Human Objecthood in the Datasphere: The Body as Resistant Material in Twenty-First-Century Media

Sarah Lucie

Human Objecthood in the Datasphere:
The Body as Resistant Material in
Twenty-First-Century Media

Sarah Lucie

As twenty-first-century media continues to evolve, we as humans must accommodate and habituate to our ever-changing environment, leading to new relationalities and shifting experiences of the self. *Twenty-first-century media* refers to the emerging algorithmic technologies that make everything from social media, data-mining, biometrical microsensors, and artificial intelligence possible, but Mark B. N. Hansen specifically coined the term to differentiate how these new forms of media affect human experience.[1] One such shift is the way twenty-first-century media renders the human subject into an object, where elements of the human are extracted and interpreted as data, which then go on to travel and interact in ways that the individual human subject cannot track or even comprehend. This development raises particular concerns as we volunteer our information into technoscapes that allow for greater surveillance and policing in ways that are nearly invisible to us, until after the fact. Indeed, machine learning, one type of artificial intelligence, trains systems to identify and categorize objects (humans included) based on their aesthetic metrics, and therefore necessarily requires attention to specific qualities rather than the whole.[2] So often, the effect of twenty-first-century media can feel dehumanizing or alienating, as we witness ourselves pulled apart into different, decontextualized representations, and find that our likeness lives and acts beyond our control.

Sarah Lucie earned her PhD in theatre and performance from The Graduate Center, CUNY. Her research approaches contemporary performance through new materialism, ecocritical theory, and posthumanism. Her writing appears in Performance Research, The Routledge Companion to Theatre and Politics *(2019), and* Machine Made Silence: The Art of Kris Verdonck *(2020), and her reviews can be found in* Theatre Journal, PAJ, e-misférica, *and* Puppetry International, *as well as* Show Business Magazine *and* Huffington Post. *She is the media editor of* Performance Studies: An Introduction *(4th ed.), as well as an assistant editor of* TDR: The Drama Review.

---

[1] Mark B. N. Hansen, *Feed-Forward: On the Future of Twenty-First-Century Media* (Chicago: University of Chicago Press, 2015), 3–7.

[2] The way machine learning–based systems are trained (by humans) on data often leads to biased systems; see Rebecca Heilweil, "Why Algorithms Can Be Racist and Sexist," *Vox*, February 18, 2020, available at *www.vox.com/recode/2020/2/18/21121286/algorithms-bias-discrimination-facial-recognition-transparency*. For more on racism in algorithms, see Will Douglas Heaven, "Predictive Policing Algorithms Are Racist. They Need to Be Dismantled," *Technology Review*, July 17, 2020, available at *www.technologyreview.com/2020/07/17/1005396/predictive-policing-algorithms-racist-dismantled-machine-learning-bias-criminal-justice/*.

While the threatening implications of a human object are clear, embracing objecthood may have some positive potentials as well, promoting an understanding of humans as deeply embedded within and responsive to our environment, not as prime subjects or masters, but as equal collaborators. Thus to experience the self as an object may open up different ways of experiencing and responding to one's environment. I introduce performance as a corrective to any unilateral conclusion about changing technologies and their effect on human objecthood. Performance can effectively interrogate the human within twenty-first-century media technoscapes, not only because of the form's history in embodied inquiries into the nature of human subjectivity, but also because the form can build an environment and implicate the individual within it.[3] Furthermore, developing technologies, appearing in performance spaces as well as the everyday, help us to experience an expansion of the body and access a sensuality that is not human to human, but extended in the nonhuman networked world. This embodied experience reveals the tensions between our immersion in a surveillance state and the ways in which we retain our material presence, and with that presence, a sense of agency and resistance to complete absorption into the network of surveillance and larger technosphere.

In this essay, I elaborate on the nature of the human as object within twenty-first-century media, where I build upon theories developed through object-oriented ontology (OOO). This object is not a passive and "objectified" substance to be acted upon where its aesthetic qualities are mined and exploited, but a complex and nuanced thing that interacts with the world through those aesthetic qualities and a distributed agency. Furthermore, I introduce illustrative examples of performance that reveal this objecthood, while simultaneously embracing materiality to suggest models of resistance to the pervasiveness of the datasphere, including Leonardo Selvaggio's *URME Surveillance* (2014) and Zach Blas's *Facial Weaponization Suite* (2011–14). Then, I more fully interrogate Jacques Herzog, Pierre de Meuron, and Ai Weiwei's *Hansel and Gretel* (2017). This performance installation is exemplary in how it opens up a productive space of critique, directly addressing the dangerous effects of surveillance technology and its ubiquity in our everyday life, while simultaneously fostering an experience of objecthood in the audience that is disorienting but brimming with potential. This performance event is especially useful in considering the human body within and responding to the network of twenty-first-century media, because participants become the performing objects in the installation, rendered as objects within the datasphere. As my discussion will show, the installation's encounter with the body highlights how the human interacts with one's environment as an object. However, I argue that twenty-first-century media—where a human's qualities are translated into data that goes on to interact in algorithmic technology and machine-learning systems in particular—creates an expanded human object that is distributed in time and space. Still, if applying OOO's insight into the ways objects are objects in themselves but possess agency and interact with others, then the notion of the expanded human object must

---

[3] Anthropologist Arjun Appadurai defined five different "scapes" or flows developed through globalization, and differentiates between a "technoscape," which refers to flows of technology, and a "mediascape," which refers to the flows of educational and entertainment content as well as other media. However, twenty-first-century media develops precisely through the ways technology creates increasingly intimate relationships with media, and so here, I find media and technology to be entwined. See Appadurai, "Disjuncture and Difference in the Global Cultural Economy," *Theory, Culture & Society* 7, no. 2 (1990): 295–310.

account for this duality; this human then remains implicated within its environment, while resistant to the danger of losing oneself to complete saturation within this continually developing technosphere.[4]

