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“Dancing with [Philly’s] Ghosts”:  
Recycled Materials and Meanings at an Artists’ Residency

Gabriel Daniel Straus  
Advisor: Professor Farha Ghannam

April 28, 2023  
Honors B.A. Thesis in Sociology and Anthropology  
Swarthmore College

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Since I impulsively asked Billy if I could do research at RAIR in 2019, many people have helped bring this project to life. To paraphrase Karen Barad, this thesis is about entanglements—and, inevitably, it reflects the care, guidance, (needed) criticism, support, generosity, thoughtfulness, and love of the communities in which I am so grateful to be entangled with. I'm deeply appreciative of the Department of Sociology and Anthropology and the Social Sciences Division for the summer grant that supported my fieldwork; their financial support made this project possible—and Debbie Thompson's tireless slog through an epic liability morass made it actually *happen*. Thanks also to Professor Nina Johnson for supporting me through the human subjects research approval process. To Professors Amy Vollmer and Jeff Gauthier in Biology: you taught me to think like a scientist; I could not have undertaken a Baradian reading without my time in your offices, classrooms, and labs. I'm grateful to Professor Brian Goldstein of Art History, not just for agreeing to sponsor a summer research project *way* outside his normal field, but also for pushing me past Caro, for laying the foundations of how I understand the built environment, and for encouraging my love of the urban. And to my advisor, Professor Farha Ghannam: adding your Intro to Anth in Fall 2019 was perhaps the best decision I made at Swarthmore. Thank you for responding to every last note in the margin, for the countless days and nights you spent meeting with me and reading my work, and for consistently reassuring me that it'd be okay; I could not have written this thesis without your wisdom, trust, generosity, and endless patience.

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**ABSTRACT**

What's at stake in people's relationships with objects? I examine this question based on two months of in-depth participant observation and twelve semi-structured interviews with artists from RAIR, an artist residency at a Philadelphia dump, where artists make work out of the discarded material fabric of a gentrifying, deindustrializing city (read: demolished buildings/dead peoples' stuff). Building on the work of Karen Barad, a physicist-turned-philosopher who outlines an "onto-epistemology" based on quantum mechanics, I explore how objects and people "intra-act" at RAIR to refigure time, reshape the city, and redefine the human. I demonstrate how a Baradian agential realist reading captures dynamics missed by both existing anthropologies of waste and other "new materialisms." My analysis suggests, however, that we need a stronger ethic of accountability than Barad's reading implies—one that centers social inequalities in our understanding of human/non-human relationships.

## CHAPTER ONE: A PLACE THAT MAKES REALLY COOL STUFF OUT OF TRASH

In December 2018, Revolution Recovery, a recycling company, sent its 2,500 business contacts a holiday card featuring a twenty-five-foot-tall orange hockey mascot made of trash.<sup>1</sup> The sculpture was the work of artist Billy Dufala, who, as *Philadelphia* magazine reported, constructed a Santa-hat-wearing replica of Gritty, the



Figure 1: The card featuring *Garbage Gritty*, as posted on Revolution Recovery’s Facebook page.

Philadelphia Flyers mascot and leftist internet meme, from “orange construction tarps, lids from five-gallon buckets, a mattress and mattress foam, plastic tubing, a variety of lumber, red fabric, and corrugated plastic sheeting” that he “sourced from the...waste stream” at the site. The inspiration for the piece lay somewhere between ironic trendiness and civic pride: as Dufala told the reporter, “Gritty was just on the cover of fucking *Artforum*...are you kidding me? The Gritty craze is just such a totally bizarre and amazing phenomenon, and it’s so Philly!” *Garbage Gritty*, though, was more than just a one-off. As the article noted, Dufala “is the co-founder of Philly nonprofit Recycled Artist in Residency (RAIR), whose mission is to ‘challenge the perception of waste culture by providing a unique platform for artists at the intersection of art and industry.’ In other words, they make really cool stuff out of trash.”<sup>2</sup>

In this thesis, I’d like to account for this place that “makes really cool stuff out of trash”—to unpack how RAIR’s artists understand the discarded objects they find there, to probe what’s at stake in how they pick objects from the waste to remake, and to ask what kinds of urban community the

<sup>1</sup> Image source: Revolution Recovery, “Drumroll Please!!! Our 2018 Holiday Card Has Arrived and It Is Grittyful! @philadelphiaflyers What Do You Think?!”

<sup>2</sup> Fiorillo, “Somebody Built a Giant Garbage Gritty and Put Your Holiday Card to Shame.”

artists reconstitute through those processes of making. Building on the work of Karen Barad, a physicist-turned-philosopher who outlines an “onto-epistemology” based on quantum mechanics, I will argue that, at RAIR, objects and people “intra-act” to remap the city, remake the art world, refigure time, and redefine the human. I will demonstrate how a Baradian agential realist reading captures dynamics missed by both existing anthropologies of waste and other “new materialisms.” Ultimately, however, my data will suggest that we need a stronger ethic of accountability than Barad’s reading implies—one that centers social inequalities in our understanding of human/non-human relationships.

