholars have written on the theory of ‘borderless’ nations that gained popularity in the 1990s. This theory, in response to the globalization and the deterritorialization of borders, claimed that the world was borderless, and

geography had ended (O'Brien, 1992; Ohmae, 1999). More recently scholars have debunked the fatally optimistic notion of borderless nations, stating that borders and 'b/ordering' practices (Houtum, Kramsch, and Zierhofer, 2005) have taken on complex forms, seeping into more unprecedented areas than ever before.

'Borderscapes,' have consequently become an essential concept within critical border studies (Brambilla, 2015; Perera, 2007; dell'Agnese and Amilhat Szary, 2015), aptly making way for the practices of the production and maintenance of the border. The current chapter explicates conceptualizations of borderscapes, laying out the debates and circumstances that necessitated its formulation. Borderscapes as the "making and remaking of different forms of border space" (Perera, 2007, p.206) also offers a theoretical framework and relational position for the art practices explored and created within *Animating Opacity*. This chapter will address these contentions about the spatiality of the border, positioning the theory of borderscapes as the most suitable for the contemporary frontier, as borderscapes include the hegemonic and counter-hegemonic zones of demarcation. Borderscaping moves beyond the attempt to locate borders spatially to address the counter-hegemonic production of the border as an important component of these zones. *Dreams of Disguise* and *Dreams of Disguise: Errantry*, my experimental 3D animation project and video game representing my traversal through the virtual and physical border—the borderscape—are the focal point of this inquiry. In addressing these pieces of work, this chapter explores the possible 'scapes' (Appadurai, 1990) of border production and reproduction by the precarious bodies that inhabit the borderscape. Following the theory of scapes, borderscapes are "deeply perspectival constructs inflected very much by the historical, linguistic and political situatedness of different sorts of actors: nation-states, multinationals, diasporic communities, as well as subnational groupings and movements" (Appadurai, 1990,

p.296). Following Appadurai's (1990) notion of scapes, borderscapes are “fluid, irregular [...] landscapes” (p.297) in constant production by state and individual agents. This chapter lays out these production practices of borderscaping through art and gamic interventions, exploring the potential of these cultural products to create counter-hegemonic spaces of migration.

Organized through three ‘scapes’—borderscapes, gamescapes, and landscapes—this chapter first addresses Appadurai’s theory (1990). Within this section will be an explanation of the theory of borderscapes, after which it addresses games as escapes or flights into virtual worlds far removed from the reality of its players. Gamescapes then become borderscapes through which those who inhabit the boundaries of the nation can produce, shape and rearrange the frontier. In the movement into the vicarious habitats of gamescapes, however, this chapter addresses the positioning of gamescaping as a process of colonial conquest. The framing of common spatializing practices in games as colonial conquest is inadequate for addressing the subaltern interactions with virtual worlds, and the decolonial possibilities that arise. Placed within their appropriate social contexts, gamescapes can be postcolonial playgrounds (Lammes, 2010) for those with limited to no agency over their geographies even in virtual worlds such as black subjects and migrants. Following the thread of ‘scaping’ will progress to the third ‘scape’—landscape—as conceptualized by scholars within the fields of black studies and postcolonial studies. Particularly important to landscape as a theoretical framework is the landscaping of the black body into and out of space and place as posited by McKittrick (2006). The final section will delineate Glissant’s (1996) poetics of landscape, as positioned by McKittrick, as black geographic agency that reclaims the right to space and place through expressive acts and dreaming up geographic

possibilities. *DOD: Errantry*, in its return to the geocorpography of the border, is thus an example of such acts of expression that reclaim black geographic agency.

Vectors of Borderscapes: Looking Beyond the Lines

Modelling global cultural flows, Appadurai (1990) devises a system of scapes that typify these movements and their disjunctures. Constituting these are the five dimensions of ethnoscapescapes, technoscapescapes, financescapescapes, mediascapescapes, and ideoscapescapes. Ethnoscapescapes are the interconnected global flows of people. This is exemplified by the increasing number of local workers looking beyond the closest metropolis in their countries to larger global cities such as London, Paris, and New York. Technologies migrate, alongside the circulation of people in the global landscape in an “odd distribution” (Appadurai, 1990, p.297), with large centers of production that draw interests from other countries. A contemporary example of this is digital technologies, mostly designed in Silicon Valley, California and distributed worldwide. Inextricably, technoscapescapes are linked to financescapescapes—the movement of the global capital. Disjunctures and unpredictability characterize these first three landscapes of global culture, which can independently oscillate. Mediascapescapes and ideoscapescapes—“the landscapes of images” (p.298)—are more closely linked. Mediascapescapes involve communication technologies and their content (news, music, film, video games, live streams, and so on). Within mediascapescapes, narratives are distributed, and meaning is produced. Ideoscapescapes, on the other hand, move deeper into meaning, circulating ideologies. An example of ideoscapescapes would be the rise of populism in global politics, that eschews humanitarian concerns for majoritarian interests (Roth, 2017). Pertinent to this chapter is the overarching theory of scapes, as suggested by Appadurai, that cement these flows and disjunctures within global culture. ‘Scapes’ as the suffix of the word landscape highlights the subjectivity—the “deeply perspectival constructs” (Appadurai,

1990, p.296)—of the cultural, technological, financial, and ideological landscapes within global flows. It considers the contextual nature, fluidity, and the irregularities of these landscapes. Sharing this pattern of fluidity and irregularity, borders can also be brought into Appadurai's five-dimensional scapes. As noted in the introduction to this chapter, national borders are increasingly difficult to differentiate, especially due to biometric technologies at arbitrary checkpoints that de- and re-territorialize these spaces. With borders being relational and constantly shifting, their explorations are often consolidated into an inquiry of 'the border'—a singular representation that highlights the relationality of national demarcations. The idea of borderscapes then becomes a necessary concept for interrogating these frontier zones. In this section, I lay out the alternative theories of borders to highlight the significance of the theory of borderscapes.

The globalization of capital that took place in the 1990s led to several theorists claiming the end of borders. One of these scholars often highlighted in critical border studies (Brambilla, 2015; Houtum et al., 2005), the Japanese organizational management consultant, Ohmae (1999) claimed "even nations themselves cannot dodge the threat of obsolescence" of borders (p.xiv). Ohmae's framing of the border must be placed within the rapid trend towards a global marketplace in the 1980s to 1990s, to be fully comprehended. The organizational theorist purports a borderless world in the context of a hyper-competitive global marketplace and increasingly interlinked economy. For the former Chief Economist of American Express, O'Brien (1992), the global market and the statement of a borderless world was a consequence of communications technologies that deterritorialized spaces like the New York Stock Exchange. These technologies announced "the end of geography," according to O'Brien (1992) as location and place were now obsolete. The auspicious declaration of the end

of borders or geography and its counterpoint of the revenge or persistence of geography (Kaplan, 2013) have been admonished by scholars in critical border studies such as Houtum et al. (2005) as counterproductive. Given the urgency for productive theories of frontiers, these theories of borderless worlds are a type of ‘cruel optimism’ (Berlant, 2011) that promote fantasies of borderlessness while these demarcations spread into unprecedented realms. These locative and dis-locative analyses fall into the ‘territorial trap’ or the geographical assumption of nation-states as fixed a priori “containers of society” (Agnew, 1994, p.59), thus obscuring the process of nation-building that marks the terrain of the state. “Territorialist imperatives” and their counterpoints, also noted by Brambilla (2015, p.18) conceal the violent spatializing practices that are performed in the continuous marking of the edges of the nation and boundary maintenance. Simply focusing on *the ‘where of the border’* in a traditional sense overshadows the shifting of the border and the production of new geographies of borderlands.