The Body within Twenty-First-Century Media

Within the context of virtual reality and the datasphere, the material fleshiness of the human often feels in binary opposition to the more immaterial, transcendent information traveling through the network. However, a renewed attention to the material body highlights the ways in which the body's more material and sensorial experience inflects the virtual, and further, that the body is never fully subsumed into this alternate system. Indeed, Robert Mitchell and Phillip Thurtle sought to undo the binary between the material and immaterial in virtual reality by thinking toward a "material poesis of informatics," seeking to redefine "the body" as "anything that cannot be divided without changing the fundamental pattern of its dynamics."[5] With this definition, the body expands to account for formations outside the biological body's bounds, while other networks and autopoietic systems also appear as bodies. Mitchell and Thurtle thereby open up the possibility for a conception of bodies beyond the natural, phenomenological, or socially constructed. N. Katherine Hayles similarly asserts that the human's interaction with new technologies of virtual media upset traditional notions of presence and absence, where "[t]he user learns kinesthetically and proprioceptively in these systems that the boundaries of self are defined less by the skin than by the feedback loops connecting body and simulation in a techno-bio-integrated circuit."[6] For Hayles, there is an imperative to continue to foreground materiality and embodiment in these systems, lest we forget that something material produces these informational patterns. Hansen took the material body's intimacy with informatics even further with his notion of the "body-in-code," which he defines as "a body submitted to and constituted by an unavoidable and empowering technical deterritorialization—a body whose embodiment is realized, and can only be realized, in conjunction with technics."[7] The body does not disappear, but develops in conjunction with the technologies it co-creates. Hansen's argument insists that the body retains its agency through this embodiment. Indeed, the body is "a primordial and active source of resistance,"[8] as it exceeds complete organization and control.

I embrace these perspectives foregrounding the material nature of the body within the datasphere, and I build upon Hansen's notion of the body-in-code, a body constituted

---

[4] I refer to the "technosphere" as the realm of the environment modified by human interaction and technology. This is not limited to the online digital environment, although it does include the virtual realm as one element of our worldly experience. As I will go on to explicate, the object can find an outside to this technosphere through its withdrawn realm. Following Jean-Sylvestre Bergé, Stéphane Grumbach, and Vincenzo Zeno-Zencovich, the "datasphere" is more specific to a wholistic understanding of information captured in digital form and agentially flowing through the virtual realm. This differs from "cyberspace," which refers to the networks and technology in which the datasphere lives. See Bergé et al., "The 'Datasphere', Data Flows beyond Control, and the Challenges for Law and Governance," *European Journal of Comparative Law and Governance* 5, no. 2 (2018): 144–78.

[5] Robert Mitchell and Phillip Thurtle, eds., *Data Made Flesh: Embodying Information* (New York: Routledge, 2004), 2, 3.

[6] N. Katherine Hayles, "Virtual Bodies and Flickering Signifiers," *October* 66 (1993): 69–91, quote on 72.

[7] Mark B. N. Hansen, *Bodies in Code: Interfaces with Digital Media* (New York: Routledge, 2006), 20 (emphasis removed).

[8] Ibid., 15.

through its interaction with technics. To this formulation I add the implications of the body as an object. The notion of this body-in-code as an object, or what I will refer to as a "data-body," specifically emphasizes its materiality—and with that materiality, its sensuality, solidity, and resistance. Further, considering the body's objecthood requires that we look at the body's agency and effectiveness through the lens of object agency, through which more distributed effects through the expanded body might be more fully accounted.

I define the object through OOO and new materialism as a complex and active agent in the world that relates to other things and its environment in critical ways, while also maintaining an individuality that remains its own. In other words, to call the human body an object within this context is not the same as "objectifying" it in common vernacular. Whereas objectification emerges from power imbalance, assuming that one object exists beneath and demeaned by a subject, objecthood reflects a sense of materiality within a flattened ontology of objects sharing the atmosphere. The connotation of a human object must be shifted from something *suggesting* power relations—fear and exploitation—into something *radically exposing* those power relations, something finding power in solidarity with such vast masses of forms.[9]

According to OOO, each object is an object in itself. The object exists through multiple realms, with a withdrawn reality that is unknown and unnameable to the human, but enmeshed within the world through its aesthetic qualities that create sensual effects. This sense of the object differs from other interpretations of this fundamental philosophical question. Monist thought would suggest that the object exists solely through the presence of its parts, which can be broken down into ever smaller parts to find our common single source; or, philosophy of difference would suggest that this object exists only through the ways it differs from other objects within a relational field; or, correlationism would suggest that the object exists only through our human mind or our perception of its qualities. Instead, OOO returns to Aristotle's attention to objects as unified things that are more than the qualities they possess, and the discourse therefore asserts that all objects exist in their own right, rather than existing by or for another through their qualities or associations. However, OOO builds upon Aristotle's foundation to say that objects "need not be natural, simple, or indestructible."[10] With this addition, the object can be less tangible, like data, and more complex, like the data-body.

Our sense of how matter behaves affects how we understand the way things interact with the world. In *The Quadruple Object*, Graham Harman writes that all objects exist on both real and sensual planes, possessing both real and sensual qualities. This fourfold structure builds from Heidegger but differs drastically, in that Harman does not uphold Heidegger's distinction between *object* and *thing*: Heidegger views the object in a more negative light as a creation by a subject and constituted through its name and use, while the thing, a more positive entity, exists in the world, unmediated. With this distinction, a presence and absence emerges. The object is present to us: we have named it, have a habitual use of it, and keep it nearby in our perception. But the thing is absent: it eludes us, has more layers of meaning and uses, and we might not notice it in our environment. Harman finds this sense of presence and absence

---

[9] See Katherine Behar, ed., "An Introduction to OOF," in *Object-Oriented Feminism* (Minneapolis: University of Minnesota Press, 2016), 1–36.