### Milnor Street, Part I: Revolution Recovery

RAIR is hosted by Revolution Recovery, a private construction and demolition (C&D) waste recycling firm located on Milnor Street in the Tacony neighborhood of Northeast Philadelphia. It was founded in 2004 by Avi Golen and Jonathan “Jon” Wybar, two childhood friends from Northwest Philly.<sup>3</sup> Tacony is a diverse, middle-class neighborhood; the

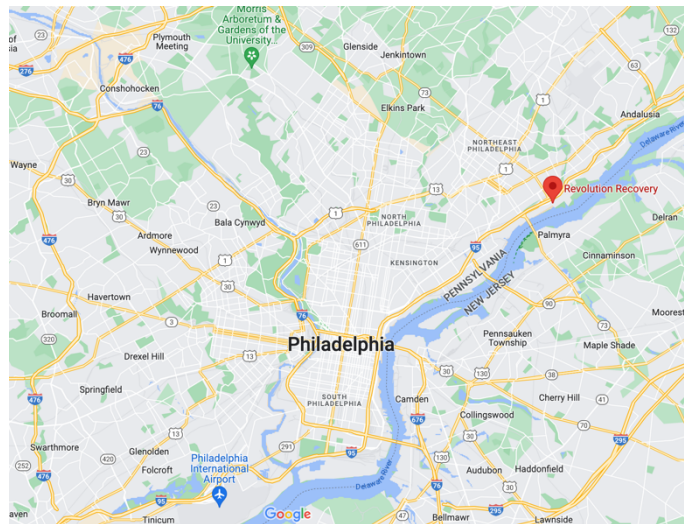


Figure 2: Revolution Recovery’s location in Greater Philadelphia, visualized using Google Maps.

eight lane Delaware Expressway roughly divides the neighborhood into a primarily residential northern section, home to about 20,000, and a southern section with a variety of industrial and commercial properties. Revolution Recovery’s facility is at the southeastern corner of the neighborhood, along the banks of the Delaware River. Its immediate neighbors include a truck repair shop, a chemical company, a metal supplier, a steel fabricator, and, a quarter-mile upriver in

<sup>3</sup> “In the Spotlight.”

Holmesburg, Philadelphia’s municipal prison complex.<sup>4</sup> The company operates out of the northern half of its 14.5 acre property; the remainder, called the Metal Bank site, currently lies empty—but before its remediation by the EPA, Metal Bank was one of the most polluted industrial sites in America.<sup>5</sup> Despite its somewhat grim surroundings, the company grew quickly. By 2019, Revolution Recovery employed well over 100 people, operated dozens of trucks, and processed ~450 tons of waste a day at Milnor Street, 500-600 tons a day at a branch facility in Delaware, and 250 tons a day at another in Allentown, PA—approximately 75-80% of which it claimed to divert from landfills.<sup>6</sup>

Though this thesis will not focus on Revolution Recovery, the artistic practices it *will* focus on take place in the company’s work. To contextualize these, then, let us briefly account for the firm’s operations. Revolution Recovery’s work consists of

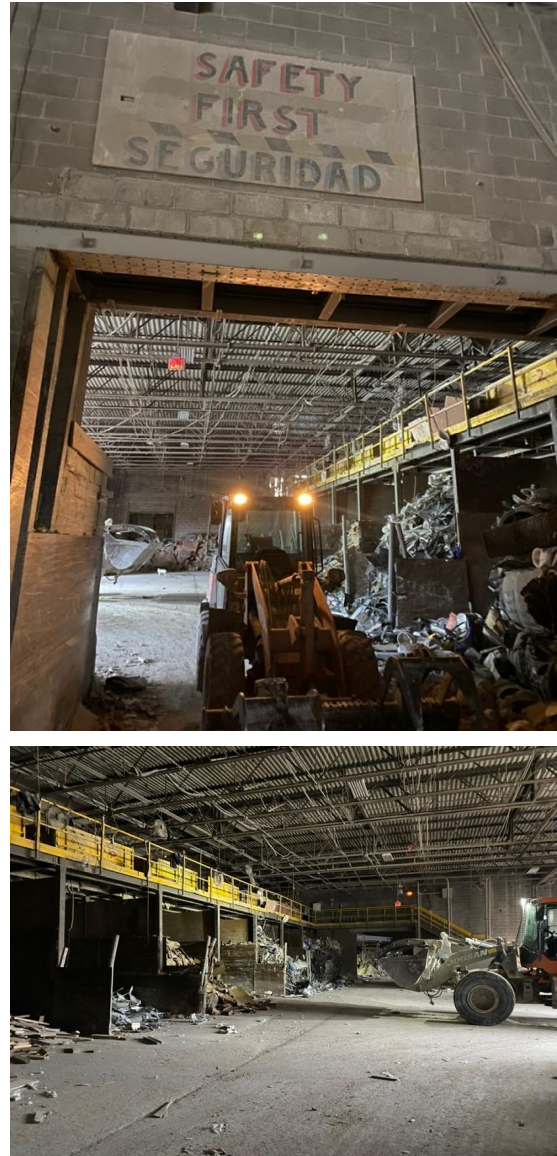


Figure 3: Two photos I took featuring the sort line inside the main building; the first looks north, towards Milnor Street, while the second looks south, toward the tipping floor and the Delaware.

<sup>4</sup> Four Seasons Total Landscaping, the site that enjoyed momentary notoriety as the site of a much-derided Rudy Giuliani press conference in the days following the 2020 election, is another neighbor, located less than 1,000 feet from the site. (Nuzzi, “The Full(Est Possible) Story of the Four Seasons Total Landscaping Press Event.”)

<sup>5</sup> Kummer, “Would You Buy a Poisoned Superfund Site?”; PIDC, “Revolution Recovery.”