Houtum and Naerssen (2002), chart the progression of theories of the border from those that frame the border as a territorial object bound to national geographies to theories that focus on the spatial practices of ordering people and places into pre-designated spaces. This spatial practice is what Houtum and Naerssen define as ‘b/ordering’—it moves the analysis of national boundaries towards an understanding of the border as produced space. B/ordering is defined as the “exclusionary consequences of the securing and governing of the ‘own’ economic welfare and identity” (Houtum and Naerssen, 2002, p.125). De Certeau (1984, p.127) notes that the “theoretical and practical problem of the frontier [is] to whom does it belong?” Following this line of inquiry, Houtum and Naerssen (2002) also formulate b/ordering as an assertion of ownership. To b/order a nation is to engage in an “ongoing strategic effort to make a difference in space among the movements of people, money or products” (Houtum and

Naerssen, 2002, p.126). B/ordering involves the act of social sorting that relies on capturing, tagging and surveillance of movements in and out of the state in question (Lyon, 2003). This sorting of movement requires an ascription of mobility to certain identities included within the body of the state and an assertion of immobility to those that are excluded. Houtum and Naerssen, therefore delineate b/ordering practices into assigning of access, mobility and fixation, and sorting of migrants into several classifications such as business travellers, economic migrants, refugees, and asylum seekers.

Coterminous to this practice b/ordering is that of othering and ordering—including and excluding populations from the body of the nation (Ahmed, 2000), as detailed in the previous chapter. Houtum et al. (2005) also frame b/ordering as a form of landscaping, that designates “the lie of the land” (p.3), the self-image of the nation, or the signified idea of a given national border. For instance, Canadian scholars of colour such as Bannerji (2000), Walcott (2001), McKittrick (2006) and Browne (2010) have written extensively on the landscaping of the Canadian nation as white (Anglophone and Francophone) through racist and classist immigration policies even as the country promotes the image of Canadian multiculturalism, hospitality, and openness of borders. It is therefore pertinent when Houtum and Naerssen (2002) state that b/ordering practices must be “understood as an act of purification”—“the cleansing of the other that lives inside an imagined community” (p.126). B/ordering practices transcend the territorial boundaries of nation-states, regulating life within its zones of violence.

While the notion of b/ordering space (Houtum et al., 2005) has served a useful purpose by introducing the spatializing practice of the border to critical border studies, Brambilla (2015) takes this deconstruction of borders even further. If b/ordering practice is the securing and governing of the state’s ‘own,’ then, as Brambilla (2015)

notes, this theorization must address the “shifting and changing location” (p.19) of borders that transcend the state and its property. With biometric technologies moving borders into the most private of places—the body—the work of securing and governing the state moves into the bodies of migrants. As bodies move through, homes, offices, schools, churches, mosques and hospitals, the scholars must step back from reading the border simply from the hegemonic position of state property to address the annexation of and thing-ification of migrant bodies. Here the notion of ‘borderscapes’ becomes invaluable, as it makes space for the bodies that have become “carriers of the national border” (Amoore, 2006, p.348), accentuating what these bodies do in these borderlands, and how they reshape these zones. To address the borderscape, therefore, is to address multiple spatializing practices that produce the border.

According to dell’Agnese and Amilhat Szary (2015), the notion of borderscapes has become *de rigueur* in art and academia. Tracking three common deployments of the term, dell’Agnese and Amilhat Szary highlight the multiple conceptualizations of borderscapes. The first formulation of borderscapes is that of the physical geography of borders. Within the stated notion, borderscapes are synonymous to the geographic landscape that mark national boundaries. These include the landmarks, rivers or seas, and the topographic character of the border. The second theorization of borderscapes focuses on border landscapes. In this iteration, borderscapes are an aesthetic practice of image-making. This is derived from the positioning of landscape as a signifying or representational space. Here the word ‘landscape’ takes its literal form as to landscape a garden or city park. The image of the geographic border is its main point of focus. It stresses the look of the border over all other topics. These first two conceptualizations are analogous to the territorial understanding of the border. As discussed above, while

the geographic nature of the border holds relevance, it becomes a curmudgeon when scholars do not analyze beyond *the 'where' of the border*.

The third formulation of borderscapes is the closest understanding adopted in this chapter. dell'Agnese and Amilhat Szary (2015) state this within their analysis of the art practice of Gómez-Peña and Sifuentes (1999). Within the work of the artists, borderscapes are theoretical inasmuch as they are practical. Gómez-Peña and Sifuentes (1999) create these borderscapes in performance art as a dissolution of boundaries across countries, cultures, languages, and genders. Under the collective name La Pocha Nostra, the artists facilitate interactive live performances that mix religious themes such as confessions with a host of political, sexual, technological, and animist subjects to create a tableau of border creatures. As this performance is continuously staged and developed, no single La Pocha Nostra tableau is the same. The borderscape within this work is re-produced in each tableau, expressing the fluidity of these heterotopic zones. More relevant to *Animating Opacity* is the centralization of border creatures with agency in the artists' work (La Pocha Nostra, 2012). Their various actions and stillnesses shapes this zone. It is in this shaping of the frontier lands that the theory of borderscapes has value. As addressed earlier, discussions of borders centralize state actions, while overlooking the various ways in which the people who constitute the spaces of the border shape this space.

Brambilla (2015) and Houtum, Velde, and Jacobs (2010) both emphasize the meaning of the suffix '-scape' as 'to shape.' As Brambilla contextualizes it, the "landscape is 'the land 'scaped,' or 'shaped'" (Brambilla, 2015, p.23). Therefore, the border scaped is the border shaped. Taking this argument to its logical conclusion then, the border is pliable to acts of reshaping and re-scaping. Therefore, for Brambilla borderscapes can be hegemonic sites, that enact the border as legal fact based on

national policies, or counter-hegemonic sites that resist the dominant borderscape. Extrapolating her theorization of borderscapes, Brambilla emphasizes the borderscapes in fostering “a new ‘multi-sited’ organization of border knowledge” (Brambilla, 2015, p.24). This epistemology of the border includes traditional methods of knowing (archival research and textual analysis) as well as art practices, experiences and representations that humanize the border as a space shaped, inhabited and interpreted by border creatures (p.27). This conceptualization of the border serves as an overarching framework as, stated in previous chapters, the creation of the border is a practice of inscription, it is digitized through algorithmic capture, and corporealized into the body of migrants who sense it on several levels.

Borders are multifaceted ever-shifting spaces. Approaching them at their points of cohesion and paradox—at their point of location and dis-location—facilitates a better understanding of their functions and effects, and the various means through which they can be subverted and changed. Consequently, *the ‘where’ of the border* transforms to *the ‘how’ of the border*. How borders can be produced, shaped and shifted will be addressed in the following section, focusing on the creation of worlds through participation and action in video games. This discussion of agency in and the production of gamescapes will then be expounded to interrogate who is excluded from shaping the land.