[10] Graham Harman, *The Quadruple Object* (Winchester, UK: Zero Books, 2011), 19.

useful, but he asserts that these realms are simultaneously occurring in the same individual entities. Therefore the object exists within the larger world that is "real"—as in, authentic, unchangeable, and not contingent on human perception. But that same object participates in the world that we can perceive. The key here is that the human, or any sensory being, will never be able to fully grasp an object in its entirety. Thus an object can simultaneously interact through its aesthetic qualities, but also retain a self that cannot be fully integrated into its surroundings. Importantly, OOO maintains that this sense of the object in itself does not preclude it from having real effects and close relationships with other entities. Its aesthetic qualities and the ways it produces sensual effects are highly agentic, can create change, and build relationships. Harman's definition of the object includes the human as one kind, and he addresses the question "whether [the] obvious difference between humans and non-humans deserves to be made into *a basic ontological rift*."[11]

When the human body is understood as an object, we might more readily realize the ways in which our own aesthetic qualities and identifiers reach out and interact within the sensual realm, becoming integrated in the environment through dispersed agency. These qualities are a part of us, but our withdrawn elements remain private and inaccessible to the world around us. Within the context of human relationality with machine-learning systems, for instance, aesthetic qualities in the sensual realm create data, but other information remains outside of the accessible. In other words, we expand into the datasphere but do not completely lose the tether to the material individual resistant to complete absorption. This posthuman view deconstructs the boundaries that support the fallacy of a defined and sovereign subject in favor of an object embedded within and responsive to their nonhuman atmosphere, while also grounding us in the solid materiality of the human body, where its matter *matters*. As an object, the human body's materiality and aesthetics necessarily have effects in the world, although the body simultaneously exists in itself without ever fully assimilating into its environment. To consider the data-body within the datasphere, then, we easily detect the realm of sensual effects, as aesthetic elements of the body become data that interact in a variety of ways, but we also find the ways in which the material body retains elements of the self despite the datasphere's pervasiveness.

Performances of the Data-Body

Theatre and performance have historically engaged with the question of the human's place within changing media ecologies. Indeed, theatre has often explored new technologies, from photography through the nineteenth century to facial-recognition software in the twentieth and twenty-first centuries. Given theatre's aptitude for contemplating the performance of identity for an audience, a number of examples of theatre and performance deal with existential questions about the individual self in the face of changing media.[12] Within the larger genre, I focus here on examples of performance that more specifically consider the material body and the omnipresent

---

[11] Ibid., 119 (emphasis in original).
[12] I refer to "identity" as information performed and projected to others, in this case humans or nonhumans, through an ongoing process of self-definition. Identity markers performed through movement, gestures, speech, and expression through clothing or other aesthetic modifications to the body all occur in the sensual realm of the object, and therefore are important and real elements interacting in the world but not capable of full expression of the object.

nature of twenty-first-century media, biometric data, and surveillance in the environment in which we live every day.

An early group that addressed the body's place in a mediascape is the Surveillance Camera Players, formed in 1996, who staged plays for the surveillance cameras in public spaces in New York City. Examples of its early work include a performance of Alfred Jarry's *Ubu Roi* in the Union Square subway station in 1996, an adaptation of George Orwell's *1984* at the Fourteenth Street and Seventh Avenue subway station in 1998, and original *Headline News*, performed in multiple spaces across New York City in 1999. This group exemplifies an early engagement with surveillance by drawing attention to the (unmarked) cameras already existing in so many spaces. By orienting their bodies directly toward the cameras and communicating through text written on posters, the performances were directed to security teams, but they were also intelligible to passers-by, who often turned to see for whom the performers were performing. In addition to identifying the presence of the cameras, the group also brought attention to the performative nature of our everyday experience in public space, where we all perform roles for unknown audiences. Further, the performances critiqued the ways in which we submit our information—our faces, our identities—and voluntarily participate in structures that we do not fully understand. For instance, in *Headline News*, posters communicate headlines, where the image of a machine gun accompanies the "national news" headline and a skull and crossbones follows "weather." Posters also function as commercials, such as an image of the Nike logo followed by "proud sponsor: Chinese sweatshops" or an image of the CBS logo with the phrase "we watch you watch."[13] With these gestures toward a larger global network, the Surveillance Camera Players points toward the ways that our daily encounters as consumers of media and in the market have more serious effects beyond the immediate and intended. The troupe continues its work to this day through different iterations of the company, and it also encourages offshoots to form anywhere with the support of its online archive.

While the early work of the Surveillance Camera Players brought attention to individuals' embeddedness in the mediascape, with the continuing development of twenty-first-century media, we are now co-constituted by new media. In order to process our positions within this media, a trend of performances have begun to address the ways in which the body expands into the digital world, and the ways that the body's image and data engage with the datasphere. For instance, Selvaggio interrogates identity and the body's image in *URME Surveillance* (fig. 1). The project centers around a three-dimensional model of Selvaggio's own face, which he invites others to wear in surveilled areas as an identity prosthesis. He also offers a more affordable and accessible paper mask model that can easily be printed from home. In an installation at Columbia College in 2014, Selvaggio set up a mirror, pictographic instructions, and a surveillance device in the form of a tablet. Participants were invited to try on the mask and pose for the full-length mirror or take selfies on the iPad positioned to document their movement. This interactive station stood beside a wall filled with motion-sensor cameras, which moved to track the participants' positions, often inviting waves and playful interaction with the moving machines. Yet another section in the installation included a face filter device: participants stood in front of the camera, and in the image projected back to them on a screen their faces were replaced by Selvaggio's own.

13 Surveillance Camera Players, "SCP Headline News," NotBored.org, n.d., available at *www.notbored. org/headline-news.html*.

Figure 1. A participant tries on Selvaggio's 3D face mask during the *URME Surveillance* installation at Columbia College in 2014. (Photo: Courtesy of Leo Selvaggio.)

With the notion of an "identity prosthesis," Selvaggio invites others to take on the identity "Leo Selvaggio" in public places. Selvaggio's identity as a white man supports the project's overarching theme. Thus when he offers his face, he invites people to take on the safety of his social position even during protest or illegal activity. The 3D printed mask is an incredibly uncanny likeness, which draws interest as one novel element of the installation. However, the ways that Selvaggio removes his own likeness, as well as the likenesses of those who take his on, reflect the ways in which imaging works in contemporary media. With the mutability of the face in this setting, the face itself separates from unique individual identity. Through the face filter device, Selvaggio invites a disconnection with one's own mirror image. But the body does not disappear; rather, the body's physical presence triggers the technical interaction, not inviting any prescripted play but more primally affirming presence. Hansen argues that virtual reality technologies perhaps paradoxically reveal the "experience of imaging as an inherently technical, originary element of the organism's being."[14] The body provides data to outside systems in many forms, and these representational features are active in the world. These do not diminish the body—it is not a passive surface that receives signification—but instead affirm the body as the source. In the case of *URME*, the potential of the individual self to manipulate and shapeshift its exterior aesthetic features is highlighted and augmented.