<sup>6</sup> Vespa, “Project Profile”; “In the Spotlight.” The story that Avi Golen and Jon Wybar tell about the site’s early days heavily emphasizes their entrepreneurial spirit; in more than one interview, they tell of the site’s beginnings in a parking lot. This narrative, however, ignores the fact that Golen’s father owned Allied Services Corporation, a consumer waste-hauling service, from which Revolution Recovery purchased the Milnor Street site. (OpenCorporates, “Allied Services Group, Inc.”).



three main steps. First, it collects waste at its facility, both through its own hauling business (where clients rent a dumpster that Revolution Recovery trucks away when full) and from other firms, ranging from contractors and industrial sites to private “junk removers,” which include both national firms like 1-800-GOT-JUNK and mom-and-pops operating out of a pickup truck. Vehicles entering the facility are first weighed at the scalehouse (“1” in Figure 4) then, they drive to the tipping floor (2), deposit their materials, and drive back out to the scalehouse, where they are weighed a second time and charged by the ton for the difference. Next, Revolution Recovery workers sort the waste by composition; finally, the firm sells what it can and pays to landfill what they cannot. Sorting happens at several levels: first, personnel in front-end loaders, excavators, and bulldozers sort loads primarily composed of particular material into large “piles” (3, 4—the wood pile, the drywall pile, the steel pile, etc.) throughout the yard, and deposit large loads that are clearly not profitable to sort into an open-top truck at the edge of the tipping floor destined for landfill. Loads that pass this initial screening are then transported to the back of the main building (5) and deposited on a massive conveyor belt, which raises them to the second story and carries them through the rest of the building. Along this elevated “sort line,” (Figure 3 + 6 in Figure 4) workers “pick” material off a conveyor belt and throw usable materials down into enormous hoppers; from there, material is processed further, baled, sorted into still more piles, and ultimately sold.<sup>7</sup>

This model seems straightforward enough in the abstract, but the reality of the site is much less orderly. On my first day at the site, Billy described the movement of trucks and equipment in the yard as a “deadly steel ballet.” Because most of the truck drivers are not familiar with the site, their movements in the yard are chaotic and unpredictable; though the heavy equipment operators know the site intimately, their vehicles have enormous blind spots and limited mobility. Even away

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<sup>7</sup> This processing can be extensive: for instance, the site chemically treats its drywall to extract gypsum, which it then grinds to a specific density and sells as fungal growth matrix to mushroom farmers in exurban Chester County. Bradley, “Revolution in Recovery.”



Figure 4. A drone photo of Revolution Recovery's Tacony facility, taken from the north; Milnor Street is in the foreground, and the Delaware River is in the background. Visible are a truck being weighed on the scale (1a) and measured in the scalehouse (1b), the tipping floor (2) within the broader yard (red outline), piles of partially sorted material (3) and sorted wood chips (4), the main building (5), the location of the sort line (inside the building; beginning around location 6 and moving towards Milnor Street), Billy's office (7), the studio (8, on second floor), the mechanical shop (9), and Metal Bank (10). Milnor Street is in the foreground, and the Delaware River is in the background.<sup>8</sup>

<sup>8</sup> Image adapted from an artwork produced by Mierle Laderman Ukeles, Artist in Residency at the NYC Department of Sanitation, as part of RAIR's ongoing project to transform the Superfund site. (Ukeles, *What Is This Land?: The People's Entrance.*)

from the sort line, much of the picking and sorting process is still accomplished by hand; workers weave in between the large machines, either in forklifts or with wheeled tubs and small hand carts. Both indoors and outdoors, the site teems with thick clouds of dust, which the workers try to control via regularly hosing down every surface on the tipping floor.<sup>9</sup> One major component of this dust, a by-product of ground-up bricks and concrete called respirable silica, is both carcinogenic and toxic, producing irreversible (and potentially fatal) pulmonary damage if consistently inhaled; workers are thus required to wear heavy-duty respirator masks while working.<sup>10</sup>

In my interview with Billy, he divided the material the site collected into two broad categories: “your home cleanouts and your personal items, and then the things that are coming from industry that serve some...larger utilitarian functionality.” Most of the latter is true C&D waste—the scrap from building new buildings and demolishing or renovating old ones, which makes up the core of Revolution Recovery’s business—but it also includes a variety of commercial, institutional, and industrial waste streams. For instance, in my time at RAIR, I saw one truck filled entirely with lecterns and audiovisual equipment emblazoned with the logo of the Fox School of Business at Temple University, and another that dumped what looked like an enormous pile of multi-colored pencil shavings, a significant portion of which blew away in the wind (which, according to Billy, apparently consisted of the dye and plastic slag from melting cans during the aluminum recycling process). The former category, by contrast, consists of peoples’ property, usually hauled away by a disposal company—including belongings from people whose families clean out their homes after they die or are sent to a long-term care facility, people who die in Philadelphia for whom the municipality cannot identify next of kin, people who are evicted/incarcerated whose landlords

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<sup>9</sup> This has the added benefit of helping reduce the frequency of pile fires, which nonetheless occur spontaneously with some regularity.

<sup>10</sup> The masks are hot, bulky, and uncomfortable; Billy and many of the artists, along with some of the workers, wear their masks only inconsistently. Despite wearing my own mask the majority of the time, I found that on days I spent at RAIR, my chest would hurt by the evening.

dispose of their possessions—and people who simply hire a service to dispose of some of their belongings. (These materials' ambiguous pasts, as I will show, play a major role in many artists' work.)