Problematics of Gamescapes: New World Discovery in Postcolonial Playgrounds

Videogames provide an ideal environment to study the production of space. Produced by “space makers” (Holtzman, 1994, p.210) of virtual worlds, they are then inhabited by avatars that signify some aspect of the identity of their players (Nakamura, 2008). The relationship between videogames and spatiality are multitudinous. For

instance, a template provided on Unreal Engine, the gaming engine I used in creating *DOD: Errantry* (2018), offers architectural visualizations in virtual reality often used in interior design. Crucial to the creation of a game in Unreal Engine is the creation of maps using the landscape editor. In 3D game design, the map is the surface over which characters can walk. Without setting the map in Unreal Engine, characters plummet through the never-ending sky of the engine. The map literally keeps the game characters grounded. As Fuller and Jenkins (1995) highlight, video games are not necessarily played for the narratives they offer, but for the spaces they immerse the player into. As Mario swims through water levels, jumps through flame-rigged dungeons, hops across beautiful, puffy clouds, the player is too preoccupied with survival to bother about why a plumber's life is so magical or how much psychological support a post-traumatic Princess Peach, when she is finally (if ever) rescued, would need. Aarseth (2000, p.154) claims that the "defining element in computer games is spatiality," as computer games focus on the representations and negotiations of space. Narratives, for Aarseth, are supplementary to gameplay¹⁶. Computer games are divided into two spatial representations, that of "open landscapes" that offer freedom to explore the environment, and that of "closed labyrinths" that linearize mobility throughout the game by placing invisible walls in strategic zones (Aarseth, 2000, p.159). They are outdoor games and indoor games.

Landscape is conjured once more—this time in a virtual world made for entertainment. 'Scaping,' therefore, comes into play as well as in Magnet's conception of gamescape as "an imagined landscape for cooped-up children, an escapist landscape

¹⁶ Narrative versus gameplay is a highly debated topic in games studies; therefore, it is beyond the scope of this chapter. For more information see Frasca (1999).

for bored adults, and, all too frequently, a landscape of colonization for players who would be kings” (2006, p.142). Gamescape is a matter of interpretation, as, for a person who is denied mobility in the physical world, gamescape becomes an imagined landscape where they can roam as freely as they choose. For a person who has freedom of mobility in the physical world but for any given reason, is unsatisfied with the shortcomings of this physical world they have the agency to explore, gamescape becomes an escape from reality. For those who wish to move beyond imaginative exploration and escape from reality, gamescape offers a vast land to be appropriated and shaped. This latter interpretation of gamescape is similar to the argument made by Fuller and Jenkins (1995) that videogames repeat the tropes of New World discovery rampant in colonial narratives. The influence of Fuller and Jenkins (1995) is notable in game studies as other scholars such as Friedman (1999) and Newman (2004) echo their positioning of video games as spatial stories. Borrowed from De Certeau (1984), videogames as spatial stories link back to the use of maps and tours as geographic narratives in gaming. Video games such as *Sid Meier’s Civilization II* (Meier and MicroProse Software, 1996) and *SimCity* (Maxis, 1989) as addressed in Friedman (1999) and *Tropico* (PopTop Software and Gathering of Developers, 2001) as examined by Magnet (2006), “colonize space” (De Certeau, 1984, p.121) through their acts of mapping and their scoping practices of gazing from a god’s eye view. For Magnet (2006) this colonization through mapping is inextricable from the violence of landscaping that occurs in these geographic strategy games. Beyond the theme of agency in gamescapes as colonization, is that of imperialist capitalism (Dyer-Witheford and de Peuter, 2009) typified by the game *Grand Theft Auto V (GTA V)* (Rockstar Games, 2013). This game, set in fictive versions of American cities such as Miami and Los Angeles, focuses on the story of achieving the American Dream, using the rags-to-

riches trope prevalent in Hood films characterized by the filmography of the American director, John Singleton. *GTA V*, a game created by white British men, focuses on the stories of black characters and migrants as they master their landscapes and become successful criminals. In accordance with De Certeau's (1984) distinction between the map and tour, the personalized nature of *GTA V* offers a tour, in contrast to the abstract nature of strategy games such as *Tropico* that occur on the level of a large-scale map. This tour of the life of a black American or life as a migrant in America is set in the gamescape of imperialist capitalism. It is a tour that is commonly experienced, paraphrasing Nakamura (2002, p.57), nonreflexively as form of identity tourism.

Games are not exclusively performances of colonial and imperial appropriations of space. Responding to writers such as Friedman (1999), who interpret gaming as colonial conquest, Lammes (2010) formulates gaming as "postcolonial playgrounds *par excellence*" (p.1), as the writer claims that even in games such as *Sid Meier's Civilization*, the act of colonization is interrupted by the fact that the player's appropriation of land occurs in an alternate, (albeit virtual) reality. For Lammes (2010), the temporality and social context of colonization in gaming—its positioning after the fact of colonization—revises colonial legacies. These postcolonial playgrounds are illustrated in games such as *The Night of Bush Capturing: A Virtual Jihadi* (Bilal, 2008), a game set in Iraq and developed by Iraqi-born artist, Wafaa Bilal. Such games set in postcolonial playgrounds frequently position gameplay from the standpoint of the subaltern. In Bilal's game, the player character is a Muslim fighter, as opposed to the all-American super soldier commonly embodied in AAA games. In line with Galloway's (2006, p.84) statement, addressing postcolonial reflects that "videogames absolutely cannot be excised from the social contexts in which they are played." Within postcolonial playgrounds or gamescapes, the "hybridisation of spatial relations" take

effect as the legacy of colonial conquest is simultaneously re-lived and transformed (Lammes, 2010, p.4). Therefore, for every act of digital gentrification and spatial appropriation that occurs in virtual zones are reclamations of gamescapes by those with limited agency and mobility in the physical world. If interpreting a game, as Galloway (2006, p.91) writes, is understanding its algorithms and parallel allegories, then inhabiting and transforming colonial gamescape is understanding the algorithms of colonization and its parallels.

An inspiration for *DOD: Errantry*, Ubisoft's (2016) *WATCH_DOGS 2*, offers an apt example of the production of parallel, postcolonial gamescapes. This open-world adventure game immerses players into the life of the black hacker, Marcus Holloway as he attempts to topple the 'algorithmic colonialism' (McQuillan, 2016) of the private technology giant, Blume. Marcus's daily interactions in the gamescape are those of the "ordinary practitioner of the city" (De Certeau, 1984, p.93), as he explores the urban landscape, turned smart city. Marcus' interactions elevate him to the status of "voyeur-god" (De Certeau, 1984, p.93), only through his access to Blume's smart city (ctOS) servers. With this access—and a glance or tap on his phone—Marcus can explode manholes, hack into ATMs, steal or give money to unsuspecting victims, read the private messages on any given mobile phone in San Francisco and change the criminal profile of anyone, including himself (Ubisoft, 2016). Although race is never addressed, several features of the game lend to a reading of Marcus's spatializing practices as those of dark sousveillance and opacity (Browne, 2015), instead of colonization and imperialist capitalism. If sousveillance is "watching from below" (Mann, Nolan, and Wellman, 2003, p.332), following Browne's conceptualization, dark sousveillance is appropriation and repurposing of anti-black surveillance technologies for survival and escape (Browne, 2015, p.21). The introductory mission of *WATCH_DOGS 2* best

illustrates the spatializing practice of dark sousveillance as Marcus breaks into the ctOS database to find that he had a high threat probability of 82% even though his criminal record only included two arrests on loitering with intent and breaking and entering, with some suspicious web activity and purchases. This moment is also one of a few when Marcus's race is evidently acknowledged, as, on the screen where he is designated as high risk for criminal activity, his race is stated as "African-American/Black." Marcus deletes the criminal and biometric records in his ctOS profile enacting his flight from the smart city surveillance system.