[14] Hansen, *Bodies in Code*, 19.

While Selvaggio separates the face from the body through replacement, Blas's *Facial Weaponization Suite* transforms facial recognition data into something else entirely. Blas builds face masks purposely designed to overwhelm biometric facial recognition by aggregating collective facial data of workshop participants. The resulting masks are amorphous shapes that confuse biometric facial recognition technologies. One design amalgamates features from gay men into one mask, another engages with a "tripartite conception of blackness," while another engages with feminine features and feminism's relationship to concealment through veils.[15] All of the mask designs informatically obfuscate the aesthetic qualities of the face in order to jam up facial recognition technology. In addition to being exhibited, the masks are also used for public interventions and performances, such as a fourth mask developed for "Procession of Biometric Sorrows" in Mexico City in 2014, which was staged in resistance to the biometric surveillance of borders—specifically, the border between the United States and Mexico[16] (fig. 2).

Blas's project adds nuance to the material dimension of data through his process of aggregation and transformation in the shape of the masks. As participants volunteer the details of their faces, their aesthetic elements quite literally move and interact with Blas's technology, joining in community with the data of others to become rematerialized into a new shape. Once again, the way that one's individual aesthetic elements can be separated out from the individual's identity highlights the nature of imaging in our human experience. Notably, Blas plays with the visibility of these aesthetic features by creating a doubled mask—both obscuring the data, while simultaneously obscuring the physical face with the mask itself. Blas's project highlights the inequality and violence of pervasive surveillance, while simultaneously offering material modes of resistance to it.

I have briefly traced some ways that art and performance are responding to the experience of objecthood within the twenty-first-century technoscape. Throughout the examples, the ways that the individual delivers data into the network emerges as a shared theme, although the ways that the individual can resist through an attention to their materiality are also of interest. With these themes in mind, I turn to Herzog et al.'s installation *Hansel and Gretel*. This performance installation builds upon these ideas but goes further to address the vast scope of the technoscape. It stands out as an exemplary case study because it offers its participants the opportunity to experience the disorienting encounter with one's own data traces as they move beyond the bounded material body. By fostering the affective, sensorial experience of expansion, Herzog and colleagues critique the nature of the human as data producer, but they also open up a productive space of reflection on human subjectivity within this world.

Hansel and Gretel and the Disoriented Body

Hansel and Gretel, which premiered at the Park Avenue Armory in New York City in June 2017, casts the participants as the actors of the performance, performing for themselves and their fellow participants through an interaction with the installation's technologies. In this performance, the participants themselves are interpellated as ob-

15 Zach Blas, "Facial Weaponization Suite (2012–14)," zachblas.info, n.d., available at *https://zachblas.info/works/facial-weaponization-suite/*.

16 For a more in-depth discussion of Blas's work, see Rosa Wevers, "Unmasking Biometrics' Biases: Facing Gender, Race, Class and Ability in Biometric Data Collection," *TMG Journal for Media History* 21, no. 2 (2018): 89–105.

Figure 2. *Facial Weaponization Suite: Procession of Biometric Sorrows,* public action, Mexico City, June 5, 2014. (Photo: Orestes Montero Cruz, courtesy of Zach Blas.)

jects, with the relationality of their material bodies to the atmosphere emerging as a central theme. Named in reference to the famous disappearing breadcrumbs left behind by the characters Hansel and Gretel in the Grimm fairy tale, here digital breadcrumbs trail the audience. But these do not disappear, and they are instead stored for unforeseen purposes that invite reflection regarding the prevalence of surveillance in contemporary society. The material agency of the trail of personal data, part of the data-body, emerges as immediate as the body itself due to the vast technoscape of contemporary society.[17] Thus any notion of the material body must be amended to account for this re-materialization and agency of the data-body. The following section will investigate how the installation's dramaturgy renders the audience into objects, and how the performance's provocation offers an addition to the implications of human objecthood in light of the ways that personal data moves through the contemporary world.

Hansel and Gretel is a collaboration among architects Herzog and de Meuron and artist Ai; the project reflects their varied interests and experience. Herzog and de Meuron have worked on an array of notable projects with their architectural firm, such as the conversion of the Bankside Power Station into the Tate Modern in London and the Elbe Philharmonic Hall in Hamburg. Their style reflects an interest in designs that are sensitive to the site, geography, and culture of the region for which they are

[17] Hiroki Azuma also considers the notion of developing subjectivities through the datasphere in *Otaku: Japan's Database Animals*, which argues that the effects of the *otaku* (a term describing a person with obsessive interests in particular areas of popular culture, like anime or manga, who participates in online fandom) subculture in Japan results in the *otaku* becoming animalized, driven by specific needs in the technosphere rather than intersubjective desires. See Azuma, *Otaku: Japan's Database Animals*, trans. Jonathan E. Abel and Shion Kono (Minneapolis: University of Minnesota Press, 2009).

designing, as well as an innovative and formalist use of materials. *Hansel and Gretel* reflects their thinking about the ways that space performs and enacts different relations among the human bodies implicated in the designs. Collaborator Ai's contemporary work transcends any particular genre, but includes conceptual work, sculpture, installation, and documentary film. Prior to *Hansel and Gretel*, Ai collaborated with Herzog and de Meuron on the design of the Beijing National Stadium for the 2008 Olympic games. His work has also incorporated his open criticism of the Chinese government, for which he was arrested and detained for eighty-one days without charge in 2011. Ai has since moved from China and continues to create politically relevant work, including *Hansel and Gretel.*

The trio reported an interest in creating a sense of disorientation in the participants through the crafting of space, which they accomplished through a variety of means that put the body in specific relations to its environment.[18] Instead of entering through the armory's main entrance, participants were directed around the block to a nondescript service entry on the east side of the building. They then proceeded down a long, brightly lit white hallway before entering the dark, cavernous space of the Drill Hall. The lack of light, juxtaposed with the whiteness of the hallway before it, creates a sensory deprivation. Participants moved slowly and carefully as their eyes adjusted, while this liminal transition insisted that one pause before diving into the new environment. In my own experience when entering the main hall, I was first overcome by the darkness and felt the vastness of the space around me. I also immediately noticed the sound of drones buzzing in the air; even before noticing any other human guests, the drones were the most apparent objects sharing this new space.[19] The artists describe this initial moment of entry as generating a sort of fight or flight response in the audience's bodies, as the body attempts to be more alert in order to protect itself while the eyes adjust. In this moment, the audience's material bodies—and the actual molecular workings of the body itself—are taken into account, as the eye's very functioning figures in the performance's dramaturgical choices.