### Milnor Street, Part II: RAIR

RAIR is an artists' residency program that gives residents access, studio space, and logistical support to make art using materials from the waste stream. It is one of only three such programs housed within a C&D waste facility: its peers include a site in New Zealand, and programs at the Portland and San Francisco branches of a West Coast transfer station operator called Recology.<sup>11</sup> RAIR's roots date back to 2009, when two very different people asked Revolution Recovery's Avi Golen for a favor. Musician and sculptor Billy Dufala, half of the Dufala Brothers contemporary art collective, sought surplus skyscraper glass, and Fern Gookin, then a Philadelphia University graduate student in sustainable design, proposed bringing artists to the site for her master's thesis project. Avi introduced Fern and Billy, and the trio set out to create a pilot program. In my interview with Billy, he described dual motivations for "helping Fern": both because "providing an opportunity for others has always been a huge part of my practice," but also "knowing that it might help me get more access to the site," which would be useful for his own sculptural practice. After Fern's 2010 graduation, Revolution Recovery hired her as its first Director of Sustainability, with, as Billy put it "carte blanche over whatever it took to make her thesis a living thesis." Billy, for his part, was "making a living playing rock and roll...so I didn't have to have a job when I was in Philly, which allowed me to do large stints of just hanging out and learning, [and] meeting and creating relationships...with the workers and the foremen...and...slowly piecing together an area to work in the warehouse." What began as an arrangement to access materials, in so many words, quickly

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<sup>11</sup> There is, of course, a much broader world of "trash art," but the vast majority deals with everyday trash—referred to within the waste industry as MSW, or "municipal solid waste,"—not C&D waste.

became a set of relationships, which, over time, solidified into a community, and into institutional arrangements. This approach will color the site's practices time and again. To take one key example, every artist I interviewed found out about the site through word of mouth: four of my interlocutors described knowing Billy personally, one from the time he was an "art puppy" (2018 resident Shelley Spector's phrase, who asked me to tell Billy she'd called him that), while the remaining seven heard about RAIR from fellow artists.

And RAIR grew quickly. Billy and Fern received a \$40,000 "Creative Economy Workforce Grant" from the City of Philadelphia in 2010, which they used to renovate empty spaces in Revolution Recovery's warehouse for use as an office (7, in Figure 4) and an office (8); later that year, they officially launched RAIR.<sup>12</sup> At first, though, the residency was anything but formal. Billy and his brother Steven created the site's first two works—a cardboard Rudolph the Red-Nosed Reindeer for Revolution Recovery's 2010 holiday card, and a "dumpster coffin" they exhibited in a 2011 urbanism show at the Pennsylvania Academy of the Fine Arts (PAFA—the conservatory where both Steven and Billy had studied, and where both would later teach). Until 2013, Billy described finding residents not through the formal, juried open calls that are standard for such programs, but rather by "inviting friends to come and pilot...to test that proof of concept."<sup>13</sup> By mid-2012, Revolution Recovery had given Fern a day a week of paid time to devote to RAIR, and Billy had "quit playing rock and roll" to devote himself full-time to his sculptural practice and work at the site; later that year, the site formally incorporated as an independent non-profit. By 2016, RAIR enjoyed \$60,000 a year in cash and in-kind donations from Revolution Recovery and support

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<sup>12</sup> Santos, "Disposable Heroes." Billy told me in our interview, though the City issued the grant, the funding ultimately came from Obama-era federal stimulus dollars.

<sup>13</sup> Hoffman, "RAIR Is Re-Imagining Waste in Philadelphia." Even when, in 2013, the site issued its first formal open call, the funding stream that supported it was far from traditional: \$16,244 raised from 191 online donors via a Kickstarter campaign, supported by rewards ranging from site tours and maps of Philly salvaged from the trash to a custom dinner spread featuring Billy Dufala's suggestive "Chicken with Breast Implants" food sculptures. ("RAIR: Giving Artists Access to the Waste Stream - Kickstarter.")

from a number of foundations, which enabled them to hire their first two formal employees (Billy, who began taking a salary, and Lucia Thomé, a former student of Billy's at PAFA, who served as Director of Special Projects until 2021).<sup>14</sup> The site received increasingly major grants, including \$60,000 from the Pew Center for Arts and Heritage in 2015, and an even larger 2018 grant from the Andy Warhol Foundation, which allowed them to add a stipend to the fellowships.<sup>15</sup> As Billy described in our conversation, receiving competitive grants helped make a name for the program, which in turn helped them secure additional funding from still more prestigious backers; additionally, the more cachet and relationships the program built in the art world, the more artists they were able to attract to apply, which in turn helped them build more relationships and gain additional recognition. This process, however, was far from inevitable. As Billy repeatedly stressed, it was made possible only by the “immense amount of support, encouragement, and...trust” from Revolution Recovery—and by years of constant, grinding work by Billy, Fern, Lucia, and others:

what makes us really unique [compared to]...Recology is that we're not... underwritten by Revolution Recovery, so we have to fundraise our salaries, and we have to go for big grants in order to create a profile...like, Recology doesn't have to worry about submitting to the Andy Warhol foundation, *we* do. ... Though we have...in-kind amenities [from Revolution Recovery] that made it possible, we still have to take an approach that's a more traditional artist-run organization...So that grittiness: I think that's probably the thing that separates us...we are scrappy as fuck and we've had to be really, really resourceful.<sup>16</sup>

And they succeeded. By 2021, as Billy described in a Zoom info session for prospective applicants, the combination of prestige, financial support, and access to materials and studio space meant that RAIR expected to receive over 200 applications for its six 2022 residencies.<sup>17</sup>

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<sup>14</sup> Phillips, “There’s Art in That Trash, at Least in One Philadelphia Dump.” Billy also provided additional details in our conversation.