Figure 15. A screengrab of Marcus watching himself from a street surveillance camera. To hack into surveillance cameras and networked machines, Marcus sits on pavements, in parks, and sometimes on large cranes. This absurd game mechanic becomes a reclamation of the city as a hackerspace.



Figure 16. A screenshot of Marcus sitting at a street intersection. Built into the game are ‘ScoutX’ virtual tours of the city that encourage players to explore Ubisoft’s interpretation of San Francisco. This image is taken in the virtualized gay village, the Castro District in San Francisco.

More pertinent to escaping from surveillance is Marcus’s spatializing practice. As the surveillance cameras fail to recognize his face, due to the deletion of his profile and the mask he wears, he has increased mobility. Often mobility reaches a level of absurdity as is wont of open-world games as shown in Figures 15 and 16, but as a black man in America whose *erratic* movement would most likely be met with violence (Cadogan, 2016), Marcus’ appropriation of his landscape is a subversive spatializing practice. In addition, biometric failure that aides his mobility can also be read as the failure of the facial recognition camera to identify the face of a black biometric subject, as these systems are prone to (Blas, 2014; Buolamwini, 2016; and Magnet, 2011). A similar mechanic is repeated in *DOD: Errantry* as players are tasked with the objective of returning to the biometric database, which they are corporeally linked to, as is shown through their teleportation through light in *DOD*. At the biometric database, they perform exploits that disrupt their biometric capture, thus performing an escape from

border surveillance (see Figures 17 and 18). This equips them with absurd mobility, similar to Marcus, where they can transform the border to a hackerspace and retrieve their friend, the aforementioned African man, named Boma. Just as Marcus Holloway repurposes the *errors* or *errantries*¹⁷ (Glissant, 1997a) of the biometric capture for black escape and survival, so does *DOD: Errantry*. From the design of the game map to the very act of exploration and walking that define the game mechanics, *DOD: Errantry* encourages black mobility through dark sousveillance. Players are not asked to empathize with Boma or investigate why he has been held at the border. They are essentially asked to perform their resistance within border through their movements in the space.

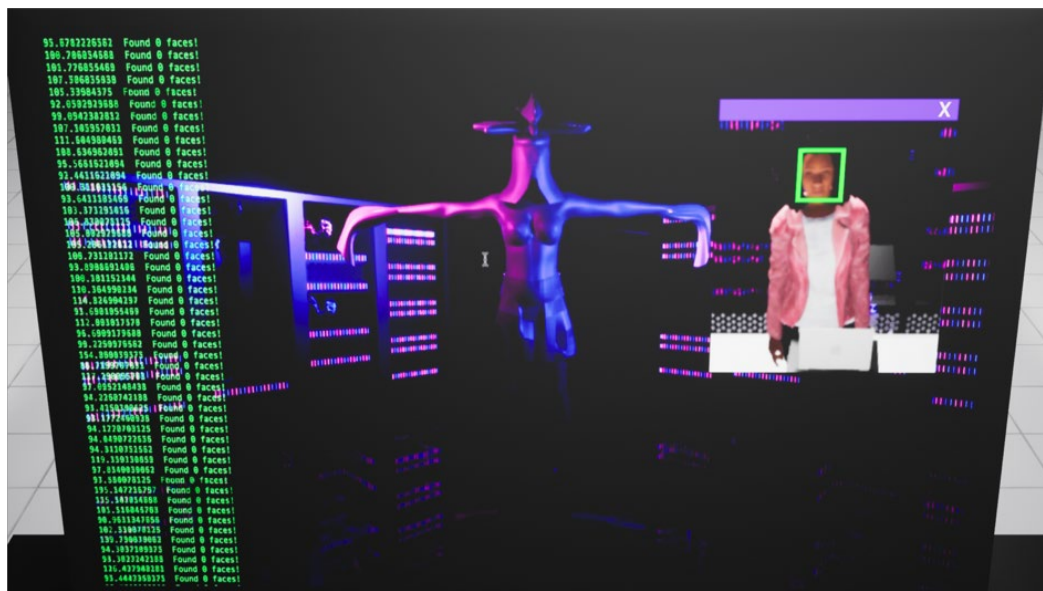


Figure 17. A screengrab of the laptop at the biometric checkpoint in *DOD: Errantry*. The image shows the facial recognition camera's output, "Found 0 faces!" The data shown on the laptop is extracted from my actual attempts to use OpenCV (Patil, 2017) for face tracking. This application failed to consistently track my face. While there might have been a bug in the code I sourced from Patil (2017), or the room might have

¹⁷ In the chapter on biometric capture, I conceptualise biometric failure as errantry in the same manner Glissant (1997a) conceives creole languages. These "series of forgettings" or err/ors (Glissant, 1997a, p.69) reformulate biometric failure as a form of computational creole that enact practices of dark sousveillance.

been poorly lit, there is also a possibility that I might have encountered the same problem Buolamwini (2016) met using open-source facial recognition applications poorly trained for dark-skinned people.



Figure 18. A screenshot of the third level of *DOD: Errantry*. When the player finds Boma, they sit in front of the glass door where he is held and deploy a biometric exploit that assists his escape from the border.



Figure 19. A screenshot of the final level of *DOD: Errantry*. Reminiscent of Nigerian bukkas, communal spaces that serve as pubs, pool house, and diner, this space in the gameworld is re-imagined out of the Nigerian geography into a virtualized borderspace.

Poetics of Landscape: Black Geo(corpo)graphies of Resistance

In her groundbreaking body of work on black geography, McKittrick (2006) analyzes the territorialization of black womanhood from the poetry of Marlene Nourbese Phillip, to rhetoric of geography in black feminist thought, and to the life of a Portuguese-born slave, Marie-Joseph Angélique. Black women's bodies, according to McKittrick, are territorialized as New Worlds, open for discovery. This territorialization is racial-sexual as the violence of colonial conquest, following Philips (1997) in her book *A Genealogy of Resistance: And Other Essays*, takes place in the space between the legs. The space between the legs is a space of colonial conquest. According to McKittrick (2006, p.44) geographies of transatlantic slavery, "such as the slave ship, the auction block, slave coffles, and the plantation are just some sites that spatialized domination under bondage." As the black body, paraphrasing McKittrick (2006), is commoditized as quantifiable sites of wealth, and black women's bodies are reduced to facilities of reproduction, the spatializing practices of chattel slavery and colonial conquest, shows "how bodily geography can be" (p.44). The 'where' of these sites of domination are reproduced in borderscapes where black women are abused in detention centers such as Yarl's Wood Immigration Removal Center (Fenton, 2016), in airport boarding zones where the opacity of black women's bodies is undone with routine hair searches (Browne, 2015), and within biometric capture rooms where private agents impel black bodies to reenact the violent choreography of the police state, as illustrated in *DOD* (Fubara-Manuel, 2018a). Black feminist thought for McKittrick also spatializes black femininity. However, this relation to space places black femininity outside of the margins. McKittrick urges against the spatialization of black femininity in the academic discourses of margins and outsiders. The writer states:

The margin is therefore not a legitimate area of deep social or geographic inquiry—it is a site of dispossession, it is an ungeographic space, it is all too often a fleeting academic utterance and therefore easy to empty out, ignore, and add on in times of multicultural crises" (McKittrick, 2006, p.58).

