Contents

1 three

"Sex, Flesh, Skin: A Media Archaeology of Octavia Butler's *Dawn* and Entropy8Zuper!'s *skinonskinonskin*"

1.1 chapter overview

This paper juxtaposes two unlikely texts–an early hypertext work from 1999, and a science fiction novel from 1987–to unpack the role of "media" across physiological and technological systems. The early hypertext work, *skinonskinonskin*, written collectively by the artist-couple known as Entropy8Zuper!, explores electronically-mediated desire through a series of digital love poems that combine hypertext, audio, and Flash media technology. Moving from digital to embodied desire, the science fiction novel, Dawn by Octavia Butler,

poses a post-apocalyptic scenario where humans find themselves coerced into sex and procreation with extraterrestrial colonizers. In these couplings, sexual contact is routed through an alien intermediary, whose ability to plug directly into the human brain's pleasure centers intensifies their sexual instincts into all but irresistible compulsions. Though Butler's novel and skinonskinonskin present vastly different narrative worlds and physical formats, I'm interested in how both texts trouble the boundary between materiality and abstraction, in one case technological, through computer hardware and software, and in another physiological, through nervous systems and brain chemistry.

My analysis reads for sensuality across medial environments in each text. In Butler's novel, I examine how human flesh–the traditional site for sexual contact between two partners–is bypassed for direct neural stimulation facilitated by an alien intermediary. Because this direct neural connection scrambles traditional distinctions between the body and mind, during the sex act, the humans have trouble differentiating their embodied feelings from their cognitive interpretations. By bypassing the flesh, this method of intercourse dissolves the binary between self and other–the foundation for possessive individualism–as well as sense and thought. Drawing from thinkers in Chicanx Studies and Black Feminist Studies, I argue that this method creates an ethics based on pleasure rather than choice or consent.

To better understand the compulsions of pleasure and the flesh, I engage Black Feminist Studies' theorizing on the flesh. According to critics like Hortense Spillers, C. Riley Snorton, and Amber Jamilla Musser, the systematic reduction of the Black body to the physical flesh, a process that began during the violences and atrocities of the Middle Passage, creates an opportunity for rethinking the political potential of pleasure and eroticism. In my analysis, this concept of the flesh becomes a ground for understanding how physical registers interact with symbolic ones. Here, I examine how the concept of the Pornotrope, that is the reduction of body to flesh, of the conceptual (body) to the material (flesh), creates a ground for new theorizations of meaning and materiality. Specifically, this reduction of Body to Flesh offers a model of resistance to racial exploitation that reinforces sensuality and pleasure.

Turning to *skinonskinonskin*, I examine the hardware and software formats that facilitate the display and preservation of this work, tracing the complicated stack of technologies, which include web tools and Flash media. Borrowing from Media Archaeology I take a close look at what Matt Kirschenbaum describes as the "formal" level of materiality, or the effects on the screen, moving down the layers of abstraction, through the compiled code of Flash media, into the level of hardware, what he calls the "forensic materiality,"

of the internet network. My goal is to examine the material qualities of the medium–be it technical or physiological–for the ways it offers a kind of capacious mode for theorizing new forms of ethical relations.

1.2 sex

1.2.1 section overview

These sections examine human vs Oankali social structures to read the priortization of sensuality and feeling as a basis for more ethical relationships. While human nature struggles within the "contradition" of hierarchy and intelligence, the Oankali harness thier physiological ability to bypass flesh for direct neural connections that enable collectivity. The Oankali offer a model of ethics based on mutual feeling, rather than choice or consent. In the process of having "neural" sex with each other through the aliens, the humans begin to blend cognitive processes with their sensual experiences. The blending of thought and feeling shows a collision of registers, which will be useful for my media archaeological reading of the stack of technologies in the hypertext peice, *skinonskinonskin*.

The crucial point of this section occurs in my close-reading of the scene when Lilith first meets the aliens, and her experience of xenophobia, which is crytallized in her use of the comparison to "Medusa". I draw from Chicana Studies to explain how the comparison to Medusa expresses a fear of the unknown through the frame of the known. Furthermore, it shows the "human contradiction" at work–the intersection of a hierarchical impulse and a capacity for intelligence–a contradiction which the novel demonstrates can be resisted overcome by bypassing the flesh, which is the topic of my next section.

1.2.2 *Xenogenesis* to xenophobia: intro

In the novel *Dawn*, the first of the *Xenogenesis* trilogy by Octavia Butler, the main character, Lilith Iyapo, is seduced by an alien. The alien, called "Nikanj," is an ooloi, or third-gendered being. Nikanj coaxes Lilith to join it and her human partner, Joseph: "'Lie here with us,' it says, 'Why should you be down there by yourself?'" (PAGE NUMBER). Lilith's erotic impulse is difficult to resist:

> She thought there could be nothing more seductive than an ooloi speaking in that particular tone, making that particular suggestion. She realized she had stood up without meaning to and taken a

> step toward the bed. She stopped, stared at the two of them. Joseph's breathing now became a gentle snore and he seemed to sleep comfortably against Nikanj as she had awakened to find him sleeping comfortably against her many times. She did not pretend outwardly or to herself that she would resist Nikanj's invitation—-or that she wanted to resist it. Nikanj could give her an intimacy with Joseph that was beyond ordinary human experience. And what it gave, it also experienced. PAGE NUMBER

The erotic draw that Lilith experiences is intense enough to make her temporarily ignore that these aliens, called "Oankali," have descended upon earth with one goal: to coerce humans to reproduce with them, creating a human-alien species. As ooloi, Nikanj has a special sexual organ that enables a neural connection between a male and female partner, in this case, between Lilith and Joseph. It makes this connection by inserting its sexual organ, a "sensory hand," into its partner's spinal cord, located at the back of the neck. Then, during the sex act, the alien collects reproductive material which it will eventually use to engineer a viable embryo made of human and Oankali genes.

Despite her eagerness to join Nikanj in sex, Lilith harbors a deep resistance against the Oankali's intention to procreate with humanity. Scenes like the one above, in which Lilith surrenders to her sexual desire, appear in stark contrast to her determination to escape, conveyed by her invocation to "Learn and run!" which she repeats up until the last page of the novel. Having barely survived a nuclear apocalypse only to be "rescued" by the aliens, Lilith, along with the surviving humans, is being held on the Oankali spaceship in preparation to do their part in the "gene trade"–that is, to help re-populate the earth with the new human-Oankali species. The Oankali have given Lilith a special job to be a shepherd, what she calls a "Judas goat," to guide humans to accept that humanity will change forever, that their children will look like "Medusa children" (Butler 87).

The conflict between various biological drives, such as sex drive versus the survival drive, speaks to a larger debate among the novel's critics about the primacy of biological impulses in determining human behavior and characteristics. For, even when this sex act appears contained to the mind, it is always portrayed as something that relies on and is guided by the material exegencies of the body. Donna Haraway and Kitty Dunkley, for example, argue that the interspecies couplings challenge assumptions about biological essentialism that power naturalized notions of sex, race, and the human/animal divide. Haraway's influential reading of the novel, from her book *Primate Visions:*

Gender, Race, and Nature in the World of Modern Science (1989), situates the novel as a feminist, posthuman critique of human-animal hierarchies and divisions. Reading the novel "as if it were a report from the primate field in the allotopic space of earth after a nuclear holocaust," Haraway sites the inter-species relations and the way these relations reconceive notions of choice and consent as examples to "facilitate revisionings" of "difference, reproduction, and survival" (Haraway 376, 377).

On the other hand, critics like Stephen Barnes, Nancy Jesser, and Erin Ackerman argue for the primacy of biology in naturalizing aspects of identity. Stephen Barnes, who knew Butler personally and professionally during her life, maintains that her biological researches influenced her beliefs about human nature, particularly as the development of hierarchical tendencies. According to Barnes, Butler was fascinated by what she called "emergent properties," which begin from small impulses, like the tendency to categorize something as either similar or different, as the seeds of complex social behaviors and structures. Nancy Jesser brings this idea to the portrayal of sex, arguing that "the plot relentlessly reinforces certain sociobiological notions of essential and 'natural' male and female through the concept of biological 'tendency'" (Jesser 41-42).

1.2.3 TODO add connection to queer studies, critical debate on biology

This paper argues that the heterosexual paradigm is indeed disrupted, and it is disrupted by a queer mode of relation which emerges in the tripartite sexual union enabled by the ooloi figure. The linkage of neural pathways between two bodies, a linking that bypasses the obstacle of flesh to connect directly to the brain's pleasure centers, scrambles the distinctions between thinking and feeling. This chemical signaling surfaces a clashing of registers between cognition and sensation that dissolves the differences between the materiality of the flesh and the abstraction of cognitive processes. This kind of sex also blurs the binary between self and other–the foundation for possessive individualism.

This chapter will explore this clashing of registers across three domains: science fiction (that of Butler's novel), Black Feminist Studies, and Media Archaeology Studies. I will examine how each of these domains handles the intersection of physical embodiment with chemical, conceptual, and/or electrical signaling, reading for sensuality across various medial environments in each domain.

First, in Butler's novel, I seek moments of heightened sensuality, which

occurs not only in sexual contact, but interestingly, in moments of xenophobia when the humans encounter the aliens. My close-reading of these moments finds that desire and fear work similarly to scramble traditional distinctions between the body and mind, which struggle to differentiate embodied feelings from their cognitive interpretations. The blending of physical and conceptual registers here enables a new, human-alien ethics based on pleasure rather than choice or consent. Then, to explore this new ethics, I engage Black Feminist Studies' theorizing on the flesh. According to critics like Hortense Spillers, C. Riley Snorton, and Amber Jamilla Musser, the systematic reduction of the Black body to the physical flesh, a process that begins during the violences of the Middle Passage, creates an opportunity for rethinking the political potential of pleasure and eroticism. This concept of the then flesh becomes a ground for understanding how physical registers interact with symbolic ones in my final section, on electronic media. Turning to a hypermedia narrative work, *skinonskinonskin*, I examine its hardware and software formats, tracing the complicated stack of technologies that include programming languages and Flash media. Borrowing from Media Archaeology, I take a close look at what Matt Kirschenbaum describes as the "formal" level of materiality, or the effects on the screen, build on layers of software abstractions, against what he calls "forensic materiality," which is the level of hardware, bits and signals. My goal is to examine the material qualities of the media–physiological and technical–for the ways materiality offers a kind of capacious mode for theorizing new forms of ethical relations.

For the rest of this section on *Dawn*, I will deconstruct the erotic as a physical, sensual phenomenon. Where do thought and feeling intersect in moments of heightened sensuality? How does approaching thought as physical, or feeling as conceptual, change the way we think about ethics and social relations, especially those that concern choice and consent? To answer these questions, I will first examine one of these moments of heightened sensuality, that of extreme fear, to tease a connection between xenophobia and xenogenesis.

1.2.4 fear of the unknown

We begin with a moment of fear from early in the story, when Lilith first comes face-to-face with her captors. Jhadaya, a male Oankali, meets Lilith in her isolation room. Initially, Lilith processes his alien body much like human anatomy:

> The lights brightened as she had supposed they would, and what had seemed to be a tall, slender man was still humanoid, but

> it had no nose–no bulge, no nostrils–just flat, gray skin. It was gray all over–pale gray skin, darker gray hair on its head that grew down around its eyes and ears and at its throat. There was so much hair across the eyes that she wondered how the creature could see. The long, profuse ear hair seemed to grow out of the ears as well as around them. Above, it joined the eye hair, and below and behind, it joined the head hair. The island of throat hair seemed to move slightly, and it occurred to her that that might be where the creature breathed–a kind of natural tracheostomy.
>
> Lilith glanced at the humanoid body, wondering how humanlike it really was. "I don't mean any offense," she said, "but are you male or female?"
>
> "It's wrong to assume that I must be a sex you're familiar with," it said, "but as it happens, I'm male."
>
> Good. It could become 'he' again. Less awkward. 29

Although Jdhaya points out Lilith's mistake about assuming gender, she nonetheless takes some comfort from being able to call Jdhaya a "he." The gender designation, along with a catalogue of mammalian anatomical features "hair," "eyes," "ears," and "throat," display the strength of an impulse to categorize the unknown according to human terms. Lilith's comfort, however, is short-lived, when the strangeness of the alien's appearance exceeds the terms available to her:

> She did not want to be any closer to him. She had not known what held her back before. Now she was certain it was his alienness, his difference, his literal unearthliness. She found herself still unable to take even one more step toward him.
>
> "Oh god," she whispered. And the hair–the whatever it was–moved. Some of it seemed to blow toward her as though in a wind, though there was no stirring of air in the room.
>
> She frowned, strained to see, to understand. Then, abruptly, she did understand. She backed away, scrambled around the bed and to the far wall. When she could go no farther, she stood against the wall, staring at him.
>
> Medusa. 30

The attempt to understand Jhadaya's difference is more instinctual than logical. As Lilith attempts to place the alien into familiar categories, she

undergoes a complex physiological process. First, she deploys anatomical categories to perceive Jhadaya. Then, as his difference begins to register, she apprehends him on a pre-linguistic, embodied level, which is expressed by an paralyzing aversion–"She found herself unable to take even one more step toward him" (29-30). When Lilith examines his face more closely, the interval of immobilizing fear ends abruptly with her "understand[ing]." Her final impulse is to express her aversion in figurative language, with an evocation of the mythical figure "Medusa."