<sup>15</sup> Pew Center for Arts and Heritage, “RAIR: Live at the Dump”; The Andy Warhol Foundation for the Visual Arts, “Warhol Foundation Announces Spring 2018 Grants.” The \$60,000 from Pew directly supported Billy and Martha McDonald’s *Songs of Memory and Forgetting*, a project that I will discuss in some depth later in the thesis; it also additional funding for general operating expenses.

<sup>16</sup> Here, and throughout the remainder of this thesis, I will use *italics* to indicate either italics in a written source, or, in the case of interview quotes, verbal emphasis in my interlocutors’ descriptions; I will use **bold** to indicate emphasis in quotes that I add myself.

<sup>17</sup> *RAIR TOUR 10 23 21*.

### Fieldwork Trajectories

I first visited RAIR on a class trip in December 2019, which, fittingly enough, came about as the result of a personal connection. My professor, Meredith Gaglio, worked summers as the librarian for the Skowhegan School of Painting and Sculpture, a residency in Maine that Billy Dufala had completed the prior year; the two became friends during Billy's time there and remained in contact, and Meredith arranged to bring her "Architecture and the American Landscape" class to RAIR.<sup>18</sup> The tour lasted about two hours, and took place on a Sunday afternoon, when Revolution Recovery was closed; Billy took us around the yard, the tipping floor, the sort-line, and the studios, explaining RAIR and Revolution Recovery's operations. I was fascinated, because of my long-running interests in urban change: I thought RAIR seemed like a microcosm of gentrification, both through the waste stream and in the way artists and laborers from very different backgrounds collaborated, and I thought the Superfund site seemed like an interesting place to think about environmental responsibility. As the tour was winding down, I approached Billy, explained that I was an anthropology student at Swarthmore College who would soon be writing a thesis, and asked if he would be open to my doing research at the site. He responded enthusiastically, telling me "I fucking love anthropologists," and suggested we discuss sometime my junior year.

In early spring 2022, Billy agreed to host me at RAIR, and I received a grant from Swarthmore to support summer fieldwork. I proposed to conduct semi-structured interviews with both RAIR artists and Revolution Recovery laborers in order to better understand how they understood the waste, their roles at the site, and the broader significance of their work to Philly; additionally, I proposed to conduct participant observation with members of both groups as they went about their day-to-day tasks. Initially, Billy was hesitant to support the project because of his

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<sup>18</sup> My own time at the site precipitated another such connection—Professor Brian Goldstein of Swarthmore's Art History Department, who supervised my summer research, brought a class to tour RAIR in Fall 2022.

own crushing workload, but, over the course of a 90-minute initial phone call in which we discussed our shared interests, he softened his position. Since Billy would have to put a substantial amount of time into training and supervising me, given Revolution Recovery's status as an operating industrial site, we therefore mutually agreed that I would also spend part of my fieldwork time on a project that would be helpful for the site. Receiving my grant and Billy's support, though, turned out to be just the beginning. Negotiating four rounds of human subjects research proposal revisions and an epic liability insurance morass involving several institutional bureaucracies, however, took far longer than expected. I had planned to begin work in mid-May, but the insurance situation was not resolved until very late June.

On my first day, I realized that the site was nothing like what I expected. Billy was the only RAIR staffer who consistently worked on site, and his schedule was consumed by a great number of responsibilities: everything from Zoom meetings with state officials about grants to hauling and sorting steel pipes in the yard he intended to use in a future sculpture—and, above all, constant work directly with the artists, who required his personal supervision to operate in the yard. Moreover, Billy and the artists' schedules were highly variable in ways that were difficult to predict; sometimes, they would work 15-hour days, and sometimes, they would not come in at all. I soon realized the type of participant observation I had envisioned would not be logistically feasible. There was not a regularized enough process in which to participate, and my ideas about what the site would be were too divorced from the reality of its day-to-day. Additionally, I became concerned about whether I could feasibly obtain informed consent from the Revolution Recovery workers, because my close alignment with Billy might create implicit pressure to participate, given the broader power dynamics on site.

So, I pivoted. For the rest of the summer, I spent anywhere from 1-4 days a week at the site, helping Billy and the artists with whatever needed doing—everything from helping Billy pick



furniture from the yard for the set of an avant-garde dance piece to weed-whacking a trail through the Superfund site ahead of a visiting delegation of state senators. On days when I was not at RAIR, I did research in support of a pilot program that would aim to destroy refrigerants, a potent greenhouse gas, in a climate-safe manner.<sup>19</sup> This period of participant observation was invaluable, because it let me understand the on-the-ground realities of the site. Though this thesis draws primarily on my interviews, I could not have developed the ideas I will present here without what I learned in that time. Over the course of the summer, I became interested in the specific *material practices* of the artists—how they chose the objects they used in their art, what they did with those objects, and how they thought about what those objects meant. By the beginning of the fall semester, my project’s focus had shifted towards human-object relationships and away from my initial questions about urban change, which, given site realities, I felt ill-equipped to address; I therefore filed for a second round of research approval in September 2022, because my planned interview questions were completely different, my study population was changing (*i.e.*, I was no longer planning to speak with Revolution Recovery staff), and I was no longer planning to pseudonymize the site.<sup>20</sup>

### Studying Art and Materiality

This thesis is based on twelve semi-structured interviews that range from 45-150 minutes in length: eleven with current and former RAIR artists-in-residence, and one with Billy Dufala. I recruited artists via direct outreach, in consultation with Billy; I emailed sixteen artists explaining my

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<sup>19</sup> This is a topic of great personal interest—outside of my academic work at Swarthmore, I run our campus chapter of the climate activist group Sunrise—as well as an area that Billy saw as a potential project for the site should they receive a grant to hire a new staff member. My work over the summer mainly consisted of research, which I summarized in conversations with Billy and memos that I wrote for him; since then, RAIR received the grant, and I am participating in ongoing conversations with Billy about potentially helping make the project a reality in the future.