The politics of citation and sitation of black femininity in the margins spatialize it outside of geography, obscuring the practices of black feminine subjects as geographic subjects who reorganize the plantation, the slave ship, the home, the landscape, the nation and other zones where blackness resides. McKittrick gives an account of Marie-Joseph Angélique, a Portuguese-born slave sold to settlers of New France (Canada). Tracing Marie-Joseph Angélique's life leads to a history of black slavery in Canada. McKittrick highlights the reduction of black bodies to landscape—as 'sight' or image of a black slave on the premises signified wealth in Montreal. Furthermore, tracing Marie-Joseph Angélique's place in Canadian history leads to other sites of contestation for the fact that national discourse places the country as a haven for black slaves fleeing America. Therefore, rumoured to have set fire to the house of her mistress alongside some other homes in Montreal, the life (and death by hanging) of Marie-Joseph Angélique re-sites Canada as a space of black domination, thus re-mapping "the "who" and "where" and "how" of race" in the country (McKittrick, 2006, p.119). For this reason, McKittrick states that Marie-Joseph Angélique, through her captivity and alleged arson, "participated in the production of space" (p.115), an exemplification of the poetics of landscape that exert black geographic subjecthood through expressive acts of spatialization.

The poetics of landscape underscores that black subjects are removed from their geography in multiple spatializing practices. Glissant (1996) highlights this, stating that the Caribbean landscape due to the presence of Dutch, English, Spanish, Portuguese colonizers had made the indigenous populations strangers to each other and their land.

This is one of the ways people are alienated from their land, and their landscape becomes endangered. Glissant states that landscape must be elevated from simple decorative imagery—description is not enough (p.105). The landscape must be traced by knowing its history—“Landscape is a character in this process [of creating history]. Its deepest meanings need to be understood” (Glissant, 1996, p.106). Glissant's (1996) prioritization of the landscape links back to De Certeau's (1984, p.93) “ordinary practitioner,” as these people are the walkers, drifters, and flâneurs with indispensable spatial knowledge. These geographic subjects link the inhabitants of the landscape to their environments. Within the virtual worlds presented in *DOD: Errantry*, walking through the border then becomes a re-spatializing practice that links black migrants as producers and geographic agents within borderscapes. Carbo-Mascarell (2016) defines walking simulators “as games with an immersive use of exploration as a core mechanic utilized for environmental storytelling purposes” (p.2). Walking through gamescape, to paraphrase Carbo-Mascarell helps uncover the theory and affect found in the landscape of a game (p.2). What theories and affects can be found in *DOD: Errantry*? —theories of geographic agency and the affect of empowerment. As one player communicated to me, “I just walked right through the border!”

To beat *DOD: Errantry* and teleport to the final level pictured in Figure 19, players must unlearn the spatial practices they would execute at the physical border. Joining the queue to speak to a border agent will have the player character trapped in the border. This move will require the player to wait endlessly until they restart the game. As players must explore the border to find where Boma is held, traditional modes of traversing through the border are counterproductive. To aid the player's movement throughout the border, trickster tokens—an in-game point system/currency—are littered across the border. These tokens act as way-finders, tracing a mapped-out trajectory that

the player must follow to complete the mission. To ensure that gameplay does not recreate the hegemonic spatializing practices, *DOD: Errantry* offers alternatives for movement through the border by way of the e-Passport machines. As discussed in the chapter on biometric capture, these machines are not accessible to those who would be regulated to the “other passport” zone such as the player character. Moving through the zone, however, signals a warning that the player is leaving their objective or heading into a dead-zone. *DOD: Errantry*’s dead-zone is an empty space in the border, with no guards and only a few non-player characters moving around. It is designed without trickster tokens as there are only two options—back the way you came from or forward into the unknown. Using this route, quite slow and tedious, directs the player to the place where Boma is being held.

The empty route, mapped out by curious players, highlights the power of mobility in shaping a space. As players found ways to beat the level without using the obvious trajectories set out for them, they had found a way to beat the level by setting off the invisible triggers hidden in the dead-zone that advanced the game to the next level. I had not foreseen the alternative spatializing practice. My first thought was to fix the obvious bug, but after much contemplation, I realized that the re-spatialization of the border in *DOD: Errantry* was symbolic of the ways through which migrants chart novel movements through the border outside of the imperialist gaze of state surveillance. In these moments, players were truly reproducing the gamescape and borderscape from their own unique positionality as geographic subjects within this virtual world. Their knowledge of the world through their mobility in the gamespace created ways through which they could transcend the rules written into this zone and thus transcend the virtual frontier. The shared knowledge became grounds on which players built solidarity as those who had beat the game would show others the backchannel. Solidarity here

harkens to biometric solidarity as discussed in Chapter 2, building on Browne's (2015) formulation of critical biometric consciousness. As stated, in the previous chapter, biometric solidarity is a form of collective action that subverts biometric surveillance. Thereby, in returning to the border, triggering moments of biometric failure, and charting new routes through the border, the gamescape within *DOD: Errantry* offers a testing ground in which migrants formulate their escape from biometric surveillance and the constrictions of the border.

The introduction of this chapter described my motivations for creating *DOD: Errantry*. I believed it was necessary to return to the virtual border I had created in an attempt to break the loop of the detention for Boma. What became apparent as I began to plot Boma's escape was that as I write on my experiences shaping the borderscape and represent them in my art practices, I re-live these moments. In some of these moments when I move back into the spaces I have addressed in *Animating Opacity*, I feel the anxiety and fear from the original experience. Every time I read the introduction to this chapter, I travel back into that midnight and feel my heart constrict as I wonder about the basis for the appraisal for my brother's worth. What makes a person a worthy migrant, a worthy addition into the fold of the nation? As have been addressed in the previous chapter the question of value only results in division as people are violently expelled from the nation to make room for worthy migrants, who live under constant surveillance to monitor that they stay in line with the worth through which they are appraised. Therefore, following Galloway's (2006, p.15) statement that "play is a symbolic action for larger issues in the culture," my motivation for gamifying border crossings and biometric failure is to build solidarity amongst migrants. To create spaces in which we can all plot our escape from capture, enact dark sousveillance against the imperialist surveillant gaze and claim our right to opacity for every one of us (Glissant,

1997a, p.189). As most of the people, who have played *DOD: Errantry* so far have been black, queer, migrants (because I have actively attempted to offer this work to people who have a stake in the issue) I must quote Audre Lorde's (1988, p.130) statement as a closing sentence: "If one Black [person] I do not know gains hope and strength from my story, then it has been worth the difficulty of telling."