Medusa here is significant. It demonstrates that Lilith subscribes the unknown in terms of something that is familiar to the human imaginary, ableit in the context of myth and fantasy. The physio-cognitive progression from instinctual body movement to intellection recalls a deeper reality about humanity and how it handles the unknown. This can be attributed to human genetics which express, according to the Oankali, the "human contradiction." Later in this scene, Jhadaya, explains this contradiction in terms of two characteristics:

> "You are intelligent," he said. "That's the newer of the two characteristics, and the one you might have put to work to save yourselves. You are potentially one of the most intelligent species we've found, though your focus is different from ours. Still, you had a good start in the life sciences, and even in genetics."
>
> "What's the second characteristic?
>
> "You are hierarchical. That's the older and more entrenched characteristic. We saw it in your closest animal relatives and in your most distant ones. It's a terrestrial characteristic. When human intelligence served it instead of guiding it, when human intelligence did not even acknowledge it as a problem, but took pride in it or did not notice it at all..." [...] "That was like ignoring cancer. I think your people did not realize what a dangerous thing they were doing."

According to Jhadaya, the tendency toward hierarchy, as a "terrestrial" characteristic, is ingrained in all humans. The impulse to stratify people, to create social groupings, even to colonize and oppress, descends from an ancient instinct that once served to sustain, protect, and organize early human tribes. But when the hierarchical instinct grows unchecked into the modern world, Jdhaya explains, it creates unjust divisions, such as stratifying people along gender, race, nationality, and class, for example.

Fear, then, descends from biological imperatives: the human constradiction, a combination of intelligence and hierarchy. For Lilith, then, the tendency toward hierarchy first demands that she place this being on a scale of familiarity. She compares Jhadaya to what she already knows about other living beings, that he fits into a binary gender designation, for example. However, when the hierarchy fails to subsume his other qualities, like the tentacles emerging from all over his body, her intelligence steps in to speculate with an analogy, "Medusa." Her mind makes the leap between what she sees and what she can imagine.

1.2.5 fear of the known

That Lilith uses an analogy to the Medusa indicates something important about this particular type of xenophobia–that her fear is not just of otherness, but in the interplay between otherness and similarity. It is this interplay between similarity and difference and their combination in nontraditional ways causes a reaction of fear and repulsion. What scares Lilith is an apparent familiarity of this humanoid, bipedal, two-limbed creature, which has an audible language and conscious intelligence and displays aspects that do not belong to any mammal–the tentacles. Lilith's use of the "Medusa" comparison marks the moment when she, who until then has been struggling to place a strange being within known phenomena, finally settles onto a familiar designation. Despite his alienness, at that point, Jhadaya becomes incorporated into an anthropocentric worldview–specifically, into a fearsome figure that represents monstrous and deadly femininity.

The criticism from the novel examines this interplay of similarity and difference, much of it situating the tension within Women of Color feminism, particularly in Chela Sandoval's theorization of "differential consciousness." In an early and influential commentary, Donna Haraway describes *Dawn* as an example of the "techno-bio-politics of difference" (Haraway, *Primate Visions* 376).[1] Using terms that echo in her famous followup work, "The Cyborg Manifesto," she describes this text (and Butler's fiction in general) as being "about the monstrous fear and hope that the child will not, after all, be like the parent" (Haraway *Primate Visions* 387). Catherine S. Ramirez builds from both Sandoval and Haraway to explore the tension between essentialism and constructedness in the novel, which she calls an example of "cyborg feminism"–a feminism that explores a strategic tension between

[1] Haraway draws from Chela Sandoval's concept of "differential consciousness" that "constructs a kind of postmodern identity out of otherness, difference, specificity" (*Simians* 155).

between "affinity and essence, and "plurality and specificity" (Ramirez 395). Ramirez argues that, by "critiqu[ing] fixed concepts of race, gender, sexuality and humanity, and, subsequently, 'fictions' of identity and community" this work displays a "strategic deployment of essence," that is, the claiming of a subject position for the purpose of resisting subjectification (Ramirez 375, 395).[2] Ramirez explains that while difference is necessary, essentializing is also necessary within a feminist project. While essential understandings of identity have been used to reduce, denigrate, and oppress identity groups, some kind of positionality with regard to identity is necessary in order to "forg[e] links between women from distant and disparate locations" (Ramirez 384). It is a quality that enables connection and recognition across differences.

Women of this movement were also careful to emphasize the danger in overlooking differences among groups. Seeding the ideas that will eventually become the Intersectional Feminist movement in the 21st century, Women of Color Feminism's critique of identity politics, such as the universalizing of terms like "woman," emphasizes a strategic deployment of difference toward the goal of aligning across social and cultural groups. As bell hooks explains, the rally for solidarity across "women" has the effect of overlooking differences contained within women, such as the ways that category intersects with race, gender, class, ability, and so on. hooks emphasizes the need for specific terms that make legible different lived experiences across social groups. For example, she points out that the word "oppression" fails to represent the situation of all women: "Being oppressed means the absence if choices... Many women in this society do have choices (as inadequate as they are); therefore exploitation and discrimination are words that more accurately describe the lot of women collectively in the United States" (*Feminist Theory: From Margin To Center* 5). In striving for solidarity, one must be careful not to collapse difference. They key here is specificity. A differential consciousness locates similarity across difference without negating the ways that difference inflects lived experience.

While the criticism on the novel does a good job of situating the tension between similarity and difference within WOC feminism, I am interested in this experience of difference and similarity-in-difference as a physiological response, and what that can teach us about ethical relations. As Lilith exhibits with the Medusa analogy, the interplay between similarity and difference instigates fear. There is an encounter with the other, which

[2]Chela Sandoval describes "tactical subjectivity" as the process by which identity formations constantly shift to elude and oppose the universalizing tendencies of identity politics (Sandoval 1991, 14).

triggers xenophobia. But as Chicana feminist and writer Cherrie Moraga explains, the feeling of fear is heightened by a perceived similarity. Speaking within the context of social hierarchies, Moraga explains that, "it is not really difference the oppressor fears so much as similarity.... He fears he will have to change his life once he has seen himself in the bodies of the people he has called different" (32). In the her first meeting with Jhadaya, Lilith's fear response heightens when she realizes that his anatomy is different from the familiar human anatomy: "She had not known what held her back before. Now she was certain it was his alienness, his difference, his literal unearthliness" (Butler 30). Lilith, who first registers Jhadaya in terms of similarity, describing his ears, mouth, and hair, experiences an intense form of fear when she acknowledges the difference in his figure.

1.2.6 TODO fear is a sensual phenomenon

As evidenced by the example of "Medusa," the two sides of the human contradiction, hierarchy and intelligence, work together to engender a sense of all-consuming fear of the other.

Similarity perceived across difference causes fear. However, at the same time that it causes fear, it also offers an opportunity for connection, according to Chicana feminists like Moraga and Gloria Anzaldua. Moraga, who describes herself as "la guera," the light-skinned one, among her family, draws from her sexuality to relate across this difference. Speaking of her relationship to her mother, Moraga explains that:

> It wasn't until I acknowledged and confronted my own lesbianism in the flesh that my heartfelt identification with and empathy for my mother's oppression–due to being poor, uneducated, and Chicana–was realized. My lesbianism is the avenue through which I have learned the most about silence and oppression, and it continues to be the most tactile reminder to me that we are not free human beings. Moraga 28-29

Here, the thing that makes Moraga different, her sexuality, is what enables her to make a connection to other kinds of difference, specifically differences across skin tone. This confrontation occurs "in the flesh," meaning that difference is felt, as a sensational phenomenon. Rather than sever the relationship with her mother, Moraga's embodied experience of her difference, her lesbianism, serves as a "tactile reminder" that can bridge the gap between self and other.

When difference is a source of "silence and oppression," as it has been for Moraga's sexuality, finding similarity requires a deeply sensual process.

Gloria Anzaldua, a Chicana lesbian like Moraga, explores a method for *incorporating* difference into identity in the form of figuration and embodied states. Anzaldua, who grew up in the remote "el Valle" region on the Texas-Mexico border, emerges from a Aztec, Spanish, and Mexican backgrounds with the goal of integrating her indigenous roots into a modern Chicana identity. Anzaldua knows that surfacing this history and heritage will require "developing a tolerance for contradictions, a tolerance for ambiguity... learn[ing] to be an Indian [sic] in Mexican culture, to be a Mexican from an Anglo point of view" (Anzaldua 78-79). Anzaldua resurrects and incorporates latent and fearful aspects of the cultural psyche in the form of the ancient Aztec goddess, Coatlicue. Like Medusa, Coatlicue is associated with snakes, her name translating from Nahuatl into "serpent skirt," and she is often depicted with a skirt of serpents, as well as a necklace of human hearts. Originally, as the "Earth Mother who conceives all celestial beings out of her cavernous womb," Coatlicue represents a unity of opposites, the dual forces of life and death, fertility and destruction (Anzaldua 46). Over time, however, Anzaldua explains that this unity has been severed into aspects such as the pure from the impure. First, Aztec culture, influenced by a growing patriarchy, split Coatlicue into the fertility earth goddess, "Tonantsi" (the puta) and into "Coatlalopeuh" (the chaste) (27). Then, with the arrival of the Spaniards, the figures were split again, this time into the Virgin of Guadalupe, the most revered figure of Mexican Catholololicism, with the negative aspects incorporated into the figures La LLorona and La Chingada.

Coatlicue incorporates the originary whole that holds all aspects, positive and negative, of the self. Anzaldua's goal is to bring back the severed aspects of Coatlicue and unifiy them into a modern imaginary: "Coatlicue- Cihuacoatl- Tlazolteotl- Tonantzin- Coatlalopeuh- Guadalupe–they are one" (50). Anzaldua affirms that, "Let the wound caused by the serpent be cured by the serpent" (50). The process by which Anzaldua accesses and integrates the scattered aspects of Coatlicue is the "*Coatlicue* state." Here, Anzaldua enters into a trance, a spiritually open state, to confront the pain, shame, and lonelienss of a severed identity. She explains that, "We need *Coatlicue* to slow us up so that the psyche can assimilate previous experiences and process the changes... Our greatest disappointments and painful experiences–if we can make meaning out of them–can lead us toward becoming more of who we are" (Anzaldua 46). The process is a difficult one; it requires seeing the darkness in the other, and and incorporating that darkness into feelings of disappointment and pain. In her encounter with

Coatlicue, Anzaldua describes a visual process of confrontation between the self and other, *Coatlicue*:

> Seeing and being seen. Subject and object, I and she. The eye pins down the object of its gaze, scrutinizes it, judges it. A glance can freeze us in place; it can "possess" us. It can erect a barrier against the world. But in a glance also lies awareness, knowledge. These seemingly contradictory aspects–the act of being seen, held immobilized by a glance, and "seeing through" an experience–are symbolized by the underground aspects of *Coatlicue*, *Cihuacoatl*, *Tlazolteotl* which cluster in what I call the *Coatlicue* state. 42

Here, vision is simultaneously a tool for capture, for being "pin[ned] down" or "immobilized," and a tool of enlightenment, in "awareness, knowledge." Anzaldua embraces the duality of this aspect, and in what seems to be a paradoxical effect, which is freedom in possession. Being the object of *Coatlicue*'s gaze is both to reliquish agency and to open a connection. This enables an intimate relation to the other, but without total incorporation. Anzaldua's repeatedly emphasizes the importance of containing duality, opposites, which she also figures as "a struggle of borders," or a "choque" of cultural collisions (Anzaldua 78-79). Rather, the power that comes from confronting and connecting with the other stems a sense of incompletion, partiality, and lack of fulfillment. Latin American philospher Ofelia Schutte, describes this aspect as "incommensurability." Writing on the problem of "cross-cultural communication," or "how to speak to the 'other' who is different from oneself," Schutte proposes that one attend to incommensurability, the "residue of meaning that will not be reached in cross cultural endeavors" (Schutte 53, 56). In conversation, for example, interlocutors can observe moments when the other's speech "resonates in [one] as a kind of strangeness, a kind of displacement of the usual expectation" (Schutte 56). This process keeps the other in some way unknowable or un-essentializable.