As the eyesight adjusts to the new atmosphere, it becomes more possible to explore and engage with the space. After this adjustment, I became more aware of two additional actors within the space: the moving lights on the floor and the playful movement of dozens of fellow participants. Upon the ground were different lines and images. Fine, red grid-like lines mapped out space and tracked human forms. The space was also broken into larger square sections, with some in near complete darkness and others in a slightly brighter shadow. Participants are tracked by infrared cameras and overhead drones that are continuously capturing images, which are then projected onto the dark ground. Thus every individual audience member experiences an immediate trace of their movement through a shadowy likeness that stays behind and slowly fades. If one keeps moving, footsteps are left behind as footprint images. But as participants realized the ways that the cameras could interact with the body, many found ways to experiment. One could pause in place to leave a stronger image behind. If the participant looked up directly at the drone for an extended pause, you could then see your face projected on the floor. Many laid down in order to see their body's outline or played with controlled movement to leave motion capture–like images of the body's arms making wings and other unique shapes (fig. 3).

---

[18] Jacques Herzog, Pierre de Meuron, and Ai Weiwei, with Damian Woetzel, "*Hansel & Gretel*: Artist Talk," Park Avenue Armory, June 9, 2017, YouTube, available at *www.youtube.com/watch?v=QHwv9-QKbqM.*

[19] I attended the performance at Park Avenue Armory on August 3, 2017.

Figure 3. Participants of *Hansel and Gretel* move through squares of light and dark as they pose for the drones above them. (Photo: John Hill.)

This experience of interacting with the drone cameras and infrared sensors leads to another experience of the body as object in space, where the body's material communicates with the performing objects active in the installation. The drones and sensors are responding to and interacting with the body's material presence, activated by the body's heat and marking its trace as it moves. Bodies' locations in time and space therefore activate the installation. The images left behind, like a mirror or photograph, invite the interior subject to see themselves from different vantage points, from the exterior and in the past. But unlike a mirror or photo, where a singular locatable object creates an image or a photo frames a singular moment in time, the drones and sensors saturate this environment, and the subject cannot opt out or escape the objects' effects. The individual cannot control the body's sensual interactions in the space. This creates a disorienting experience through the body's immersion in the activated space. And this disorientation builds as the images do not appear in real time, but are delayed, creating a mark where the body no longer is. In *Queer Phenomenology*, Sara Ahmed argues that disoriented bodies that are allowed limited involvement in the world or are effectively out of place become objects; that "disorientation involves becoming an object."[20] For better or worse, moments of disorientation restructure and make strange the ways in which we commonly orient ourselves in our atmosphere. By making these orientations strange, they suddenly become visible, emerging from the background to the forefront of our perception. Furthermore, the experience invited within the installation involves an extension of the body, where its trace becomes another tangible material with affective qualities. The body begins to expand outward.

After participants are satisfied with their time in the Drill Hall, the installation further complicates the body's relationality in a second part. Participants must leave the dark

---

[20] Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham, NC: Duke University Press, 2006), 159.

space and move through the public streets before reentering the armory through the main entrance on Park Avenue. Upon reentry, the audience finds an entirely different atmosphere generated through the mansion's elaborate interior, designed in the Renaissance Revival style of the nineteenth century, with a massive wrought iron and oak split staircase, chandeliers and other fixtures designed by Tiffany, and elaborate woodwork and stencil work throughout the main floor's seven primary spaces. For this particular installation, the space also includes multiple large screens and workstations throughout the halls populated with different interactive tablets. While the space is entirely new for the participants, traces of themselves are already present here. Monitors prominently display a live feed from the Drill Hall, and another screen cycles through life-sized images of participants captured earlier in the installation (fig. 4). It turns out that images were captured of each individual's face when people first entered the white hallway. In the second space, one can turn to a computer program that finds your earlier image with a simple face scan. Furthermore, participants can watch the Drill Hall directly through a small peephole. Little did I know that an entirely different audience could have been watching my earlier actions, and each pose for the drone's camera was also a pose for a much larger audience. The theme of disorientation grows in this second part of the installation. First, the individual unexpectedly faces a disembodied version of themselves, which was performing in another time and space relative to the body. Further, it prompts a reorientation toward past events, reconsidering the previous experience within a different context—who could have been watching? Yet, the past events were undertaken willingly, pointing to the ways in which the participants all submitted to rules that were not fully understood. In undergoing the physical action of gazing through the peephole, the participant becomes the surveillant, further complicating the individual's relationship to this structure.

The Materiality of Data Representations and Implications of Surveillance

With these revelations, the performance takes on the larger themes of the implications of surveillance, which Ai suggests not necessarily as a warning, but as a mirror to the ways in which individuals are embedded in contemporary mediatized culture. Individuals in the general public now have a trail of personal data, or Personally Identifiable Information (PII), which goes on to work as an actant in the datasphere. PII is defined as

> Any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, Social Security number, date and place of birth, mother's maiden name, or biometric records; and (2) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information.[21]

In addition, the category of linkable PII includes information about an individual for which there is the possibility of more information through logical association.[22] For instance, different PII in two different databases may be linked to provide new infor-

---

[21] GAO Report to Congressional Requestors 08-536, "Privacy: Alternatives Exist for Enhancing Protection of Personally Identifiable Information," United States Government Accountability Office, May 19, 2008, available at *www.gao.gov/new.items/d08536.pdf*, 1.