Conclusion: On the Dream of Disguise and the Right to Opacity

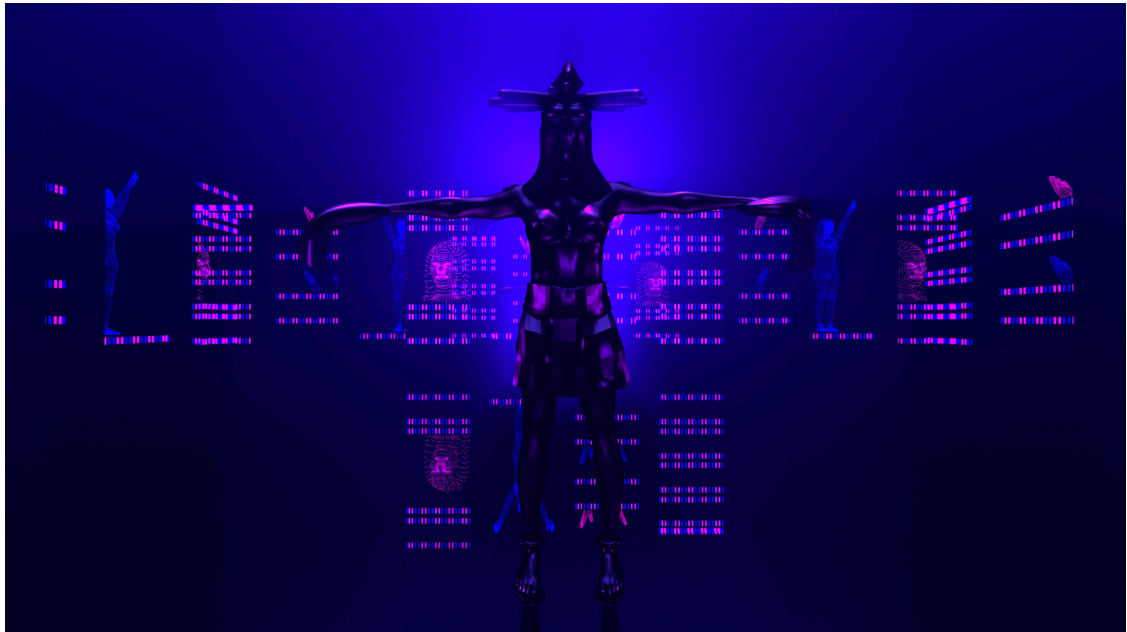


Figure 20. The trickster surrounded by data servers.

A Kalabari masquerade in a data center with digitized sections of the body of the lead character from *Dreams of Disguise*.

I titled the launch event for my September 2018 exhibition (see Appendix A.3) of the work I have presented in *Animating Opacity*, “Melanin so high, opacity” from the lyrics of the song titled *Me* by an American artist called Junglepussy (2015). In the song, the rapper of Trinidadian and Jamaican heritage talks about self-care in a style that gives an ode to the queer black feminist thought from Audre Lorde. The lyrics go, “hair defying gravity— melanin so high opacity.” Opacity for the rapper is not simply a Glissantian theoretical concept of the colonial imposition of classification, simplification and surveillance of indigenous populations. It is an affirmation of her blackness. It a similar affirmation when we say black lives matter or that black is beautiful and that we are black and proud. Within *Animating Opacity*, chapters are filled with the violence of the dissecting colonial gaze, looking through the archives of

biometric technologies, the linguistic grammars of action through which they capture and order black migrant life, the sensory and affective economies they incite and new spaces they create. Returning to the aim of the study, to interrogate the lived experience of surveillance and the practices (and possibilities) of opacity, it becomes evident that resistances and subversions of biometric technologies of surveillance are necessary for survival as a migrant—particularly as a migrant of colour. The right to opacity (Glissant, 1997a, p.189) is, therefore, an affirmation that, though black and migrant populations live under the imperative of identification and transparency, they must have the right to actuate their dreams of disguise (Raqs Media Collective, 2005, p.163). This dream of disguise is symbolized by the trickster (see Figure 20) in all the artistic interventions in *Animating Opacity*.

During the September exhibition, a gallery visitor asked me what *Dreams of Disguise* and *Animating Opacity* as a whole means to me. What this project means to me is that migration is not a crime. As echoed in the poetry of Akila Richards (2018) and the performative paper given by Imani Robinson (2018) at the launch event for *DOD*, freedom of movement is not a privilege assigned to those with the right passports or skin tones. The hypersurveillance and monitoring of migrants—especially migrants of colour—is an act of violence that we as migrants have the right to subvert and protest. Thus, the discussion of opacity within in the previous chapters and practices has led to a discovery of the necessity of other rights. These are:

1. The right to critical biometric knowledge, which engenders a critical biometric consciousness. People must know the histories of the technologies that dictate their mobility. Migrants must also know how their data is captured, stored and used for or against them. The right to critical biometric consciousness includes the right to protect oneself, whether by encrypting one's own biometric data through body hacking. Governments and companies should not be the only ones that can assert

the truth of identity. If migrants can find ways to encrypt their biometric data, then they should be allowed.

2. The right to civil protest of biometric capture, and in moments when this right is abused, the right to protect and assert agency over one's data life with computational creole (that is: triggering deliberate biometric failure).
3. The right to disrupt the affective economy of the surveillance state, which uses fear and feelings of belonging to mark those bodies for hypersurveillance. The right to be heard at the border and the right to silence or disengagement.
4. The right to create digital spaces out of the reach of agencies of surveillance to build biometric solidarity.

If our movements are governed by biometrics, we must have the right to criticize and change these technologies.

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Appendix A

A.1 *Border Ritual* Installation at Hastings Art Forum 2016



A photograph of the zoetrope installation—a room divider, textured carpet and a tree.



A television playing the *Border Ritual* documentation video.



An installation image showing the Boko (Door) non-photo pencil drawing on tracing paper.



A photograph of the animation cels of the Owu (Masquerade) on tracing paper.

A.2 Code Liberation's Group Show during London Design Week (Digital Design Weekend), 2017

London Design Week, Digital Design Weekend Exhibition at the V&A

Posted on August 01, 2018 by Phoenix Perry & filed under News.

Code Liberation worked in collaboration with the Processing Foundation, the V&A, Machines Room and Goldsmiths to run a series of eight workshops that resulted in an exhibition of new games created during these workshops. For the workshop we also created teaching resources for p5.js which include slides and sample code anyone can use for free to teach p5.js.

[Download the workshop series.](#)



Saskia Freeke was the lead instructor on this program as part of her residency with the Processing Foundation.