1. -> alarcon: sustain strangeness rather than incorporating it Alarcon Alarcon makes a similar point in her argument about the dangers of "ontologiz[ing] difference," that is, of subsuming specific difference into a universal identity politics. She explains that,

   > The desire to translate as totalizing metphorical substitution without acknowledging the "identity-in-difference," so that one's own system of signification is not disrupted through a historical concept whose site of emergence is implicated

> in our own history, may be viewed as a desire to dominate, constrain, and contain. 133

> The challenge is to achieve connection without totally subsuming the other into totalizing and therefore oppressive paradigms of subjectivity

> The point here is to not subsume that quality of strangeness in the other into familiar structures of knowledge, like the way that Lilith subsumes Jhadaya's strangeness into the similitude of the terrifying Medusa. Rather, the point is to sustain the strangeness without attempting to block it out.

1.2.7 pleasure

Oankali do not have a fear of difference, they crave it. Oankali, unlike humans, are attracted to difference. As Jhadaya explains to Lilith: "We acquire new life, seek it, investigate it, manipulate it, sort it, use it. We carry the drive to do this in a minuscule cell within a cell, a tiny organelle within every cell of our bodies" (84). This essential drive, which powers their "gene trade," is made possible by that which the humans find most disturbing about their captors–the tentacle-like organs that sprout from their bodies. These organs transmit all external sensory information such as sight, hearing, touch, smell, and taste, provide channels for the immediate sharing of thoughts and feelings in intra-Oankali communication, and faciliate sex.

Unlike humans, Oankali can close the gap between self and other. This sensory capacity puts them into direct contact with those who are different. As a result, the Oankali do not fear difference, rather, they crave it. They seek to blend with difference and incorporate it into new life forms, an expanding species. This craving to absorb difference is encoded in their genetic ancestry. Nikanj, the ooloi child who will eventually become Lilith's mate, explains to Lilith that "'Six divisions ago, on a white-sun water world, we lived in great shallow oceans'[...] 'We were many-bodied and spoke with body lights and color patterns among ourself and among ourselves" (123). From this ancestry, the current Oankali inheirited a drive for collectivity.

Because health and vitality are necessary in order to "trade" genes, the Oankali do not admit any form of harm or destruction to life. At several points in the book, this regard for life combined with the inability to deceive make it difficult for the Oankali to understand (and therefore anticipate) human tendencies for violence. For example, the Oankali overlooked suspicion, paranoia, and rebellion among the humans, which leads to violence and death toward the end of the novel. Joseph, Lilith's partner, is killed by a

group of humans who the Oankali have let escape. Due to their biological imperative for life, and the Oankali were unable to anticipate the violence and couldn't not save Joseph's life in time. Not only are the Oankali blind to motives of violence, but they also have different views on consent. Soon after Joseph's murder, Nikanj then uses Joseph's genetic material to impregnate Lilith without her knowledge, much less her consent. It explains to Lilith that it only gives her what she truly wants, which is a child:

> "You'll have a daughter," it said. "And you are ready to be her mother. You could never have said so. Just as Joseph could never have invited me into his bed–no matter how much he wanted me there. Nothing about you but your words reject this child." 468-9.

For the Oankali, sustaining and cultivating life is the principal factor for decision-making. Nikanj's reasoning is simple: it knows Lilith will love and accept the child. When Lilith protests that "It won't be human," it warns that "You shouldn't begin to lie to yourself. It's a deadly habit. The child will be yours and Joseph's" (469). This quality of the instant and intimate connection is so encompassing that it nullifies any need for deception between Oankali who cannot avoid full disclosure and as a result, never lie.

- mental v embodied consent

This tendency for collective consciousness, distributed among the beings, singular and plural at once, "ourself and ourselves," destabilize the an assumption underpinning free will, that of consent. The sex scenes in particular portray a level of sensual pleasure and connection that it is difficult to separate embodied desire from conscious will. As Jayna Brown points out, "the pleasurable experience of sex with the Ooloi is so highly compelling it is sometimes likened to rape in the text" (105). The issue of consent in the novel is a significant one: humans find themselves compelled into sexual relations with the Oankali through chemical means, either by direct drugging to pacify them or by the more subtle release of pheramones that arouse an overwhelming sexual desire. In doing so, the Oankali, who are biologically engineered promoting pleasure toward for creating and sustaining, maintain that the humans desire this sex on a physiological level. Joshua Yu Burnett explains that "the novel's treatment of the issue [of consent] is both provocative and troubling" (110). On the more troubling side, Burnett points out the acts of involuntary sterilization, forced conception, complicity in human-on-human rape, and most seriously, Nikanj's rape of Joseph, Lilith's partner.

Yet, Burnett maintains, "none of this is meant to suggest that the Oankali are vicious, brutal rapists" (117). Because their sensory and communication capacities prevent the Oankali from lying or deception, "they seem quite genuine in their insistance that human claims of non-consent belie a deeper, physio-psychological consent" (Burnett 117). For the Oankali, consent gives way to consensus.

- consensus revises/shifts contradiction power imbalances

The issue of consent in the novel points to the ways that subjugation and coercion is part of a framework that revises the human contradiction. Justin Louis Mann argues that the novel evokes the concept of "pessimistic futurism," combining the cynicism of afro-pessimism, which associates blackness with ontological death and the impossibility of black subjectivity, and the optimism of afro-futurism, which speculates and potentializes liberatory black subjectivity and futurity. Mann explains that the sexual relationship between Lilith, Joseph, and Nikanj conveys this dynamic, a relationship that is crystalized in the image of Nikanj's "sensory arm" wrapped around Lilith's neck, which she describes as "an oddly comfortable noose" (Mann 62). Drawing from history of subjugation and death, the noose also evokes comfort, a kind of complacency with sexuality, made possible through pleasure. According to Mann, this seeming paradox between "pleasure and pain, history and futurity, and abjection and subjection" has the potential to replace the injustices of the human contradiction (Mann 62). Rather than being subjected to the stratifications of society based on identity, race, and class, humans are subjected to their own own physical pleasure and well-being, regardless of their mental opposition.

For the Oankali, the emphasis is not on consent but on consensus. The Oankali handle difference and dissent by literally *incorporating* it into their organism through genetics or through tenticular connection. The sex scenes here are particularly instructive. When Nikanj presents himself to Lilith, one might expect a split between her embodied instinct and free will, that is, between her sexual desire and her determination to rebel against the forced interbreeding. One instead encounters their conflation. Lilith welcomes her body's immediate, unconscious response to Nikanj's invitation: "She realized she had stood up without meaning to and taken a step toward the bed... She did not pretend outwardly or to herself that she would resist Nikanj's invitation—-or that she wanted to resist it" (PAGE NUMBER). Lilith's body acts before her conscious mind can intervene. When her conscious mind does catch up to her body, it lacks the will, even the smallest hint of one, to refuse

her desire. Rather, her desire and her will are in harmony, both in step to fulfill the act that she spends the rest of the book plotting to resist.

1. the workings of pleasure

    - Looking at sex, how it bypasses the flesh. Which enables us to see

    how what we assume to be purely cognitive is actually fleshy, embodied.

    - The fleshiness of mental experience changes the way we view

    heterosexuality.

    The conflation between desire and will has to do with the priortization of pleasure in the body, in the flesh. The flesh–the central conduit for human sexual contact and its source of pleasure–is an obstacle for Oankali. In their sexual unions, the male and female bodies do not touch, but are rather routed through the "ooloi," an intermediary, nonbinary being whose "sensory arms" plug directly into into the brains of each partner. This intermediary dispenses not only with the flesh but also with human modes of communication and intimacy to stimulate the brain's pleasure centers directly.

    During the sex act, Lilith experiences a torrent of thought and sensation which leads her to question the objective reality of her experience. "Plugged" into Joseph via Nikanj, she

    > immediately recieved Joseph as a blanket of warmth and security, a compelling, steadying presence.
    >
    > She never knew whether she was receiving Nikanj's approximation of Joseph, a true transmission of what Joseph was feeling, some combination of truth and approximation, or just a pleasant fiction.
    >
    > What was Joseph feeling from her?
    >
    > It seemed to her that she had always been with him. She had no sensation of shifting gears, no "time alone" to contrast with the present "time together." He had always been there, part of her, essential. 308-309

    What Lilith first feels as a physical presence, she then builds into cognitive interpretations. Lilith senses Joseph as a "blanket of warmth" and a "steadying presence." To these physical sensations, she augments

mental interpretations of "security" and "compelling." She then begins to question the objective truth of her experience, wondering what Joseph is feeling, and whether he shares in the same sensations. This doubt, however, soon fades to reassurance as she intuits that "He had always been there, part of her, essential." This progression reveals that, while she initially suspects whether Joseph is feeling the same way, the blending of sensation and thought seems to inspire belief in their union. Physical presence transforms into a mental certainty: "he had always been there, part of her, essential."

Meanwhile, Nikanj, who is mediating the experience, becomes imperceptible to the two of them:

> Nikanj focused on the intensity of their attraction, their union. It left Lilith no other sensation. It seemed, itself, to vanish. She sensed only Joseph, felt that he was aware only of her.
>
> Now their delight in one another ignited and burned. They moved together, sustaining an impossible intensity, both of them tireless, perfectly matched, ablaze in sensation, lost in one another. 308-309

The lovemaking that fuses physical and mental experience, with them "lost in one other," dissolves Lilith's sense of time, space, and the distance between her and Joseph, who she felt "was aware only of her." In the midst of this intensity, the intermediary responsible for this fusion fades. And paradoxically, this fusion between minds surfaces the power of the flesh, engendering that which their neurological connection bypasses—physical sensation.

Afterward, when Lilith asks if the sex is simulated, Nikanj explains that although sensory experience is shared between herself and Joseph, "Intellectually, he made his interpretations and you made yours." To this, Lilith remarks that she "wouldn't call them intellectual" (310-311). That Lilith questions whether her mental experiences are true or not, that she doubts her experience on the level of objective reality, points to an important lesson about human-to-human contact: The gap between human bodies, who are not connected by neural infrastructure, creates the potential for miscommunication and misunderstanding. And the flesh, the traditional route for bridging this gap, can add to the confusion. While humans must navigate through communication and the flesh to attain unity, the Oankali can bypass these obstacles entirely,

plugging directly into the brain's pleasure centers. By routing sensual connection to the brain, they eliminate the space for discomfort and even repulsion which can occur when in flesh-to-flesh contact. This immediate connection facilitated by the ooloi offers a sensual and cognitive experience that is beyond human abilities. As Nikanj explains, it "offer[s] a oneness that your people strive for, dream of, but can't truly attain alone" (359).

2. bioloigical determinism debate Through a neurological infrastructure, cognitive and mental experiences emerge as a physical phenomenon, with partners "ablaze in sensation" (309). The importance of the bodily sensation speaks to one critical debate about the influence of the body, in particular, the influence of biology, on identity and behavior in the novel. One group of critics generally maintain that the novel destabilizes biological categories its associated assumptions about behavior, while a second argue that the novel reinforces biological determinist views. This debate on biological determinism turns on the relationship between behavior expressed in action, will, and tendency against biological fact. How and in what way does the body as a physical fact *matter* in the text?