[22] Erika McCallister, Tim Grance, and Karen Scarfone, "Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)," *Recommendations of the National Institute of Standards and Technology,* April 2010, available at *https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-122.pdf.*

Figure 4. My face appears in the second part of the exhibition in the Park Avenue Armory mansion. (Photo: Author.)

mation. In the United States, anyone with a social security number, or a bank account, or a computer, or an email address, has their own PII trail. Then, anyone who uses social media sites or apps like Google Maps that geotag the user's location willingly adds to the stored information. As in the outside world, participants join in and offer their information to the technology while in the space of *Hansel and Gretel*. Also like working surveillance methods, *Hansel and Gretel*'s drone images appeal to vanity, harnessing the urge to snap selfies and receive "likes" on a chosen app. We who have access to these technologies expose ourselves to this technology regularly, so much so that it has become our general condition.

There is much more to be said about the sobering ways that surveillance adds to power and inequality, and the larger installation set up throughout the mansion includes interactive tablets with archival information on a range of topics documenting examples of technology and surveillance in the world.[23] For instance, when scrolling through examples of drones, I encountered information about Charlie, a remote spying-robot catfish used by the CIA, as well as the "insectothopter," a miniature unmanned aerial vehicle for collecting intelligence through a machine that looks like a dragonfly. The archive also included information about other artworks dealing with the theme of surveillance, such as *Drone Shadows*, a series of public installations by James Bridle that traces the shadows of drones and other military surveillance weapons, and the WeiweiCam, the live stream that Ai created in response to his previous arrest and detainment in China.[24] More alarming information regarding a list of confirmed drone strikes and the growing death toll also appeared in the installation.

As the examples from my interaction with the archival information show, the installation resisted taking one specific point of view regarding drones and surveillance, instead offering a multitude of tones and perspectives. As Herzog noted in an artist talkback, the drone is simply a tool. It can be used for positive or negative means; it can be threatening, but it can also be helpful. This stated ambivalence underscores the installation's broader interest in the state of being created through our developing relationships with these technologies, rather than a pointed political argument. By putting participants' bodies into contact with the surveillance drones, the artists create a space that highlights the material effects of the drones on the body, asking questions about how the body now acts in space, and how we can identify that body. The first section of the installation in the Drill Hall engaged with the participants' bodies as objects, where their aesthetic qualities interacted with and provided data for the other objects also embedded in the space. However, the full installation suggests the insight that the aesthetic qualities of this body-object, through its interaction with technology, were having effects elsewhere simultaneously. Much like Blas's and Selvaggio's works, the installation foregrounds how aesthetic qualities can be extracted and become active, but here the audience gets a chance to see this progression in action with their own qualities where time and distance are accounted for in this model environment. The performance suggests the body-object as it exists in the contemporary culture of sur-

---

[23] For an introduction to the topic of surveillance, see David Lyon, *Surveillance Studies: An Overview* (Cambridge, UK: Polity Press, 2007); and James M. Harding, *Performance, Transparency, and the Cultures of Surveillance* (Ann Arbor: University of Michigan Press, 2018).

[24] James Bridle, "Drone," JamesBridle.com, 2021, available at *https://jamesbridle.com/works/category:drone*; Marco Werman, "Ai Weiwei's 'WeiweiCam' Goes Dark," PRI.org, April 5, 2012, available at *www.pri.org/stories/2012-04-05/ai-weiweis-weiweicam-goes-dark*.

veillance must be understood also as a cyborgian body-object, where the body extends in time and space to include its data-body representation as an agentic object itself.

The Data-Body as Hyperobject

To understand the interactions of this data-body, due to its vast nature as it interacts across time and space, calls for a modified notion of the object: the hyperobject. Timothy Morton developed this concept to account for "things that are massively distributed in time and space relative to humans."[25] This hyperobject intimately affects the human while simultaneously affecting nonlocal entities, and it works at a temporal scale imperceptible to the human. Morton argues that the hyperobject's superhuman scale has "ushered in a new human phase of *hypocrisy*, *weakness*, and *lameness*," where we must reassess more conventional understandings of human agency and causality.[26]

To consider the human body and data-body as a singular hyperobject underscores the inseparability of these parts, as well as the ways that this form influences human perception and subjectivity. It is not a body with prosthetic data-bodies; rather, the body *is* the data-body, and the effects of the data-body in the world are the effects of the same body. Like Mitchell and Thurtle's redefining of the body to include systems beyond the biological body, this notion of the hyperobject data-body accounts for the ways in which the human itself distends into a data-body that extends in time and space. Aesthetic qualities of the object are precisely the qualities that the object radiates outward in order to relate to other objects. Like other objects, here the aesthetic qualities of the body—the appearances, representations, measurements, locations, and so on—have turned into data that travel. In fact, the self is so dispersed through space—active simultaneously in the local body as in the global datasphere—that it is no longer able to be perceived at once. The human's own actions are outside the human's perceptual capabilities. The vastness of the data-body also applies to the human's relationship with time. The data components of the data-body interact with algorithmic technologies at a pace too rapid for human perception. In cases of surveillance algorithms used for predictive analytics, or biometric algorithms, the human cannot keep up but only follow traces and track the new data delivered by an algorithm once it activates. Furthermore, these algorithms have the ability to continue their work for an extended period of time, so our data may be components of algorithmic functions for years to come. In accordance with Morton's theory of the hyperobject, these technologies create a data-body—a hyperobject itself—that alters the ways in which humans relate to their environment and underscores a profound embeddedness as well as a lack of mastery by any singular agent.

Developing technologies alter the human experience in a manner particular to the media, such that Hansen has defined this type of technology as *twenty-first-century media*, which he describes as "a form of media that operates predominately beneath or beyond the registers of human sense experience and for purposes other than storing such experience."[27] While previous developments in media and technology have

---

[25] Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 1.

[26] Ibid., 2 (emphasis in original).