<sup>20</sup> I made this decision for two main reasons. First, I believe that the site’s specific history, and the broader context of Philly, with its history of harmful environmental and waste-related practices, unique art scene, and specific gentrification dynamics—were not separable from the artistic practices I wanted to study. Second, and more importantly, I realized that RAIR is, essentially, impossible to pseudonymize; Recology, the only plausible alternative, has such a different organizational structure that almost any discussion of RAIR’s operations would destroy the site’s anonymity.

role and the project and asking if they would be willing to help, and I interviewed the eleven who responded positively. All interviews were conducted between December 2022 and January 2023, either in-person in Philadelphia coffeeshops (4 interviews), or virtually, via Zoom (8 interviews). Per my human subjects research approval from Swarthmore Sociology and Anthropology's Departmental Review Committee, I presented each artist with a consent form before each interview, which we discussed at the beginning of our conversation; by default, my interlocutors remained anonymous, but, I included an option on the form for artists to ask to be named if they so preferred. Strikingly, 10 out of the 11 people I interviewed made this request.<sup>21</sup> I recorded audio from all interviews, then transcribed eight manually (*i.e.*, by simply playing back the audio and typing what I heard); for the remaining four, all of which were virtual, I used transcripts generated by Zoom's native closed captioning feature to speed the process, which I subsequently edited to ensure fidelity with the recordings.<sup>22</sup> Taken together, my corpus consists of slightly more than fifteen hours of raw audio, and just over 250 pages of single-spaced text. I would begin each conversation by asking participants about their artistic practice in general, then segue into their time at RAIR, asking about why they applied before discussing their specific practice at the site. Next, I would ask several questions about their RAIR projects, including their intended audiences and impacts, and probe their practices with materials in particular depth. Finally, I would conclude with a set of questions

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<sup>21</sup> Accordingly, I anonymized all data from this one artist's interview before storing it digitally; in this text, I will refer to her by the pseudonym "Olivia," and I will not mention potentially identifying details about her, including her year of residency or a detailed description of her work. I decided to offer artists the option to waive anonymity because, given that they routinely expressed their thoughts in print on the subjects I was asking about in the course of their work, any risks associated would be minimal—and that, given the highly idiosyncratic nature of many of the artists' projects at RAIR, any substantial engagement with their work would be inherently identifiable. In this approach, I followed scholars like Banu Karaca, Christine Beaudoin, and Francisco Martínez, all of whom conducted participant observations and interviews with both named and anonymous artists at named residency programs. Martínez, "Putting Objects to Work"; Karaca, *The National Frame*; Beaudoin, "Remaking (Post-)Human Bodies in the Anthropocene through Bioart Practices."

<sup>22</sup> The frequent errors in Zoom's automatic transcriptions made listening back through the recordings and making these corrections almost as labor intensive as transcribing from scratch—on average, I found that using the captioning only reduced the time it took to produce a polished transcript by about 25%. I offered all my interlocutors the option to request to have me take notes instead of capturing audio, but all consented to be recorded.

about their personal and artistic connections to Philadelphia.<sup>23</sup> Though I would follow the flow of the conversation to some degree, asking questions about topics as they came up, I tended to maintain the general structure from my outline. I asked some follow-ups, especially relating to artists' attitudes towards materiality, but I generally limited these questions to asking an artist to elaborate on something specific they had previously told me.

In terms of projects and demographics, my interlocutors were extremely diverse.<sup>24</sup> The artists I interviewed ranged in age from their mid 20s to around 60, though most were between their mid 30s and early 50s. Seven were women and five were men; about half identified as non-white, with one artist discussing identifying as Black, two as Latinx or Latino, and several others as Asian, and several discussed identifying as LGBTQ. Eight of my interlocutors were born in the US; of the four who were born in other countries, half resided in the US at the time of our interview and half did not. The artists' preferred media varied even more widely. I spoke with people trained in architecture, painting, journalism, operatic performance, several forms of dance, filmmaking, nonprofit leadership, sculpting, choreography, communications, performance art, dramaturgy, acting, and Islamic Studies; at RAIR, artists created works they described as sculptures, photographs, performances, "social practice installations," musical numbers, dances, fabrication processes, and more. Consider the range of projects pursued just by the three 2022 residents I interviewed: Narendra Haynes made "living sculptures" out of Styrofoam that was actively being consumed and converted into soil by a colony of mealworms, while Anamaya Farthing-Kohl and Nathalie Wuerth collaborated to hold a series of workshops, based on a poem by Audre Lorde, that culminated, in

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<sup>23</sup> See Appendix II for a list of interview questions and Appendix III for a copy of the consent form

<sup>24</sup> I did not ask about demographics directly, but most artists mentioned important identities in our interview or in print, enabling me to make broad characterizations of my overall sample. Appendix I contains an artist-by-artist list of artists' year of residency, approximate age, and project type.

part, with a novel fabrication system for weaving refrigerator-sized appliances into textiles. (For brief descriptions of each project, refer to Appendix I.)