   The first group emphasizes the novel's revision of biological determinist views, particularly when it comes to gender. Donna Haraway's early critique of the novel fits within her larger project exploring the deconstruction of essentialized notions of identity across humans, animals, aliens, and machines. "Gender," she argues, "is not the transubstantiation of biological sexual difference," rather, it is "kind, syntax, relation, genre" (*Primate Visions* 377). Speaking of Butler's work in particular, Haraway points out that the revision of power dynamics and individual agency serve to destabilize teleological stories that recreate more of the same (378). Using language that prefigures her famous essay, "Cyborg Manifesto," Haraway claims that Butler's fiction, "especially Xenogenesis, is about the monstrous fear and hope that the child will not, after all, be like the parent" (Haraway 378). Critics who build Haraway's reading, like Catherine Ramirez and Kitty Dunkley, explore how Butler deploys aspects of biological identity in a strategic way. Ramirez explains that Butler strategically deploys essentialist identity categories, as a tool for "imagining and mobilizing new subjects and new communities" (395). Drawing from Gayatri Spivak's "Strategic essentialism" (Spivak 1993), Ramirez explains that essentialist identity is both a tool and and obstacle:

> "The tension between affinity and essence, and between plurality and specificity... highlights a contradiction of woman-of-color subjectivity and feminism. The histories of racism, imperialism, patriarchy, and homophobia have rendered women of color abject, yet, via history, women of color must claim some sort of position in order transform themselves into (speaking) subjects (without replicating the regime[s] that silenced them). Ramirez 395-396

Ramirez explains that that identity, which has been an obstacle to attaining subjectivity, is simultaneously a tool that can be redeployed to claim that same subjectivity. Making a similar argument, within a frame of humanism, Kitty Dunkley emphasizes Butler's revision the anthropocentric and patriarchial structures that necessitate essential notions of gender. According to Dunkley, the Oankali "are ostensibly constructed invert our Humanistic egocentrism" (96). An example of this egocentrism is the men's fear of the sexual seduction and penetration by the ooloi, which "threatens to usurp the men's position at the pinnacle of a gendered hierarchy" (Dunkley 100). Dunkley situates the novel as a radical example of a posthuman framework, in the craving to integrate difference. The novel, she argues, "prompts us to question how our relationships and sense of kinship with the racialized, sexualized, and naturalized Other might look, if, like the Oankali, we chose to 'embrace difference'" (Dunkley 113-114). For both Ramirez and Dunkley, biological "facts" of gender are concepts to be deconstructed, rather than reinforced.

By constrast, critics like Nancy Jesser and Stephen Barnes center the role of biological determinism within Butler's fiction. Jesser boldly asserts that "Genetics is the science of Butler's fiction. The translation of genotype to phenotype is the plot" (52). According to Jesser, the novel re-works genetic tendencies of behavior by deploying feminine traits, like maternal self-sacrifice, nurture, and relationality, to correct tendencies of dominance, possessiveness, and aggression typically displayed by the males (41-42). Jesser argues that moments of male aggression, lik rape, are "both natural and avoidable" due to the intervention of feminine traits of relationality, cooperation, and flexibility (Jesser 43). Ultimately, such feminine capacities will enable humanity to expand beyond its innate, destructive tendencies. With a similar emphasis on biology, Barnes cites Butler's interest in "emergent properties" of human biology. According to this view, "Tiny individual tendencies

multiplied across thousands or millions of interactions over lifetimes create the kind of dangerous, intractable sexism and racism that Octavia saw as the building blocks of Armageddon" (Barnes 12). For this side of the debate, biology is a physical fact that determines behavior, but can also be re-worked or overcome through other tendencies.

While one side reads biology in the novel as physically-based and deterministic, and the other side reads it as an oppressive ideology to be deconstructed, they both agree on one point: the primacy of heterosexuality and the exclusion of non-normative sexualities in the novel. These views are due to the gendered structure of the sex act, which maintains a male/female coupling, despite the addition of an ooloi participant. Haraway points out that,

> Heterosexuality remains unquestioned, if more complexly mediated. The different social subjects, the different genders that could emerge from another embodiment of resistance to compulsory heterosexual reproductive politics, do not inhabit this *Dawn*. In this critical sense, Dawn fails in its promise to tell another story, about another birth, a xenogenesis. 380

According to Haraway, Butler's deconstruction of species and sex falls short of affecting sexuality. Several critics agree with this reading, like Erin Ackerman, who draws from Jesser's work to say that "heterosexuality does read as the standard, or even, only erotic option available" (Ackerman 40).

There is one exception to this view, from Patricia Meltzer, who argues that the trilogy, and its third installment specifically, presents a view of non-normative sexuality which can literally transform bodies at will. In this book, the human-Oankali constructs evolved the ability to manipulate organic matter within their own bodies, as shape-shifting beings who can adapt to their prospective partner's desires. Drawing from Judith Butler, Meltzer poses a body that is queer because it is constructed by desire:

> "Butler's concepts here are positioned neither in a biological essentialism that insists on gender identity (woman) as derivated of a body's sex (female), nor in a social and/or psychological constructivism that udnerstands the body's materiality as dominated by (social) discourse. Instead, desire and sexuality

> are based in the body's need for others... the body follows desire. Meltzer 241

While other critics point out the disruptions to normativity, like in those in which the binary is destabilized, upended, where gender roles are reimagined, here Melzter draws out alternate visions for sex, gender, and desire altogether. Building from Butler's concept of performativity, Meltzer defines queerness as resisting the normative correlation of sex/gender/desire. The failure of easy alignment among these elements opens up the possibility of imagining how desire can construct new configurations of sexuality, that are "rooted in the body's amorphous craving for physical pleasure" (Melzter 236).

I agree with Meltzer that the sex act is a queer one, but not because of a desire that literally transform bodies. Rather, the sex act is queer because of the way that it simultaneously bypasses and invigorates the flesh. Here, I draw from Jayna Brown's emphasis on the flesh and how it opens up possibilities for reconceiving subjectivity. She asks, "Does the self need bounded wholeness in order to feel, or can it thrive in the effluent?" (14). According to Brown, while the senses "individuate us, demarcate our boundaries," they also "mark the ways our bodies are open. The body, the self, is porous, receptive, impressionable" (Brown 14). In the novel, this openness to feeling is achieved by re-routing around the flesh and its senses, the traditional channel for feeling, in a way that paradoxically emphasizes that which it bypasses. The sensory hand that connects to the spinal nerve at the base of the brain creating a direct neural connection in which embodied sensation can traffic. The effect is to transform cognitive and conceptual phenomena into physical, sensual experiences.

Nancy Jesser claims that this novel presents "a vision of bodies that are bad for us" (45). Clearly, flesh is an obstacle for human communication/interaction and society. It is something that humans cannot get past, and creates all sorts of problems for how they relate and organize themselves, particularly as they relate between self and other. Oankali sex demonstrates that the way of overcoming the obstacle of flesh is by experiencing the cognitive/mental as inextricable from the physical. This creates a relation, unity, through feeling.

Bypassing of the flesh in order to attain fleshy sensation disrupts the confines of the traditional human and what is considered to be traditional sexuality. This complex imbrication between physical sensation

and mental experience, extends theorizations of the "posthuman," that is, figures who extend the bounds of the traditional human subject by technological, biological, or spiritual modification. Because the sexual experience occurs entirely in the brain, it is easy to assume, as the humans in the novel do, that the experience is entirely a simulation. But rather, the experience reinforces embodied sensation in a way that disrupts traditional concepts of the human. Rather than possessing a body, the mind thrives in the tension between connection and separateness in the flesh. Brown explains that "Flesh... is free of the need for subjectivity... there is freedom in the flesh, in the moments when it is excluded from being marked, as it feels, and responds to, touch" (Brown 11).

Here, separateness is crucial for enabling connection. While sensation, desire, and flesh momentarily dissolve the boundaries of the individual, a distance between self and other maintains an elusiveness that energizes feeling in the flesh. In the novel, this distance can emerge at a moment of direct neural connection. For example, when Lilith asks Nikanj to share its feelings of grief after Joseph's untimely death: "It gave her... a new color. A totally alien, unique, nameless thing, half seen, half felt or... tasted. A blaze of something frightening, yet overwhelmingly, compelling" (Butler 429). Despite their direct neural connection, the description here derives its expressive power on the quality of unknowability, using formations of strangeness or liminality, ("half seen, half felt," "alien," "a new color"). Such a connection can only emerge in the distance between self and other.

In SEX section, the sex act with the Oankali demonstrates two things:

- first, that flesh is an obstacle for human communication/interaction and society. It is something that humans cannot get past, and creates all sorts of problems for how they relate and organize themselves.
- second, as Oankali sex demonstrates, the way of overcoming the obstacle of flesh is by experiencing the cognitive/mental as inextricable from the physical. This creates a relation, unity, through feeling.

Now, in FLESH section, we ask how this obstacle, the flesh, to human connection can also be a solution?

1.3 flesh

1.3.1 revision TODOs

1. **CANCELLED** SEX: MOVE? critical debate on the question of consent Burnett says that issue of consent is major, and hardly addressed. He is disturbed by it, and brings up an association to slavery. The lesson here is the need for affirmative consent, not to go back to the days of atrocity. But this misses the point!

   The question of consent points to a larger issue of how this book relates to black studies. What is the relation of the novel to problematic themes within black studies, to the remnants of slavery? Is it pessimistic or futuristic?

   Mann says it's both pessimistic and futuristic. And that the tension between these two is what allows the novel to trouble questions of consent

2. **DONE** FLESH: revise intro posing flesh as problem

3. **TODO** FLESH: impose new schema of flesh & abstraction Foreclosure Fugitivity Shifting registers Unmappability

   Displacement Volatility Torque Flickering signifiers

4. **DONE** FLESH: reorganize Snorton section, addin unmap

5. **DONE** FLESH: streamline Musser

6. **DONE** FLESH: move media archaeology section here

1.3.2 section overview

Both black fem and media arch offer ways of thinking through materiality, "flesh," that opens up the way we think about surfaces (skin) and bodies (sex).

- Black fem: flesh that is reduced is also imbued with significatory potential.

- Media arch: materiality has bearing on immaterial effects

Black Fem: Foreclosure - denying interiority to offer up other messages that engage without resolving the violence of the pornotrope
Fugitivity - reduction to flesh facilitates chaos of meanings.

In a fugitive state, meaning becomes unstable and in conflict. How does this emerge on the surface?

- Unmappability - where depth and surface are flipped, so meaning

cannot be firmly located.

- Shifting - in the movement between registers, interpretations.

Media Arch:

Forensic materiality - the level of hardware where things are displaced away from the end user.

Flickering signifiers, the relation between levels on the software stack. Leads to a formal materiality.

Volatility - vulnerability of data manipulation at the top of the stack.

Torque - shifting between registers which affects the surface level of formal materiality.

1.3.3 black fem studies, media arch

Could the flesh, which poses a problem for intra-human connection, also offer a solution to this problem? In what follows, I explore two how two very different fields–Black Feminist Studies and Media Archaeology–offer critical methods for deconstructing the relationship between materiality and meaning. Black Feminist Studies explores the concept of the flesh within the history of slavery of racialization, while Media Archaeology explores the materiality of electronic processing and its relationship to interface effects. Both areas of inquiry, though vastly different in the subject of study, share a similar investment in reading into the surface of materiality to see how it might offer new modes of thinking and resistance. The workings of the flesh on the one hand, and of technology on the other, not only helps us to understand the inextricability of the material from the mental, but also offers a possibility for developing social relations based on embodied expereience. These theorizations of materiality, which index a liminal space where meaning is simultaneously ascribed and obscured, will become the ground for my working through the intersections of hardware and software in my next section, *skin*. They will allow me to trace in more detail how the process of reduction to the physical surface simultaneously creates an opportunity for new readings.