[27] Mark B. N. Hansen, "Performance as Media Affect: The Phenomenology of Human Implication in Jordan Crandall's *Gatherings*," in *Performance and Phenomenology: Traditions and Transformations*, ed. Maaike Bleeker, Jon Foley Sherman, and Eirini Nedelkopoulou (New York: Routledge, 2015), 222–43, quote on 222.

influenced the human's relationship to knowledge, Hansen's definition of twenty-first-century media emphasizes this media's experiential influence. The ways that technology changes our perception of the world are inherently also changing our embodied sense of being. Hansen's conception of twenty-first-century media attempts to account for the embodied nature of this shift when he describes this media as a new organ of the human body: "we literally acquire new and alien 'organs' (which must not be confused with prostheses of *our* human sense organs) for excavating extraperceptual dimensions of experience—our own as well as that of other entities."[28] The addition of this new organ leads to a shift toward a more porous and less self-referential concept of embodiment: "this direct targeting of the organs chips away at the body's privilege: no longer positioned as default mediator and integrator of worldly microsensibilities, the body has itself become increasingly dependent on technical supplements for its capacity to sense, or, more precisely, for its capacity to encounter—to *em-body*—worldly sensibility in its operational present."[29] This alien organ therefore effectively denaturalizes the body, while simultaneously diminishing the material body's privilege to sensing and knowing, as new media becomes necessary to process the new data created by media. The data that has now become accessible is so small and swift, such a micro-experience, that it is impossible to be lived by human consciousness. For instance, the shift in a heartbeat as it quickens an eighth of a second, or the rise in body temperature of a half degree, is not easily perceived, and yet Fitbit and other health trackers alert the user to precisely this kind of development. Furthermore, Hansen finds that technical sensors and other media in our environment can record events "directly at the microtemporal level of their operationality and—*independently of consciousness's mediation*—'feed them forward' . . . in ways that can influence consciousness's own future agency in the world."[30] Temporality has therefore shifted. Rather than moving from the present, thinking through the experiential past and moving to the future, now this temporality bypasses the past, moving directly from the operational present into the future. For instance, if a machine can alert you at the first rise of heartbeat, you do not need to notice the shift relative to a prior state, nor to connect this shift directly to a cause. Instead, the machine alerts in order to orient future actions: breathe in order to lower the heart rate. With the advent of this new organ, then, the body becomes porous, unbound, technologically open, and shifting in its relationship to time. In other words, the body extends to incorporate its data-body, becoming a hyperobject itself.

As these shifts in perception and embodiment take place, we must reconsider the ways that our bodies take up space in the world, as objects agentic in the vast atmosphere of virtual space. The lived body generates one's perception of the world. But the lived body changes as it develops, merging with alien organs that become an inseparable part of it. The lived body disperses and extends into a hyperobject. *Hansel and Gretel* precisely focuses on the affective result of this development. Audience members' lived bodies come into contact with their extended data-bodies, albeit in miniature. Typically invisible and at work beyond our perception, here the data-body literally surprises the lived body face to face, arriving into the second part of the installation faster than the lived body can get there, active in ways that the lived body could not expect or predict. The installation therefore makes available the way that different realms of the

---

[28] Hansen, *Feed-Forward*, 267 (emphasis in original).
[29] Ibid., 193 (emphasis in original).
[30] Ibid., 52–53 (emphasis in original).

hyperobject data-body are simultaneously active, as the body and its expanded self, created and manipulated by twenty-first-century media. And the feeling of disorientation forges this realization, as the installation's dramaturgy purposely unsettles the audience, even while their attention continually returns to their material presence.

In many ways, the participant's body acts as the central object of the installation, from which an attention radiates outward toward the implications of the body's extension in the datasphere. However, the literal, physical body remains essential to the installation's dramaturgy. After all, the physical object's aesthetic qualities translate into data. Indeed, the body's facial structure, fingerprint, body mass—all aesthetic qualities—go on to become the PII circulating in the datasphere. Therefore the dual nature of the hyperobject data-body is underscored; the individual, physical object remains a solid presence, even while it expands outward through a vast sensual realm. This body is an object both present and absent, agential and unknown to us at the same time; as a hyperobject, it is distributed in time and space and has agential effects in the environment far beyond the individual's perception.

As previously discussed, the installation reflects that twenty-first-century media is not inherently good or bad but a condition in the contemporary world; within this condition emerges multiple potentialities. Dystopian aspects loom in the ways that our identities, our extended bodies, can be purchased, manipulated, and policed at an imperceptible speed. And yet, a potentiality also emerges in the way this condition interrogates the body, revealing multiple realms of experience. Indeed, OOO offers the notion that the body, as an object with both sensual and withdrawn elements, still has some withdrawn elements that belong to that object alone and cannot be subsumed into any system of relations. There are some elements of each object that exist in and of themselves regardless of their connections or performativity. Further, with this awareness of the body's withdrawn elements that are yet unknown, the body's futurity remains radically open, capable of transforming and reorienting. When its aesthetic elements are not fundamentally tied to the thing itself, it can produce unproductive, contradictory, and confusing data. *Hansel and Gretel* hints at the potential of disjunctive data. Many participants interacted with the drones in order to create images of other shapes and entities[31] (fig. 5). For instance, some participants created superhuman shapes; one person created an image with multiple arms radiating out of a center body, while another participant shifted their arms in order to blur the image to appear as a body with wings. These creations highlight the limits of drone imaging to accurately capture and track human identity, since some aesthetic elements that contribute to data are malleable. Furthermore, this experience with the drones reveals the creative potential of engaging directly with the technology with this sense of play; play, artistry, humor, parody do not fit cleanly into the set of data. In a related study, Harris Kornstein finds counter-surveillance and digital obfuscation methods in drag performances, as drag queens perform shifting identities online, in part through makeup that confuses facial recognition algorithms.[32] Here, drag queens engage a sense of play and experimentation, altering their aesthetic elements to resist the notion of fixed identity inherent in

---

[31] See Jamie Edindjiklian (@misssmachine), "Stratified surveillant #PAAHanselandGretel #aiweiwei @herzogdemeuron (photo by @upinthenimbus)," Instagram photo, August 8, 2017, available at *https://www.instagram.com/p/BXjC2HqnNgP/*.