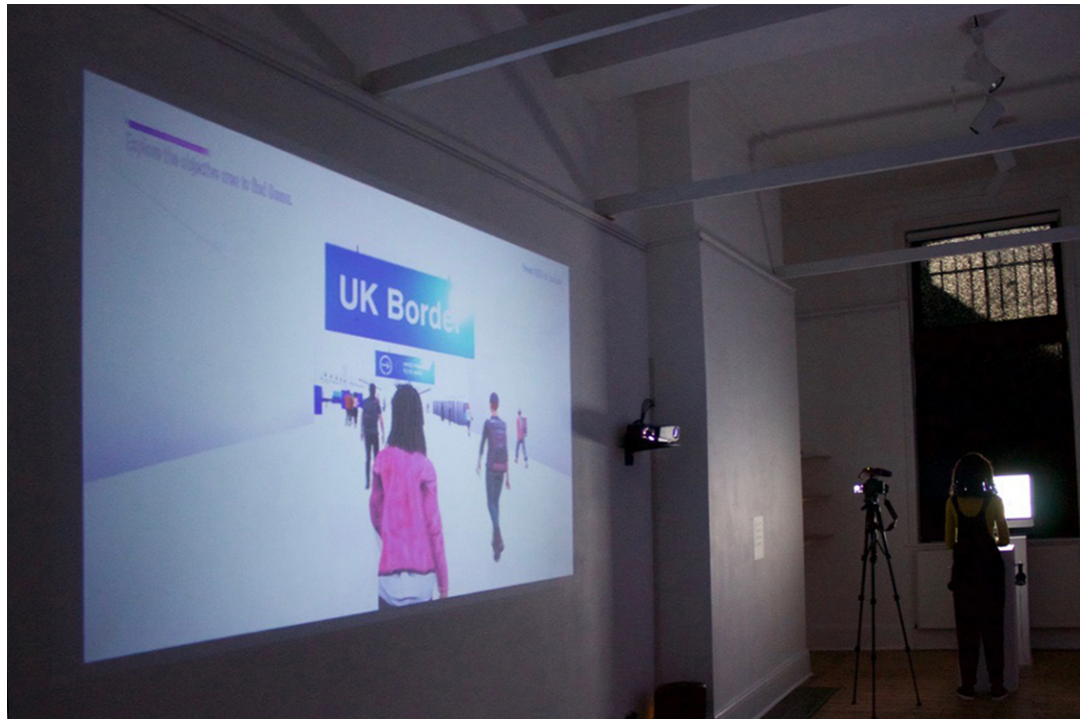
Games Creators Exhibited

- Nontokozi F. Sihwa
- Tokini Irene Fubara
- Mimi Sotudeh
- Katherine Reid
- Laura Cugusi
- Mandy Saunders
- Natasha Trotman
- Lorna Hamilton-Brown

A screengrab of Code Liberation's blog about the exhibition.

Source: http://codeliberation.org/news/2018/08/01/V&A_LDN_DesignWeek.html

A.3 *Dreams of Disguise* Exhibition at ONCA Gallery 2018



Guest interaction at *Dreams of Disguise*.



Wide-angle image showing the first-floor installation of *Dreams of Disguise*.



A 3D Print of the ErrantBox game controller used for *Dreams of Disguise: Errantry*. The design for this controller came from the colonial era British Nigerian passport. As a game controller, it sends the input from the player to the computer, directing the movements of the player character. As *Dreams of Disguise* is a mission to reclaim the border, this re-mediation of the British Nigerian passport/ErrantBox asserts migrant agency in response to the colonial power over black mobility.



The video documentation of *Border Ritual* set by the door of the entry door of the first floor.



A wide view of the lower level installation.



A 3D print of ErrantBox Lite Controlla for *Border Ritual 2.0*.



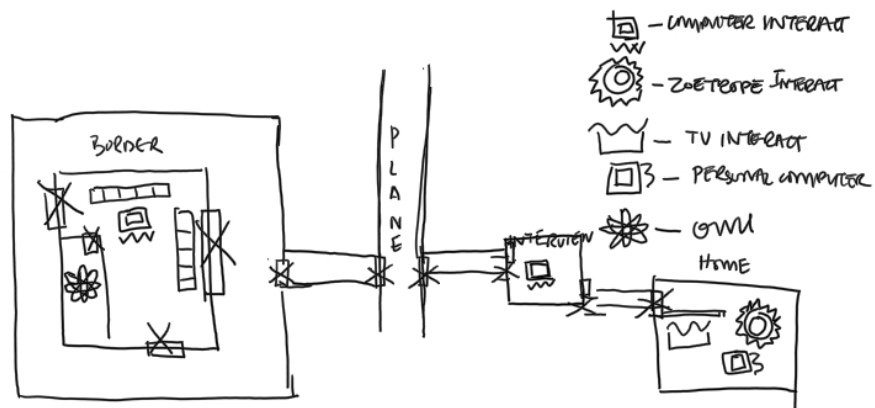
A guest interacting with the *Border Ritual 2.0* video game.

Appendix B

B.1 Ideation Process Documentation



A rendering of the concept design for the ErrantBox Controlla.



Process documentation of my plan for the *Dreams of Disguise: Errantry* game map. This image shows a connection of (from the left to right)—the border, the plane, the biometric interview, and the home scenes.

B.2 Dreams of Disguise Exhibition Paraphernalia

This project is part of my Doctoral Thesis on migration, surveillance technologies (especially biometric technologies) and their histories and contemporary applications. It is auto ethnographic in the sense that I document my experiences at the border. Over the past three years I have not only documented my experience with border agents but also my interactions with the technologies that capture and verify my identity in migration.

Border Ritual, playing on the TV, is a re-enactment of my interview with the border agent on my return from a holiday trip to France with my partner. The subtext behind that work is indeed queer family separation, as the entire period in which that interview was taking place Leslie had already crossed over looking at me as I answered yes to each question. The interview was quite interesting as the border agent looked through my passport that was filled with visas and began to question my trajectory from Canada to the UK. The looping behind the interrogation is comedic and stylized in the sense that the border agent repeatedly asked me the same question in the manner of a malfunctioning android. She ends with a joke "going around the world collecting degrees?" to defuse the tension of her disbelief in the interrogation but also of my apparent annoyance with her repetition.

Dreams of Disguise is a more recent project from my visa application to Canada and the trip that followed that application. During my application process, I was nervous and started to put my hand in my pocket at which point the biometric interviewee yelled at me to raise my hands up and remove my hand from my pocket. I found this interesting as these biometric technologies are seen to be innovative equipment that aide a colour blind process of data collection, yet in this moment I was being policed as a black woman by another private citizen with no ties to the government except for the fact that he works for a private visa application agency. The cameras we see in the games and the video projection are based off the MFlow cameras which project light in an invasive manner at the Gatwick airport for facial recognition. Facial recognition technology in my research is quite problematic not only for the fact that the algorithms are tested on white lab technicians thus they to identify people with darker skin tones but also for the fact that the London Metropolitan Police over the last few years have been trying real time facial recognition in policing but only at the Notting Hill Carnival which tends to bring in a high number of black migrant audiences.

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DREAMS OF DISGUISE

First Floor

Border Ritual (2016)

Video, 4 minutes

This video is a documentation of the 2016 installation of a zoëtrope revolving on a vinyl recording of the artist's re-enactment of her border interview. This interview is set to the chorus of "Sawale," a popular Nigerian highlife song by Cardinal Rex Lawson about a hypermobile woman.

Dreams of Disguise

Video projection, 6 minutes

Based on real events during the artist's visa application process and return from her trip to Canada, *Dreams of Disguise* is a traversal of the border through biometric technologies and their databases. It re-presents real moments of policing and racialized violence the artist experienced or witnessed during this process.

Dreams of Disguise: Errantry

Video game, 10 minutes

An expansion of the 6-minute video loop this video game returns to the border to intervene on the detention of a black migrant by an armed guard. As a 'walking simulation', this game takes on the pejorative term in games media and subverts it as digital drift that calls on players to relish moments of joy and agency in its gameplay.