Black Feminist Studies tackles a nearly impossible task–to redeploy the flesh, which has undergone a systematic reduction from the body that begins with the history of transatlantic slavery, into a tool of resistence. Critics like

Hortense Spillers, C. Riley Snorton, and Amber J. Musser offer readings of the flesh to parse various racial and gendered processes, a "symbolic order" or "American grammar," in Hortense Spillers words, ascribed to Black bodies over time (68). In her influential essay, "Mama's Baby, Papa's Maybe: An American Grammar Book," Hortense Spillers describes the black body as a stack of "attentuated meanings, made in excess over time, assigned by a particular historical order" (65). The "severing of the captive body from its motive will," which can be traced to the violence of the middle passage, creates four effects (67):

1. the captive body becomes the source of an irresistible, destructive sensuality;
2. at the same time–in stunning contradiction–the captive body reduces to a thing, becoming being for the captor;
3. in this absence from a subject position, the captured sexualities provide a physical and biological expression of "otherness";
4. as a category of "otherness," the captive body translates into a potential for pornotroping and embodies sheer physical powerlessness that slides into a more general "powerlessness," resonating through various centers of human and social meaning. 67

The "stunning contradiction" here is the tension between reduction and signification. First, there is a reduction of the body to its bare physicality, into a material substance for labor and exchange. At the same time, however, this reduction also opens a possiblity for signification, which aspects of sensuality, objectificaiton, otherness, and powerlessness can be layered onto the flesh. Spillers, and thinkers in Black Feminist Studies who build from flesh as the "zero degree of social conceptualization," name this simultaneous reduction and accumulation of meaning "pornotroping" (Spillers 67). This critical move is about taking what has been a method of reduction, what has been a tool for appropriating the complexity of real world objects for the purpose of exploitation, and using that to instead seek out moments of obfuscation, a kind of diversion from or forclosure to objectification without denying objectification. These strategies are rooted in ways of reading materiality, in the ways that Black Feminist Studies have discovered within the violent history of the Black flesh some kind of resistance, which is not quite empowerment, but which is also not subordination. Rather, it approaches materiality as something slippery, shifting, which confuses rather than resolves meaning.

With quite different political focus, thinkers in Media Archaeology like Matthew Kirschenbaum and N. Katherine Hayles offer deep readings of digital media and technological processes to tease out the role of physical aspects, such as hardware and software stacks, and how they produce seemingly immaterial surface forms. For Hayles, digital materiality is a way of bringing the body into computation. Her research traces "how information lost its body," that is, how information processing, the calculation and manipulation of symbols, reveals an imaginary of the body and the experience of embodiment that is continually displaced. Hayles's work is situated within a destabilization of Liberal Humanism's prioritization of mind/rationality over body/emotions in Englightenment thinking and how this perpetuates into the mid-20th century ideologies about information versus instantiation, code versus hardware.[3] Her work resists the idea of digital immateriality, which has been in production since the emergence of computing technologies in the mid-20th century, and is famously articulated by Media Studies theorist Friedrich Kittler:

> The general digitization of channels and information erases the differences among individual media. Sound and image, voice and text are reduced to surface effects, known to consumers as interface. Sense and the senses turn into eyewash. Inside the computers themselves everything becomes a number: quantity without image, sound or voice. *Grammophone* 1

Working to unflatten the stream of zeroes and ones, Hayles disarticulates digitality from materiality which, she argues, extends liberal humanist ideology into the "posthuman," where a dominant, unmarked rationality is privileged over embodied experience and especially, embodied difference. Whereas the liberal humanist subject is characterized by classical mind/body divisions and hierarchies that posit embodiment as separate from and subordinate to intelligence, in which the rational mind *possesses* a body, the postuman is characterized by informational patterns that *inhabit* a physical vessel, such as a body or a machine. According to Hayles, this progression from possession to inhabitation suggests that the next move will be to transcend the material realm altogether, as consciousness can be uploaded to a virtual space where life itself is infinite. As Hayles explains, "Information, like humanity, cannot exist apart from embodiment that brings it into being as a material entity

[3] Hayles's influential text, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (2000), lays out the "waves of cybernetic development," that is, the development of systems theory among prominant information and communication theorists like Norbert Wiener, John von Neumann, Claude Shannon, and Warren McCulloch (2).

in the world; and embodiment is always instantiated, local, and specific" ("Virtual Bodies and Flickering Signifiers", 1993, 91).

While both Black Feminist Studies and Media Archaeology are interested in the surface effects of materiality, they offer distinct perspectives on the collision between these effects and their meaning. Drawing from Spiller's concept of the pornotrope in black flesh, Snorton poses racialization as a conceptual, "unmappable" phenomenon. Black Feminist thinkers following Spillers plumb the depths of the surface to posit ways that meaning cannot be firmly adhered to materiality. Media Archaeology theorists, by contrast, deconstruct what appears to be immaterial by situating it as a formal production, relying on distinctly physical processes. In what follows, I explore how these two perspectives together might offer a radical re-thinking for how technological contexts might mediate embodied and conceptual experience. By revising assumptions of digital media as insubstantial or immaterial, existing primarily as an effect on a screen, these theorists open avenues for thinking through the effects of physicality throughout technological systems.

1.3.4 black feminist studies: foreclosure, fugivity, unmappability

From black feminist studies, I begin with the concept of "foreclosure," which builds from Amber J. Musser's instruction that "to think with the flesh" involves "hold[ing] violence and possibility in the same frame" (12). Musser's critical readings of "fleshiness" in Spiller's pornotrope pushes against trends in Afropessimism that take the pornotrope as a foreclosure of black subjectivity. Rather, Musser explores how foreclosure, such as the denial of access or knowledge, offers possibilities for new modes of relation. Drawing from Alexander G. Weheliye's argument about the imbrication of sex and domination, Musser's emphasis on fleshiness brings to the surface relations that are in tension with the desire to dominate. Following Weheliye, she affirms that "turning to the violence of the pornotrope allows us to see the radical potential of excess without flattening the violence at its core" (*Sensual Excess* 9). As an example of this "excess," Musser offers up a reading of Lyle Ashton Harris's self-portrait as Billie Holiday. Her reading of the photograph surfaces a subject whose inaccessibility is challenged with an excess that depicts hunger as a mode of relation. Musser explains that Harris's open mouth, for example,

> tells us nothing of Holiday or Harris, but it reveals a sensuality or mode of being and relating that prioritizes openness, vulnerability, and a willingness to ingest without necessarily choosing what one is taking in. This is not the desire born of subjectivity in which

> subject wishes to possess object, but an embodied hunger that takes joy and pain in this gesture of radical openness toward otherness. 5

Forclosing access to the subject's interiority, the shiny surface of the photograph opens other relational possibilities. A reading of hunger on this surface refuses what Musser describes as "the underside of the scientific/pornographic drive toward locating knowledge in an 'objective' image" ("Surface-Becoming" par. 2). This reading engages (without resolving) the inescapable violence of the pornotrope, the desire for access, and its foreclosure.

Foreclosing access to interiority creates a state where meaning is fugitive, where bodies slip in and out of signification. The concept of fugitivity, or escape, is based on a condition of black bodies which have been designated as a commodity have undergone a reduction into flesh, where they become exchangable with other bodies or commodities of equal value, a state that C. Riley Snorton calls the "fungible." Snorton then makes the incisive argument that this fungibility of black flesh turns bodies into "malleable matter," enabling a fugitivity from markers of sex and gender (20). He illustrates this process with narratives of fugutive slaves, such as the story of Harriet Jacobs, whose escape from slavery in 1842 is documented in *Incidents in the Life of a Slave Girl* (1861). Snorton explains how Jacobs's "blackening" of her face with charcoal endowed her with a level of "fungibility, thingness" to pass as a man, even deceiving those who knew her well (Snorton 71). As oppposed totraditional racial "passing" that assumes a degrees of whiteness, the amplification of blackness in the flesh, which reduces it to a commodity value, creates a "gender indefiniteness" that enables escape (56). Black flesh thus, but undergoing a reduction, enables an escape from signification that simultaneously opens the potential of signification. This fungibility creates an almost chaotic state in which the black body suceptible to multiple mappings of meaning, and can therefore slip in and out of signification.

In a fugitive state, meaning that is unstable and in conflict emerges in certain "surface effects." To illustrate one of these effects, Snorton offers up an example of the daguerrotype, an early photographic technology that involves using chemicals on silver plates. Snorton explains that the dagguerotype offers "a visual grammar for reading the imbrications of 'race' and 'gender' under captivity" (40). It does so by flipping expectations about surface and depth: here, rather than perpetuating the idea that depth exists below the surface, the surface becomes a ground for the layering of depth. Snorton describes the effect of this this flip as an "unmappability" in which racialization takes place:

> . . . the daguerreotype provides a series of lessons about power, and racial power in particular, as a form in which an image takes on myriad perspectives because of the interplay of light and dark, both in the composition of the shot and in the play of light on the display. That the image does not reside on the surface but floats in an unmappable elsewhere offers an allegory for race as a procedure that exceeds the logics of a bodily surface, occuring by way of flesh, a racial mattering that appears through puncture in the form of a wound or covered by skin and screened from view. 40

The physical material of the image, that is the silvered copper plate of the daguerreotype, at once solidifies its ground and indexes an ambiguous space, what Snorton describes as the "unmappable elsewhere." The image of the daguerrotype, which changes according to angle and lighting, evokes the condition of racialization as "a procedure that exceeds the logics of a bodily surface" while nonetheless adhering to that surface, "a racial mattering that appears through puncture." Snorton's curious use of the word "puncture" here revises Roland Barthes's concept of the "punctum," or being "pierced" by a detail of the photograph (*Camera Lucida* 27). Unlike Barthes's punctum, one cannot locate the image at a specific point on the copper-plate. That the image resists stability is crucial for undersanding the way that the physical registers interact with symbolic ones. The meeting between this liminal space of the image's visual content and its silver-plated copper ground offers another perspective for understanding the collision of flesh and racialization.

Another related surface effect is what Musser describes as a shifting between registers of interpretation. Musser demonstrates this surface effect in her reading of the painting *Origin of the Universe 1* (2012), by artist Mickalene Thomas, whose depiction of a female vulva evokes French painter Gustave Courbet's *Origine du Monde* (1866). In Thomas's piece, the vulva is black and encrusted with rhinestones, creating a brilliant surface which Musser claims is a "formal strategy of producing opacity" (*Sensual Excess* 48). While this work, like Harris's citation of Billie Holiday, instrumentalizes the opacity of the surface as a means of foreclosing access to interiority, it also multiplies the potentiality of readings. Here, the foreclosure of interiority works alongside a more pronounced subtext of objectification about the commodification of the black female body. Musser points to the rhinestones, which function simultaneously on two registers: first, their flashiness "as a reminder of the long association between black people and the commodity" (*Sensual Excess* 50); and second, as a brilliance that evokes wetness, suggesting

sexual pleasure. Both possibilities exist not only side-by-side, but are in tension with one another:

> Thinking the rhinestone as a trace or residue of Thomas's wetness and excitement allows us to hold violence, excess, and possibility in the same frame. Even as the source is ambiguous, the idea that rhinestones might offer a record of pleasure—-pleasure that is firmly constituted in and of the flesh—-shows us a form of self-possession. This self is not outside of objectification, but its embellishment and insistence on the trace of excitement speaks to the centrality of pleasure in theorizations of self-love. *Sensual Excess* 63

While the significatory system that commodifies the black vulva is inescapable, this objectification exists alongside a production of pleasure. This surface whose opacity seems to insist upon itself facilitates a shift between theses registers. It is not just that these readings exist simultaneously, or side-by-side, but that they enable a movement, or a shift, between one and the other, like a shifting between frames. This brilliant surface enables one to apprehend this movement from one frame to another, from "violence", to "excess," and finally, to "possibility."

1.3.5 media arch: volatility & torque

In what follows, I will explore some of the parallels between Black Feminist Studies and Media Archaeology. The first parallel has to do with the concept of displacement, which I argue is related to that of foreclosure. In Media Archaeology, displacement refers to the sequestering of electronic processing and computer hardware from the end user. I take this term from Matt Kirschenbaum, who argues that "Digital inscription is a form of displacement. Its fundamental characteristic is to remove digital objects from the channels of direct human intervention" (86). Kirschenbaum offers the term "forensic materiality" to refer to this level of computer hardware. On this level, materiality consists of the physical traces on a hard drive, specifically, of of one of two (binary) marks on a magnetized surface, a north polarity signifying "1", or a south polarity signifying "0". Examining these binary digits, or "bits," through magnetic force microscopy, Kirschenbaum notes that each one appears as a unique trace:

> The bits themselves prove strikingly autographic, all of them similar but no two exactly alike, each displaying idiosyncrasies

> and imperfections–in much the same way that conventional letterforms, both typed and handwritten, assume their own individual personality under extreme magnification. 62

That electronic data is, at its root, physical, shatters the illusion of digital immateriality, that digitized objects and data are homogenous in quality, a stream of code all the way down. In reality, each object on the screen exists in a physical manifestation, whose displacement from human engagement forecloses knowledge or access to these materialities.