[32] Harris Kornstein, "Under Her Eye: Digital Drag as Obfuscation and Countersurveillance," *Surveillance and Society* 17, no. 5 (2019): 681–98.
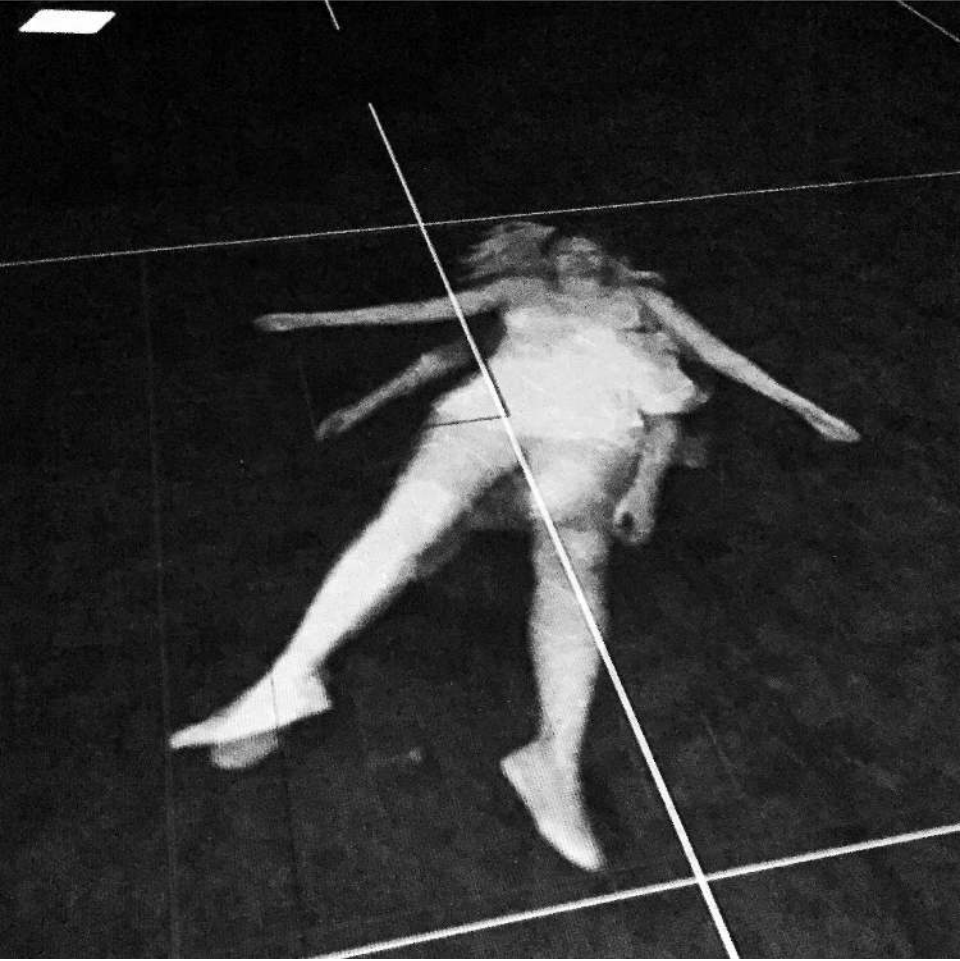
Figure 5. A morphed image of myself projected onto the floor's grid. (Photo: Author.)

surveillance attempts. Surveillance studies have suggested that surveillance depends on strict social categories, including those of race, class, nationality, and gender. But with an attention to these multiple realms of experience that are both present and absent, individuals can provide disjunctive data to these categories to varying degrees.[33] Artists and activists are at the forefront of this resistance, such as the Dazzle Club, which protests through the use of anti-facial recognition paint and choreographed walks mapping surveillance in public space in London, as well as others such as Selvaggio and Blas.[34]

In concert, the works of Selvaggio and Blas aid in conceptualizing ourselves as hyperobject data-bodies in light of twenty-first-century media. Both Selvaggio and

[33] See Harding, *Performance, Transparency, and the Cultures of Surveillance*; Toby Beauchamp, *Going Stealth: Transgender Politics and U.S. Surveillance Practices* (Durham, NC: Duke University Press, 2019).

[34] Moya Lothian-McLean, "These Activists Use Makeup to Defy Mass Surveillance," *Vice i D,* January 29, 2020, available at *http://i-d.vice.com/en_uk/article/jge5jg/dazzle-club-surveillance-activists-makeup-marches-london-interview*.

Blas extract aesthetic elements as data from the body and reshape them. A part of the body then travels outside the self, moving through algorithms and networks on its own although still holding onto a trackable tether to the original body from whence it came. But while certain aesthetic elements can act and shift, at the same time, the individual self remains. Again, the body's presence and absence, both perceptible and completely obtuse, occur at exactly the same time. And like *Hansel and Gretel*'s small gesture toward creativity and resistance, Selvaggio and Blas both make use of these different realms to obfuscate systems that can only account for one sense of identity at a time. The difference in *Hansel and Gretel* is that this process manifests through the two parts of the installation upon the audience themselves. And the installation's dramaturgy invites the audience to feel the fundamental disorientation of recognizing its hyper-objecthood, while it also makes room for fascination, and perhaps even playfulness, as audience members encounter their aesthetic qualities as distributed, agential, and malleable. *Hansel and Gretel* therefore highlights our embedded condition within this datasphere in order to aid in a recognition of the system in which we participate, but both dystopic and resistant potentials persist in this condition.

Conclusion

The human body itself has grown into a hyperobject after its own aesthetic elements and its data-body have extended into multiple timescales and virtual locations at once, all acting as agents in biometric tracking networks and contributing information to machine-learning systems. Conceiving of the data-body as the body itself requires a reorientation to the ways in which we engage with media, in which data traces of all kinds are taken seriously for their agentic potentiality. If the extended body includes the way that aesthetic qualities rendered into biometric data go on to interact in the datasphere, then we must remain responsible for our own extended agency and be responsive to these systems. The effects of our actions, even at a distance, remain a concern. However, the human as hyperobject also implies the object's withdrawn nature and ability to produce contradictory data. The human includes their data-body, but can manipulate and play within the aesthetic realm in order to produce messy, unexpected, or disjunctive data. Artificial intelligence algorithms work through learning systems that classify and cluster objects based on their aesthetic elements, which emphasizes the agentic power of this aesthetic realm in the datasphere as well as the disruptive potential of a playful relationship with aesthetic data. *Hansel and Gretel* and other artworks offer the potential for a playful interaction that reveals the malleable nature of the body-object's image. Embracing this malleability in the sensual sphere and the ability to create unprofitable data may be a potential antidote to the otherwise overwhelming nature of the hyperobject's scale and its embeddedness in the datasphere. The aesthetic aspects of the human, which remain undeniably agentic, are shifting and capable of creating messy and disjunctive data.