ErrantBox Controlla

3D printed object

Modelled from the first iteration of the Nigerian passport, a 1940s British Passport issued in the colonies, this controller hacks this design to grant movement and action to the player character. As a fabricated object, this controller emphasizes the fabrication of passports and visas as biometric hardware for the virtual border.

Ground Floor Captions

Border Ritual 2.0

6 channel video game installation

Set to a musical sample of 'Weary' by Solange, with the lyrics "I'm gonna look for my body, yeah. I'll be back real soon", this game features a moment of biometric failure that requires avoiding scanned copies of the character's body while collecting trickster tokens.

Border Spirit/Trickster

45x64cm lightbox

Each piece in DREAMS OF DISGUISE features the symbol of a Kalabari masquerade or 'Owu' (translated to 'water spirit'). A Niger Deltan cultural artefact and sacred object, the Owu is linked to temporal borders (yearly cycles) and spatial boundaries (water and land). Performed a person in disguise as a spirit, the artist has redesigned the Owu for the digital era as a trickster figure, a border spirit, and symbol of disguise.

ErrantBox Lite Controlla

3D printed object

See *ErrantBox Controlla* above.

Irene Fubara Manuel (b. 1991 Port-Harcourt, Nigeria) is a Brighton-based artist working in animation, games media, and installation art. She is currently concluding her doctorate at the University of Sussex in Creative and Critical Practice on the colonial project of biometric surveillance and its contemporary applications in migration. Her most recent works are *I'm New Here* (2015), an animated documentary series following three queer African migrants in the Canadian prairie city, Winnipeg; *Border Ritual* (2016) an installation piece in which the artist first experiments with the Niger Deltan Kalabari masquerade a border intervention/creature, and *Border Ritual 2.0* (2017), a video game expansion of this intervention at the UK border created as part of a six-week workshop with Code Liberation at the Victoria and Albert Museum. Irene also writes on race and sexuality in pop culture as in her co-authored book, *Killing Off the Lesbians : A Symbolic Annihilation on Film and Television* with Dr. Liz Millward and Dr. Janice Dodd.

The imperative of identification, and its counterpoint, the dream of disguise, are impulses we find as central to the story of our times.

— Raqs Media Collective (2005)

DREAMS OF DISGUISE is a traversal of the virtual border through racialized biometric technologies. In its depiction of the trancelike out-of-body/embodyed moments of biometric interaction in the border, it blurs documentary truth with science fiction, to reveal the ubiquitous surveillance of migrants and the rising desire for opacity. Each piece expresses the dream of disguise within the symbol of a Kalabari masquerade or 'Owu' (translated to 'water spirit'). A Niger Deltan cultural product, the Owu is linked to temporal borders (yearly cycles) and spatial boundaries (water and land). However, the spirit is performed by a person in disguise. Redesigned for the digital era as a trickster figure, the Owu becomes a symbol of opacity and disguise. Building from the artist's real experiences at the UK Border these video games, moving images, and 3D printed objects link these supposedly race-neutral biometric technologies to their colonial and racist histories, subverting them in ways that grant mobility—however virtual or fictional—to black migrants.

Acknowledgements: Legacy Film, O N C A Gallery, Brighton Digital Festival, Sussex Humanities Lab, The School of Media, Film, and Music at the University of Sussex, Code Liberation, Andrew Duff, Alexander Peverett, Kate O'Riordan, Emile Devereaux, and Leslie Marem.

The exhibition handout for *Dreams of Disguise*.

Appendix C

C.1 Journaling my Border Experiences

BORDER EXPERIENCE—~~Canada~~ Calgary
INTERNATIONAL AIRPORT.
05/JUNE/2016

As usual, the migrants were separated into their National passports. I went into a long line of about 20 people. After the students—a group of girls in Michael Kors bags—were admitted to the country to board a connecting flight they might have missed, I went in. I gave the white Canadian border officer my passport. He flipped through the pages, trying to find my Canadian Visa. He found the previous two that had expired. He scans my visa...

+ "What will you be doing in Canada?"

x "Visiting my brother and friends."

+ "Where?"

x "Winnipeg"

+ "So are you bringing items into the country?"

He checks my landing card.

x "No."

+ "No food items?"

x "No"

+ "So where does your brother and friends stay?"

x Winnipeg. I need to live there... "



Page 1 of 2. Reflective documentation of my border interview entering Canada in June 2017. In this interview, the agent asks who I intend to visit. I note that although I gave my fingerprints for the application of a visa, the agent did not scan my finger at the border.

Text reads as follows:

BORDER EXPERIENCE—CANADA CALGARY
INTERNATIONAL AIRPORT
05/JUNE/2016

As usual, the migrants were separated into their National passports. I went into a long line of about 20 people. After the students—a group of girls in Michael Kors bags—were admitted to the country to board a connecting flight they might have missed, I went in. I gave the white Canadian border officer my passport. He flipped through the pages, trying to find my Canadian Visa.

He found the previous two that had expired. He scans my visa...

± "What will you be doing in Canada?"

x "Visiting my brother and friends."

± "Where?"

x "Winnipeg."

± "And are you bringing items into the country?"

He checks my landing card.

x "No."

± "No food items?"

x "No"

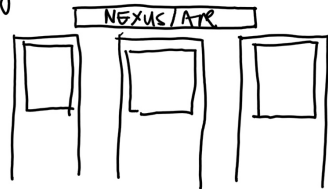
± "So where does your brother and your friend stay?"

x "Winnipeg"

He looks at my boarding pass— One of the three boarding pass checks I go through to enter into Canada "Welcome to Canada." It says. Although they took a biometric scan of my fingerprint, I notice they didn't scan me at the Canadian border.

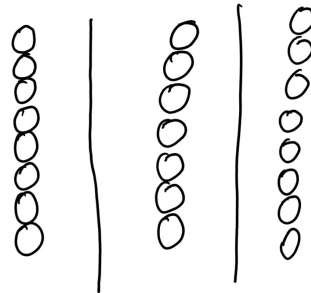
P.S. "Canadian Citizens" have a self checkout style counter "NEXUS"? "Lowrisk" Iris scan

Agent wears black latex gloves.



~~CUSTOMER SERVICE~~
~~AGENCY BORDER CONTROL~~
~~CONTROLE FRONTALIER~~
 CANADA

LOWRISK: WARM
 RED, YELLOW + ORANGE
 BROWN



Page 2 of 2. A rushed illustration from my journal showing the queue to speak to border agents and NEXUS self-service kiosks at the Canadian border in June 2017.

Text reads as follows:

He looks at my boarding passes—One of the three boarding pass checks I go through to enter into Canada "Welcome to Canada," It says.

Although they took a biometric scan of my fingerprint, I notice they didn't scan me at the Canadian border.

P.S. "Canadian Citizens" have a self checkout style counter "NEXUS"? "Lowrisk"

|

|—> Iris scan

Agent wears black latex gloves.



A rushed illustration from my research journal showing the biometric waiting room at the Nigerian High Commission in London, UK, during my passport collection in January 2018. On the television screen, plays a Nollywood film titled “Father’s Mistake.”



Documentation from my research journal illustrating the biometric capture room at the Nigerian High Commission in London, UK, during my passport collection in January 2018.