To trace the transformations of these physical elements as they travel up the software stack, N. Katherine Hayles offers the concept of "flickering signifers." Here, she brings Jacques Lacan's "floating signifier," the idea that a word does not refer to a stable referent, but "floats" above a text and attains its meaning through a play of difference against other words, to bear on the interplay between the immateriality of the screen and the materiality of the computer hardware. Rather than destabilize meaning and truth within a poststructural critique of knowledge paradigms, the flickering signifier destabilizes the illusion of immateriality by tying it (however tenuously) to physcial signals that move through the software stack. Hayles explains that while apparently immaterial text and objects have a "tendency toward unexpected metamorphoses, attenuations, and dispersions," they are grounded in a physical reality ("Virtual Bodies and Flickering Signifiers", 1993, 76). Between

> As I write these words on my computer, I see the lights on the video screen, but for the computer the relevant signifiers are magnetic tracks on disks. Intervening between what I see and what the computer reads are the machine code that correlates alphanumeric symbols with binary digits, the compiler language that correlates these symbols with higher-level instructions determining how the symbols are to be manipulated, the processing program that mediates between these instructions and the commands I give the computer, and so forth. A signifier on one level becomes a signified on the next higher level. "Virtual Bodies" 77

Hayles's description of the flickering signifier, what she calls a "flexible chain of markers" materializes the various levels of transformation that digitized inscription must undergo in order to reach the level of the screen (*Posthuman* 31). First, physical traces on a magnetic surface are mapped into low-level machine languages, which based on numeric patterns and are illegible to human readers. Then, these patterns are translated into Assembly languages

that pertain to the computer's Central Processing Unit (CPU), the main processor that executes instructions, arithmetic, and logic which form the bedrock of computational processes. Finally, as data moves up the stack, it abstracts into high level programming languages like Python and JavaScript and their effects on the screen, which humans interact with in the form of the Graphical User Interface (GUI). In this way, the objects on the screen rely on the physical materialities of underlying computational processes, which are designed to remain inaccessible to human observation.

To counter the misconception of "screen essentialism," an assumption that objects on the screen appear, disappear, and move without a physical origin, Kirschenbaum offers the concept of "formal materiality" which challenges "the illusion of immaterial behavior" (Kirschenbaum 11). While forensic materiality consists of physical inscriptions, such as magnetic traces on hard drives, formal materiality describes these traces as they are computed up the software stack, through levels of programming languages toward specific interface effects on the screen. It describes not only the visual and conceptual phenomena such as screen display and appearance, but also the way that these are deliberately produced to reinforce fluidity and ephemerality. Kirschenbaum explains that as data moves up the stack, it is continually reproduced and refreshed to fix errors and idiosynracies that occur during transmission. As a result, formal materiality on the screen is a "built" and "manufactured" phenomenon, "existing as the end product of long traditions and trajectories of engineering that werer deliberately undertaken to achieve and implement it (137). He likens this process of data normalization to "allographic reproduction" and older technologies like the telegraph that use relay systems to reinforce signals over long stretches of transmission (136). As data moves through electronic processing, signal "reinvigoration" refreshes and standardizes it through approximation rather than exact copying.

Formal materiality facilitates physical effects, "screen effects." Although these screen effects function as a buffer between the user and the digital inscription, there is in actuality an inverse relationship between digital abstraction and tactile manipulation. The higher that data climbs up the levels of abstraction, the more manipulable it becomes, a state which Kirschenbaum calls "digital volatility" (140). By manipulating the graphical user interface, for example, by dragging and right clicking on items, users can move, duplicate, or delete large quantities of data. Kirschenbaum explains this "dynamic tension... between inscription and abstraction, digitality and volitality" makes formal materiality more susceptible to movement and change than physical inscription, which remains inaccessible. Moving away from the inscription, is a move toward something that users can handle and "touch,"

as anybody who has dragged a file to their Desktop's trash can confirm.

As a surface effect, volatility is also animated by another force, a more subtle one, which operates in the shifts between code and its abstraction. Kirschenbaum describes this force as "torque," or a "procedural friction or perceived difference... as a user shifts from one set of software logics to another" (13). The concept of torque, which Kirschenbaum borrows from physics, materializes the shift from one coding logics to another. Typically in physics, objects rotate along their pivot point, where its distributional weight is zero.[4] Torque, however, is characterized by an oblique movement, such as a rotational movement. Torque combines energy from two directions, first, from the external force acting upon the object, and second, from the relation between the point of contact on the object and its pivot point, or the point along the object where it can be balanced. Torque, therefore, measures a force that relies on distance between the point of contact the object's center. Applied to media, this term refers to the gap between one signficatory system and another, such as programming code and its executed state, as data travels up the software stack.

In Black Feminist Studies, these critics find ways of reading methods of resistance, such as unmappability and shifting registers, from the reduction of the body into flesh. This reduction creates surface effects in which multiple registers of meaning move to avoid resolution. Here, the flattening into surface forecloses access to an interiority and opens the possibility of fugitivity, where meaning escapes into irresolvable or incongruent registers. In these registers, meaning is layered upon meaning, clash or are in conflict. Theses "surface effects" of the flesh relate to "screen effects" of electronic processing as data moves up the software stack. Each stage of data transformation instantiates a formal materiality, a surface effect which simultaneously depends on and obscures the levels below. This displacement is energized by a sense of volatility, in which data at the higher levels is more manipulable than those below, and by a sense of torque, in the shifting between software registers and objects, between the signifier on one level and signified on another. This chain of transformations end at the screen, where the end user experiences

[4]For example, one could balance a twelve-inch ruler by placing a finger under the sixth inch. By applying some force to the center of mass, the object would not pivot, but move in a linear direction, either up or down, or sideways, depending on the direction of the force. However, if external force was applied along either side of the center, say at the second inch, the object would pivot. Its direction would then be determined by its pivot point, whether that be its center of mass or the point where the object is affixed to another object, if the ruler were nailed to the wall, for example. In this case, the ruler would pivot around this point of attachment, and the force and direction of its pivot would be measured as "torque."

them in haptic engagements. In the next section, I will demonstrate how these concepts of foreclosure, fugitivity, and unmappability in Black Feminist Studies engage with those of flickering signifiers, volatility, and torque in Media Archaeology to read the haptic effects and its relationship to racialization in a hypermedia literary work.

1.4 skin

1.4.1 revision TODOs

1. **DONE** SKIN: impose new schema There is a tension between control and connection playing through the work. This tension emerges in "surface effects," like haptics.

   Reading the underlying code deepens the interpretion of surface effects. Of conceptual objects that elude our manual control. Moving from one register (conceptual/logical) to another register (sensual/tactile).

   (a) air.html -> multiplicity of movement, intractible movement

   - surface effect: challenges tactile ability, objects moving toward and against like magnets.
   - The way the object move on the screen is influenced by the coding logics below the surface. if/else statement in code reflects duality of movement (either toward or against) and of the objects (there are two figures).
     - a simple if/else directive. **Conditional statement is a reduction** of choices, of nuance to an either/or. All movement is defined by a very simple yes or no condition. **Something that is binary and very controlled can enable all kinds of movement**. There is an escape here, something fugitive, in the way that **their bodies eludes the mouse**. They cannot be caught.

   -> Racialization:

   - But there is also a reduction here, the two bodies are reduced to small images, where the differences between them are visible but minor, in shape and color.

   (b) control.html -> lagging movement, uncontrollable

   - surface effect: user manually turns Harvey's head, gets bits of alt text.

- this piece is about control – it plays with the control of the female body in the haptics that are sensual but laggy. The haptics indicate that full control is not possible, there is something intractible about it.
- there are multiple registers here, from the surface effects to the code. The underlying code contains the full message. The surface only shows parts which are incoherent.
- the lack of control results from what's happening at the level of software. Torque.
- Racialization: intractible control. Most likely by Harvey.

(c) breath.html -> limitations of medium as enabling constraint

- foreclosure of the software and hardware stack can also reinforce physicality of medium.
  - Love notes deliberately hidden in the code, meant to be displaced and to be discovered.
- compare with dialogue between them in "WHISPERING WINDOWS", which is limited to just text, but at two different levels (public and private) and imbued with tone, intimacy, reassurance.
  - The limitations of the communication medium facilitate a sensuality. The limitation reinforces sensuality of the language, of the utterance and of the tone.

(d) words.html -> flash foreclosure

- Flash media is totally inaccessible, made up of machine code that is unreadable to human eyes.
- we can engage with it only through abstraction, where objects are separated into components, into shapes, sounds, and movements.
- What I call a total foreclosure, because underneath is completely incomprehensible, a bytestream.

(e) reduction of the black body

- One surface effect is to turn depth of real physical objects in the world into surface.
- Love is expressed in surface forms, "pixellust" or "ASCIIlust" creating a "home for us" "in the network".
- reduction to surface flattens aspects that might be obstacles in the real world. Geography, culture, race.

-> this is the unmappable surface, where the signifier floats free of its referent in the physical world. We cannot locate with precision the skin color, hair color, country, as expressed on the screen.

2. **DONE** SKIN: conclusion

1.4.2 *skinonskinonskin*

1. intro Now, I turn to *skinonskinonskin* (1999), a work of "net art" created by Auriea Harvey and Michaël Samyn, under their collaborative artist's name *Entropy8Zuper!*. *skin* documents the inception of their love affair, which began in an internet chat room and evolved into a digital correspondence, or "digital love letters" ("*skinonskinonskin*" *Net Art Anthology*). These letters took the form of individual web pages, designed by Samyn and Harvey, containing notes, images, and interative elements using early web tools and animation software, much of which is now defunct or unsupported. The Rhizome.org *Net Art Anthology*, where the work is preserved with emulator software, describes it as a "complex portrait of an artistic and romantic relationship that shows that online intimacy is as deeply felt, embodied, and full of risk and reward as any other form" ("*skinonskinonskin*").

   skin takes part in a body electronic work called "Electronic Literature," which is now practically inaccessible with modern technology. Electronic Literature, which spans several subgenres, like hypertext fiction, network literature, interactive fiction, and generative text share a common interest in expressing and exploring digitality as an aesthetic. This work, like many in Electronic Literature, is inaccessible to modern web browsers. Though most of it is written in HTML (HyperText Markup Language), which continues to be the default language for the web, it is animated by depreciated versions of JavaScript code and now obsolete Flash software. Besides the outdated code, it also has an incompatibility with platform, the Netscape 4 browser, which could run on both MAC and PC systems (rendering pages on both Harvey's Mac and Samyn's PC) at the time. Netscape's decline in the late 1990s and early 2000s brought with it the depreciation of HTML and JavaScript elements that characterized its associated web authoring tools and practices.

   In what follows, I embark on a close reading of the work's "surface effects," that is, the appearance and interactivity of objects and words on the screen. I emphasize how these elements facilitate a haptic engagement, a sense of touch and movement through the user's mouse. Then, I turn to the underlying source code, the HTML, JavaScript, and Flash files, to examine how the coding layer, another level of

formal materiality, might influence the reading of the work's surface effects. Here, I explore how programming concepts and structures might enhance the reading of visible and interactive elements on the screen. I find that the different registers of abstraction across surface effects and code suggest a tension throughout the work between control and communication.

2. air.html First, I examine "air.html" page, which depicts an animation of two small figures floating in black space. The two figures, which represent the Samyn and Harvey, float in a horizontal, flying position over a field of a field of rotating green lines, which evoke a rolling, cyber-landcape. Each figure can be moved by the cursor as it pans across the screen, attracting them like magnets. While they slide effortlessly in all directions, coaxing precise movements from the figures requires precise mouse manipulations that challange the user's tactile ability. By using slow movements, the user can bring the individual bodies into contact, but they can never cross each other, or cross to the other's side of the screen. Samyn's body remains confined to the left, while Harvey's is to the right. [SEE GIF] The initial illusion of free floating, therefore, is deceiving.