In another sense, however, my interlocutors were deeply homogenous. All were college graduates, and nine held (or were currently studying for) post-graduate degrees. Many, moreover, had graduated from prestigious universities or conservatories, including Princeton, PAFA, UC Berkeley, Cambridge, and the University of Virginia; strikingly, a quarter of my interlocutors had gone to Penn. More than half of the people I spoke taught at colleges or universities, either currently or previously, and several were tenure-track professors. In so many words: the people I spoke were very well educated. On one level, this is deeply unsurprising: of course, the artists selected for a prestigious residency program commanded a great deal of social and cultural capital. However obvious it may have been, though, this homogeneity profoundly shaped my data. As a Swarthmore student (and the only child of two academics), I felt very comfortable speaking with all of the artists—to some extent, I believe, because we shared a common language. My interlocutors, moreover, uniformly seemed to enjoy being asked abstract questions about the nature of their relationships with objects; several, in fact, told me in our post-script conversations how much fun it had been to reflect on their practice at a high level in such a sustained way. While this homogeneity in no way invalidates anything my interlocutors told me, it does represent an important factor that shaped both their experiences with the waste and the way they described those experiences. As coming chapters will show, the artists I interviewed told me about their time at RAIR through vivid stories replete with the sort of rich metaphors that are ripe for explication by social theory. I believe those stories do genuinely reflect their experiences—but I also think that their language is so well-suited for this sort of explication in part because their professional roles meant that everyone I spoke with was a highly creative person who had read a lot of social theory and received training in

particular communicative idioms. This will be important to keep in mind throughout the text—especially given Philadelphia’s yawning inequities, which the final chapter will explore in more depth.

### Thesis Overview

This remainder of this thesis will be divided into four main sections, followed by an afterword and several appendices. Chapter 2 will review existing scholarship and contextualize my project in its context. I will begin with a brief discussion of the existing anthropological literature on waste, which, I will argue, do not adequately address materiality; then, the chapter’s focus will shift to the broad category of interventions called “new materialisms.” The end of the chapter will introduce the work of Karen Barad, discuss why their theory in particular is particularly well suited to reshaping the anthropology of waste, and discuss how I will apply it in this thesis. Then, the thesis shifts to the artists’ stories. Chapter 3 considers how people and objects “intra-act” in the RAIR yard in phenomena of sensing, materialization, and storytelling. The discussion shows how a Baradian performative “onto-epistemology” explains the waste stories the artists told me far better than other new materialisms or existing anthropologies of waste. The remainder of the thesis will explore the inexorably connected “apparatuses” of pulling objects from the waste stream and remaking them into artwork. Chapter 4 focuses on pulling and remaking, exploring these processes in relation to Barad’s notion of posthumanism. Specifically, the chapter shows how pulling constitutes a performative, boundary-drawing apparatus that reshapes the object, reconstitutes the past, and redefines the human. Chapter 5 probes the implications of these boundary redefinitions and Barad’s ethical concepts of responsibility and objectivity; it will discuss how artist-object intra-actions at RAIR remap the city of Philadelphia and resituate it in broader cosmopolitan landscapes and explore the complex dynamics of how object-human intra-actions reshape human-human(-object) relationships. Throughout the thesis, I will encounter, and set aside, questions of *accountability*. I will return to them in the afterward, where I will briefly consider the broader stakes of following a

Baradian reading—and where I will suggest that my data show a need to extend Barad’s understanding of object-human relationships to recenter social inequities.

## **CHAPTER TWO: THE NEW MATERIALIST TURN**

This literature review will focus on new materialism, the contemporary theoretical school that offers a non-anthropocentric, ontological alternative to the epistemology-driven frameworks that have dominated theory since the so-called discursive turn. I will begin, however, by surveying the anthropology of waste, considering both of its primary contemporary schools—and briefly accounting for why they are ripe for a materialist intervention. Then, I will offer an overview and a genealogy of the new materialisms and compare some major approaches with the field, paying specific attention to how different thinkers formulate the relationships between epistemology and ontology and how they define/engage concepts of (non)human agency. I will then introduce the work of Karen Barad, the new materialist upon whose theory I will build a reading of RAIR, and I will briefly discuss some of their key ideas in order to motivate future chapters. The chapter will close on a methodological note: before turning our attention to the artists, it will briefly survey *how* this thesis will engage in a Baradian methodology.

Before proceeding, however, a brief note on a vast literature that this chapter will *not* engage in depth: the anthropology of art. In recent years, this subfield has come, as Jeremy MacClancy writes, “much closer to the center stage of the [anthropological] discipline than at any period since the early 20th century.”<sup>25</sup> This prominence dates back to the 1980s, as the anthropology of art simulatenously anthropology of art’s poststructuralist and decolonial turns, which destabilized the boundaries between, on the one hand, the “ethnoaesthetics” that built on Bronislaw Malinowski’s study of Trobriand yam cultivation and Franz Boas’ formulation of Yupik needle-case “virtuosity” and, on the other, the scholarship following Western art-theoretical formulations, like Clement

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<sup>25</sup> MacClancy, “Art/Aesthetics.”