   [include gif of air.html]

   This animation is defined in the source code of the page, in a series of functions written in JavaScript, the standard language for defining interactive elements on web pages. Below is an excerpt of one JavaScript function called `flyMouse()`:

   if (mouseX < halfW)

   {

   var mFactor = 0.1;

   var aFactor = 0.01;

   }

   else

   {

   var mFactor = 0.01;

   var aFactor = 0.1;

   };

   ...

dMove('flyingmL','document.',mLeft + thisXDiff*mFactor,mTop + thisYDiff*mFactor);

. . .

dMove('flyingaL','document.',aLeft + thisXDiff*aFactor,aTop + thisYDiff*aFactor);

The direction and speed of the bodies' movement hinges on the if/else statement above. An "if/else" statement, or conditional statement, is a core construct in programming, which exists across many programming languages. The conditional statement determines the "control flow," or the order of operations, in a block of code based on whether a specific condition is true or whether it is false. Underlying the if/else statement is the Boolean data type, which can be either `True` or `False`. Checking whether a condition is `True` or `False` enables programmers to write code that makes decisions, so to speak, to execute the relevant block of code that matches the condition. For example, an email inbox will display unread emails in bold formatting depending on whether or not that email has been opened by the user. Behind the scenes, an if/else statement checks if the email has been opened, and if it has, the email will render with regular formatting, and if it has not, it will render in bold formatting. In the if/else statement on "air.html," the movement of the bodies is conditional on their distance between the mouse and the original positioning of the bodies on either side of the screen. Depending on this distance, the magnetic force for each of the bodies is multiplied against a factor of .1 or .01. This results in a stronger movement from Samyn's body when the mouse is near Samyn's original position on the left side of the screen, and a stronger movement from Harvey's body when the mouse is on the right half of the screen, near Harvey's original position. The conditional statement is thus a reduction of possible choices to an either/or, where all movement depends on a simple yes or no condition.

The binary nature of this conditional statement–it can be true or it can be false, and there are two resulting actions–reflects an animation that is, at its core, about a dual force. But this dual force, either attraction or repulsion from the mouse, enables movement across all directions of the screeen. The binary structure of the if/else statement, in which bodies move toward and against each other, thus faciliates a multiplicity of movement. In that movement, there is something intractible, something fugitive, about the way that the figures are drawn to but resist being controlled by the mouse. These figures, which have been reduced to two small pixelated images of Harvey and Samyn's naked bodies. Here, the movement by the hand and

the oppsitional constraints which the user comes up against, engage the transformations that take place in the level of code.

3. control.html If "air.html" plays with binary movement, another page, "control.html," plays with lag. The page consists of a monochrome green image of Harvey's head, which rolls from side to side in the direction of the user's cursor as it pans over the image. As the cursor moves, exposing Harvey's face at different angles, it also displays peices of "alt-text," short for "alternative text," triggers the displays descriptive text meant to stand in place of the image, for accessibility reasons and in the case that the image fails to load. The alt-text here contains words like "go" "believe" "ocean" and "mind," depending on the cursor's location over the image. The tactile qualities of this page, in which the user manually turns Havery's head from one side ot another with the cursor-as-hand, are further emphasized by the cursor itself, which appears as a pointing hand.

   [INSERT GIF]

   Looking into the source code, a couple of interesting things emerge.

   <AREA SHAPE=RECT ALT="i" HREF="#" COORDS="0,0,8,142" onMouseOver="strokeimage.src=stroke1.src ; window.status='i' ; return true">

   <AREA SHAPE=RECT ALT="believe" HREF="#" COORDS="8,0,15,142" onMouseOver="strokeimage.src=stroke2.src ;window.status='believe' ; return true">

   <AREA SHAPE=RECT ALT="in" HREF="#" COORDS="15,0,22,142" onMouseOver="strokeimage.src=stroke3.src ;window.status='in' ; return true">

   <AREA SHAPE=RECT ALT="it" HREF="#" COORDS="22,0,30,142" onMouseOver="strokeimage.src=stroke4.src ;window.status='it' ; return true">

   <AREA SHAPE=RECT ALT="you" HREF="#" COORDS="30,0,38,142" onMouseOver="strokeimage.src=stroke5.src ;window.status='you' ; return true">

   <AREA SHAPE=RECT ALT="created" HREF="#" COORDS="38,0,46,142" onMouseOver="strokeimage.src=stroke6.src ;window.status='created' ; return true">

   <AREA SHAPE=RECT ALT="it" HREF="#" COORDS="46,0,54,142"

onMouseOver="strokeimage.src=stroke7.src ;window.status='it' ; return
true">

<AREA SHAPE=RECT ALT="in" HREF="#" COORDS="54,0,63,142"
onMouseOver="strokeimage.src=stroke8.src ;window.status='in' ; return
true">

<AREA SHAPE=RECT ALT="my" HREF="#" COORDS="62,0,69,142"
onMouseOver="strokeimage.src=stroke9.src ;window.status='my' ; return
true">

<AREA SHAPE=RECT ALT="mind" HREF="#" COORDS="69,0,78,142"
onMouseOver="strokeimage.src=stroke10.src ;window.status='mind' ;
return true">

<AREA SHAPE=RECT ALT="my" HREF="#" COORDS="79,0,88,142"
onMouseOver="strokeimage.src=stroke11.src ;window.status='my' ; return
true">

<AREA SHAPE=RECT ALT="mind" HREF="#" COORDS="88,0,97,142"
onMouseOver="strokeimage.src=stroke12.src ;window.status='mind' ;
return true">

<AREA SHAPE=RECT ALT="cannot" HREF="#" COORDS="97,0,105,142"
onMouseOver="strokeimage.src=stroke13.src ;window.status='cannot'
; return true">

<AREA SHAPE=RECT ALT="let" HREF="#" COORDS="105,0,113,142"
onMouseOver="strokeimage.src=stroke14.src ;window.status='let' ; return
true">

<AREA SHAPE=RECT ALT="it" HREF="#" COORDS="112,0,121,142"
onMouseOver="strokeimage.src=stroke15.src ;window.status='it' ; return
true">

<AREA SHAPE=RECT ALT="go" HREF="#" COORDS="121,0,131,142"
onMouseOver="strokeimage.src=stroke16.src ;window.status='go' ; return
true">

<AREA SHAPE=RECT ALT="the" HREF="#" COORDS="131,0,140,142"
onMouseOver="strokeimage.src=stroke17.src ;window.status='the' ; return
true">

<AREA SHAPE=RECT ALT="ocean" HREF="#" COORDS="140,0,149,142"
onMouseOver="strokeimage.src=stroke18.src ;window.status='ocean'
; return true">

<AREA SHAPE=RECT ALT="the" HREF="#" COORDS="149,0,155,142" onMouseOver="strokeimage.src=stroke19.src ;window.status='the' ; return true">

<AREA SHAPE=RECT ALT="waves" HREF="#" COORDS="155,0,160,142" onMouseOver="strokeimage.src=stroke20.src ;window.status='waves' ; return true">

<AREA SHAPE=RECT ALT="its" HREF="#" COORDS="160,0,165,142" onMouseOver="strokeimage.src=stroke21.src ;window.status='its' ; return true">

<AREA SHAPE=RECT ALT="a" HREF="#" COORDS="165,0,174,142" onMouseOver="strokeimage.src=stroke22.src ;window.status='a' ; return true">

<AREA SHAPE=RECT ALT="vision" HREF="#" COORDS="174,0,181,142" onMouseOver="strokeimage.src=stroke23.src ;window.status='vision' ; return true">

The surface of the peice only reveals part of the full message. First, while most pages contain an author, title, and date, this one only contains a title, "you:controlMe." It seems that the page was created by Harvey addressing a message for Samyn to "control" her by moving her face back and forth across the image. Second, the source code reveals that the animation consists of 23 images, each of which is associated with a specific alt-text and coordinate. Here, the full message of the alt-text, which is hidden from the screen, appears in a list like formate: "i believe in it you created it in my mind my mind cannot let it go the ocean the waves its a vision." Each of these images and its associated message is tied to a specific coordinate on the screen's surface, which activates the relevant image and alt-text. Thus the effect of Harvey's head moving across the screen is in reality an image that has been activated by the mouse on a specific coordinate and has been superimposed on the screen. Rather than represent a smooth movement from side to side, Harvey's head takes little jumps from one position to another. The effect is a slight lag, a series of fleeting pauses that intensify Harvey's direct gaze into the camera.

When we examine the source code, we see that this peice is about control, specifically, with control over the female body. It deploys layers of foreclosure, where the source code contains the full message and workings of the animation, to create a haptic effect that is sensual but laggy. The haptics with the mouse indicate that full control of

Harvey's head and full access to the message is not possible, there is something intractible about it. What's happening at the level of code influences this screen effect.

4. breath.html Below the overt narrative of surface effects, lies another narrative within the source code, where hidden messages mix natural language with computer language to make verbal exhortations of love. On one page, "breath.html," the surface effects consists of an animated male torso that swells slightly and emits a breathing sound when the mouse pans over it, accelerating with each swipe of the mouse. The effect is sensual, tactile, and auditory. In within the the HTML and JavaScript that defines the content and animations in the source code are words meant only for human eyes: a list of "whispers," romantic protestations like "i will love you forever" and "i want to breath you." Unlike "control.html," these messages do not manifest directly on the browser, but only appear in the pages's source code: whispers[0] = "breath me";

   whispers[1] = "i will love you forever";

   whispers[2] = "skin";

   whispers[3] = "skin on skin";

   whispers[4] = "skin on skin on skin";

   whispers[5] = "implode";

   whispers[6] = "soft";

   whispers[7] = "slow";

   whispers[8] = "can you feel me?";

   whispers[9] = "touch me";

   whispers[10] = "one more cigarette";

   whispers[11] = "i am so open";

   whispers[12] = "i want to feel you inside of me";

   whispers[13] = "smoke";

   whispers[14] = "i want to breathe you";

   whispers[15] = "we are smoke";

   whispers[16] = "yesss";

   whispers[17] = "deeper";

whispers[18] = "i am disappearing";

whispers[19] = "warm"; Musser describes foreclosure as an overflow of surface effects that precludes access below the surface. She describes the effect of foreclosure as encouraging alternative modes of relationality. This peice not only demonstrates how computer screens inherently contain a level of foreclosure that masks inaccessible elements in the source code. It also suggests that displacement opens further channels for communication. Here, the works title, in the source code. It also suggests that displacement opens further channels for communication. Here, the work's title, "skin on skin on skin," is reserved for the curious user to come and find them in the source code.

5. whispering windows The foreclosure of the surface can open up sensual possibilities for communication across electronic media. An early chatroom conversation between Samyn and Harvey, published on their website under the title "Whispering Windows," uses two modes for communication. Samyn, under the username *zuper*, writes under a private mode, while Harvey, under *womanonfire*, uses the public one. If there are others in the chatroom, they have been removed from the transcript. The chat records their frustrated attempts to connect video and sound:

   womanonfire: the sound is a bit distorted with these things
   zuper: (private) yes
   womanonfire: if no one was around me here
   zuper: (private) the image is distorted too
   womanonfire: i would speak to you
   zuper: (private) but that's ok
   womanonfire: yes!
   womanonfire: these are all part of our relationship
   womanonfire: these limitations
   womanonfire: we must
   zuper: (private) 26 letters, no sound, no image
   womanonfire: learn new ways
   zuper: (private) make DHTMLove to me... `http://entropy8zuper.org/`

   The limitations of the medium, the "26 letters" of the alphabet and their appearance on the screen, are the only material for "making love." These limitations, however, work to emphasize a sense of intimacy

between the conversants. *womanonfire* tends to cut her syntax into pithy expressions like "these limitations" and "we must" that arrest her thought and restart it on the next line. *zuper* responds in "private" mode with gentle reassurances ("but that's okay") and encouragement that sustains and reinforces her thoughts ("make DHTML love to me"), and read like a whisper. Reduced to digital character on a screen, the love affair expresses a strong sense of intimacy and mutuality. It is because of the limitations of the medium, that elements like tone and syntax are magnified and able to portray this level of closeness.

6. words.html Some levels of displacement are so removed that they can only be engaged through abstraction. On example appears on "words.html." This page, created by Samyn on Valetine's Day, 1999, displays a beating heart overlaid with phrases that fly in various arcs from the center. The JavaScript code for this page does reveals the workings of the animation: first, the phrases, which will arc over and around the beating heart, are saved into a list format. Then, a series JavaScript functions accomplishes the following in turn: it selects words from their position on the list, then calculates their trajectory across the screen, then the time limit for their movement, and finally resets their position to restart the loop.[5] Below is an excerpt of the source code (the function `floatWord()`) that defines this animation: function floatWord(thisNumber)

   {

   var randTime = (rand(15) + 5)*1000;

   var thisRand = rand(4);

   if (thisRand == 1) { dMoveStraight('wordL'+thisNumber,'document.',-100-rand(100),rand(stageH),randTime,'wordVal'+thisNumber,'rePos(' + thisNumber + ');',''); }

   else if (thisRand == 2) { dMoveStraight('wordL'+thisNumber,'document.',rand(stageW),-20-rand(100),randTime,'wordVal'+thisNumber,'',''); }

   else if (thisRand == 3) { dMoveStraight('wordL'+thisNumber,'document.',stageW + rand(100),rand(stageH),randTime,'wordVal'+thisNumber,'rePos(' + thisNumber + ');',''); }

[5]The first function, `startMove()`, sets a series of timers that initiate and perpetuate the animation. The second function, `floatWords()`, loops through the list of words and phrases and passes individual selections from this list to the next function, `floatWord()`, which sets the trajectory and timing for their movement. Within this function, a call to `rePos()` repositions the word in a new location, to begin the cycle anew.

else if (thisRand == 4) { dMoveStraight('wordL'+thisNumber,'document.',rand(stageW),stageH
+ rand(100),randTime,'wordVal'+thisNumber,","); }

if (rand(4) == 1) { dShow('wordL'+thisNumber,'document.','visible');
}; }; "words.html" JavaScript, a notoriously complex language by today's standards, was relatively more convoluted in 1999. But even more inaccessible than the code animating the words is that animating the beating heart. The visual and sound effect of its beat is created with Flash, an animation authoring tool that was widely popular in the late 1990s and early 2000s. Flash gained popularity for its ability to deliver relatively advanced graphics (such as video and sound) at a time when media-rich content traveled slowly over the web. Over the last 10 years, however, the development of newer, more efficient and secure animation technologies brought Flash into obsolescence. On December 31st, 2020, the software was officially discontinued, though it had already been functionally replaced with updated versions of HTML and Javascript that could deliver what Flash offered in much more flexible, portable, and efficient ways. This termination, however, made a generation of internet games, net art, and electronic literature nearly completely inoperable. Today, the only way to view Flash content in something like its original context is through plugins or emulators, like the one hosted on *Rhizome.org* that enables viewers to read *skin* through a Netscape 4 window.

[SEE IMAGE/GIF of BEATING HEART]

Leaving aside its obsolescence, Flash code is a highly inaccesible software. This is due to Flash code being a binary code format, unlike text-based code like HTML and JavaScript, which is human-readable and renders in the source code of web pages and in text-editor. If a Flash file is opened in a text editor, it would appear as an incomprehensible stream of obscure characters and symbols, some of which the text editor may recognize, and others which the editor would display as a question mark. For example, the below image displays a flash file (which usually have an ".swf" or ".fla" extention) that defines the sound animation of of the heatbeat:

[IMAGE OF TEXT EDITOR OF OF HEARTBEAT.SWF]

Because this code is unreadable to the human eye, it requires specific authoring software to work with it. A "Flash Decompiler" program, for this purpose, offers an interface for seeing the components of a Flash file without having to work with the machine code layer. In the

below image of one such program, the file is separated into individual components like "sounds," "frames," and "scripts," visible on the left sidebar. The interface here abstracts the machine code so that humans can make sense of it. For example, one can make changes to the animation, such as distort the sound of the heartbeat which is contained within the "frames" component.

[IMAGE OF FLASH DECOMPILER INTERFACE ON "HEARTBEAT.SWF"]

The Flash elements throughout this work, which appear on many of its pages, illustrate the displacement inherent to electronic media. In order to work with Flash media, abstraction is necessary. Objects on the screen are separated into components, into shapes, sounds, and movements. But these components themselves are surface effects. Immediately beneath them is a bytestream, a torrent of symbols and characeters that cannot be read with human eyes. The object can be rendered in with the decompiler is only another kind of surface effect. This is an example of total foreclosure of formal materiality of the technological stack, a kind of foreclosure that points to physicality of the surface.

7. reduction of the black body Another surface effect is to turn the depth of real physical objects in the real world into surface. This especially includes physical objects or realities that create communicative barriers. In another online chat, Samyn and Harvey revel in the intimacy that this mode of communication enablesw, even while struggling with the limitations of the audio and video and video connection:

    womanonfire: i wonder wht your voice is like
    zuper: my voice?
    zuper: let's try
    zuper: it's weird to talk in a silent office at night
    womanonfire: yes
    womanonfire: i can just barely make you out
    womanonfire: how fitting
    womanonfire: it sounds so far away but you feel so close
    zuper: yes
    zuper: i am close
    zuper: i don't understand myself
    womanonfire: i will write you a very long letter tonight

zuper: I'm falling in love with a 160x120 pixel video...

zuper: Yes please write me a long letter

womanonfire: it is dificult for me here right now

zuper: why is it difficult?

womanonfire: i was just about to write one about this

womanonfire: because i love you

zuper: ...

womanonfire: seems so

womanonfire: strange

womanonfire: maybe it is lust

womanonfire: i cant tell anymore

zuper: pixellust?

womanonfire: right

zuper: I my case only ASCIIlust...

womanonfire: but i want to make a home for us

womanonfire: in the network

The relationship between *womanonfire* and *zuper* is completely constrained by restrictions. That *womanonfire* "can just barely make...out" *zuper* is "fitting" because the physical barriers that separate their connection are considerable. Yet, *zuper* responds that he feels "so close" despite his distance, a phenomenon which he "doesn't understand [himself]". Perhaps the reason can be traced to the surface effects of their communication, to the objects on the screen which enable a "pixellust." That they question whether the connection is really love, or if it's lust reinfoces a magnetic quality that this physically tenuous connection, which is full of network lags and failures, can enable. Later on in the conversation, the strength of their surface connection, which overcomes geography, seems to overcome additional obstacles like language difference and race:

zuper: (private) I realised today that I have never been in love with somebody who doesn't speak Dutch before.

womanonfire -> zuper: i have never been in love with someone in another country before

zuper: (private) I have never been in love with someone with green dreadlocks before

zuper: (private) let alone black skin

womanonfire -> zuper: yes i hope you wiwll like my skin
zuper: (private) I already do.
womanonfire -> zuper: :) `http://entropy8zuper.org/`

The question of race becomes one in a list of other attributes like hair color or speaking another language. Here, the reduction of their communication to letters on a screen flattens physical aspects that would otherwise be obstacles. This flattening of attributes like hair and skin color severs them from their location on the physical body, instead transposing them to words on a screen. Separated from the referent, they flicker atop the highest level of computational abstraction. Loosened from its physical manifestation, these attributes reside somewhere like Snorton's "unmappable elsewhere," a place that cannot be pinned down. This surface effect, that of reduction, creates a tenuous connection between the signifier and the signified. This tenuous connection, while buffeted by concerns about connectivity that plague the chat, is nonetheless made possible by network technologies.

8. conclusion How does race operate on the same register as hair color and language? Like the bypassing of flesh in "Sex," the foreclosure of depth paradoxically creates a flattening effect that reinforces physicality of the uppermost layer, of the surface, the "skin."

   Through vastly different methods, both *Dawn* and *skin* explore a kind of desire that bypasses the physical body with the effect of magnifying embodied sensation. In *Dawn*, the body proves to be an obstacle for communication, for the gap between bodies stokes a debilitating fear of the other that manifests as racialization. This obstacle is temporarily overcome in the neural connection that the Oankali facilitate between human partners. In *skin*, the physical body is also bypassed, but in this case, for a connection across geographic barriers. Bringing these two texts together enables me to think through materiality across various contexts, from the physiological, to the technological, and finally, to the social. The collapse of mind/body distinction in *Dawn*, and the way this collapse affects social relations, offers possibilities for reading materiality into seemingly immaterial media effects in *skin*. These readings, in turn, off an analogue for understanding how racialization operates through plays between matter and meaning.

   In the "Sex" section, I examine a sensuality that can only be achieved by bypassing the flesh. In the scrambling of sense and thought in the sex scenes, where participants cannot differentiate between physical

sensation and mental experience, everything becomes a physical phenomenon. This paradox in which sensuality is made possible by the bypassing of flesh reveals a new ethics that prioritizes pleasure at the cost of consent.

In the "Flesh" section, I explore how the reduction of body to flesh, a process that began during the violences and atrocities of the Middle Passage, creates an opportunity for rethinking the political potential of sensuality and the surface. Here, I examine how the concept of the Pornotrope creates a ground for new theorizations of meaning and materiality where exploitation and pleasure co-exist. The "surface effects" from this section include strategies like foreclosure, fugitivity, and unmappability–strategies in which the Black flesh, reduced to surface, is imbued with an intractible significatory potential.

The theorization of surface effects then becomes a ground for understanding how physical registers interact with symbolic ones in the "Skin" section, where I analyze the net art work, *skinonskinonskin* (1999). Here, I read surface aesthetics into multiple layers of formal materiality, such as the computer screen, but also in programming and machine language logics and structures. My readings find a tension between control and communication throughout the work, echoing the tension between pleasure and violence in the previous sections. The tactile qualities of the net art work, where the user can manipulate objects on the screen with her mouse, is complicated by laggy or intractible effects created by the parameters and structures of the underlying code. The displacement of certain elements like hidden messages reinforces the levels of formal materiality that operate throughout the stack with varying degress of accessibility. At times, total foreclosure precludes access to subordinate levels of abstraction, where formal materiality gives way to the forensic level of illegible characters and magnetic traces. In this state, objects are in tension with the signified, and the surface itself enables a kind of chaotic state, where everything becomes skin. This reduction enables racialized flesh to harness the chaos of significatory possibility. Here, digital objects, distillations of real world referents, become imbued with expressive potential.

1.5 unstructured fragments

1. haptics Throughout this work, the user engages with HTML and JavaScript code via haptics on the browser. The source code endows digital "objects" with properties and methods so that they can become manipulable

at the level of surface. These constructs, which are defined under the hood of the browser, enable sensual experiences for the user.

2. foreclosure / displacement The surface effects of the screen engage elements within the code, which are inaccessible to the general user, to surface additional layers of foreclosure.

   This screen surfaces a displacement inherent in all significatory systems but particularly in machine language systems, which rely on levels of abstraction in its software stack.

3. obsolete elements Due to modernization, the browser languages HTML and JavaScript use now depreciated elements like `<layers>` and `<area>` to add animation. Additionally, since Flash technology, a compiled software that is not "human-readable", has been discontinued, it is very difficult to find solutions for editing and viewing Flash elements.

4. Hayles on data traveling up the stack Hayles points out that, "Precisely because the relation between signifier and signified at each of these levels is arbitrary, it can be changed with a single global command" (Hayles, "Virtual Bodies" 77).

   Flickering signifiers bring consideration of "transformations" into view. though I do think she is underestimating the "matter," "energy" which goes into it.

   > When a text presents itself as a constantly refreshed image rather than durable inscription, transformations would occur that would be unthinkable if matter or energy, rather than informational patterns, formed the primary basis for the systemic exchanges. This textual fluidity, which humans learn in their bodies as they interact with the system, imply that signifiers flicker rather than float. 30

   In this movement up the stack, data shifts between registers and becomes more tangible, a process that is belied by the fleeting and diaphanous forms that finally emerge on the computer screen.

   Due to this appearance, the flickering signifier perpetuates a liberal humanist ideology about the body/mind separation into the posthuman one of hardware/code. Just as the mind rules the fleshy body, so the *code* represents a an insubstantial standard that drives computation.

   Thinking about the illusion of digital materiality on the screen, N. Katherine Hayles wonders, "Why do we talk and write incessantly

about the 'text,' a term that obscures differences between technologies of production and implicitly promotes the work as an immaterial construct?" ("Flickering Connectivities" 2000, par. 57).

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