Greenberg's modernist "material formalism."<sup>26</sup> Broadly, though, this newfound prominence has not resulted in a corresponding theoretical alignment among scholars. On the contrary, as the category of art has been "destabilized," so too has its anthropology embraced a diverse array of approaches—everything from critical indigeneity and visual/communications studies theories to experimental mixed-method ethnography—and topics—including trans-national artistic imaginaries, a renewed study of aesthetics, and attention to the social practices of artistic production and consumption.<sup>27</sup> Overall, however, this thesis will not consider these literatures in detail, because the questions that motivate it are not *about art per se*. Since this thesis is, ultimately, about materiality, and the relationships between humans and objects, the anthropology of waste and the new materialisms represent much more relevant literatures.<sup>28</sup> While most of this thesis will consider art-making, it will examine it as a specific practice of engaging with material, and will explore art-specific dynamics only insofar as they are relevant to these broader questions.

### From *Purity and Danger* to "Garbology": The Anthropology of Waste

Waste anthropology generally falls into one of two broad camps: structural-symbolic scholarship, which builds on the work of Mary Douglas, and discard studies, which focus on waste

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<sup>26</sup> Barrett and Bolt, *Carnal Knowledge*, 4–5; Kisin and Myers, "The Anthropology of Art, After the End of Art," 318–20; MacClancy, "Art/Aesthetics."

<sup>27</sup> Kisin and Myers, "The Anthropology of Art, After the End of Art"; MacClancy, "Art/Aesthetics."

<sup>28</sup> This is, of course, not to say that no theorists exist that address these issues within the anthropology of art; far from it. Two general theorists focused particularly on material seem especially relevant: Tim Ingold and Alfred Gell. I will discuss only the latter in the interests of concision. In the late 1990s, Gell argued for a "performative," "an-aesthetic" understanding of art as producing "indices": temporally specific social arrangements that produce a specific "cognitive operation...: the abduction of agency" from the individual. This has obvious resonances with the Baradian reading that I will offer here; but, ultimately, Gell's a) epistemologically "mediated" understanding of agency and b) sequestration of "art-like situations" from the rest of the social world both limit the utility of his theory for this project. A number of other theorists have also attempted to formulate new materialist readings of artistic practice, but these also broadly subscribe to non-performative schools—and, content-wise, most often cite authors dealing with the "biopolitical/bioethical" scholarly thread identified by Coole and Frost, as will be discussed later in this chapter. For some examples of such approaches, see, for instance, Fernández, "Posthumanism, New Materialism and Feminist Media Art"; Ravisankar, "Artmaking as Entanglement: Expanded Notions of Artmaking through New Materialism"; Rothman and Verstegen, *The Art of the Real*, chap. 1; Garber, "Objects and New Materialisms"; and, perhaps most notably of all, Jackson, "Forms of Life and Life Itself." For an intriguing Deleuzian/proto-Baradian approach, see Golańska, "Bodily Collisions." (Gell, *Art and Agency*, 13; MacClancy, "Art/Aesthetics"; van Eck, "Gell's Theory of Art as Agency and Living Presence Response.")



as a part of material culture with what Joshua Reno, a prominent contemporary waste anthropologist, calls “productive afterlives.”<sup>29</sup>

In *Purity and Danger*, Mary Douglas traces the concept of pollution through a variety of contexts, from the sumptuary laws of the Torah to the hunting practices of the Lele people in Central Africa. Famously, she formulates dirt as “matter out of place,” a category produced and defined by ritual acts of rejecting those objects that do not belong in cultural systems of classification. Thus, “pollution ideas work in the life of society at two levels, one largely instrumental” through which people pragmatically “try to influence each other’s behavior,” and “one expressive,” where “pollutions are used as analogies for expressing a general view of the social order.”<sup>30</sup> In short, as Reno summarizes, “rubbish,” like other polluting items, is “categorized as objectionable” because it “stand[s] in for a basic cognitive, existential, or linguistic dilemma: a need for meaningful order in a world without it.”<sup>31</sup> Many subsequent scholars have built on Douglas’ approach in their own structuralist analyses of trash as discursively-mediated, from Maurizia Boscagli’s analysis of how “cultural syndromes surrounding the trashed object track the shifting meaning of materiality” in contemporary Western consumer culture to Laurence Douny’s exploration of Dogon communities view their own trash differently from that left by foreign tourists.<sup>32</sup> Broadly, though, Douglas’s approach has attracted criticism for its rigid structuralism, which may preclude more detailed accounts of materiality, and its focus on “primitive” cultures (and reification of that colonial category), which scholars have argued limits its applicability to both

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<sup>29</sup> Reno, “Waste and Waste Management,” 538. In this division, I broadly follow Joshua Reno’s brilliant 2014 paper “Towards a New Theory of Waste.”

<sup>30</sup> Douglas, *Purity and Danger*, 2–4.

<sup>31</sup> Reno, “Waste and Waste Management,” 558.

<sup>32</sup> O’Hare, “Waste”; Reno, “Waste and Waste Management”; Boscagli, “Garbage in Theory: Waste Aesthetics,” 228.

industrial societies and complex contemporary global waste flows.<sup>33</sup> Discard studies have therefore largely supplanted the structural-symbolic account as the primary model in the field.<sup>34</sup>

Broadly, the term “discard studies” refers to two related turns in the anthropology of waste: one that centered materiality, viewing the waste stream as a powerful window to examine material culture, and a complementary strand that examined the systems of waste management and circulation and their implications for understanding society.<sup>35</sup> In 1973, William Rathje pioneered the first approach (often called “garbology,” a term Rathje coined) with the launch of his broadly cited Garbage Project at the University of Arizona, which began as an effort to collect and compare MSW from households in high- and low-income Tucson neighborhoods as a way to understand material culture.<sup>36</sup> Over the next 30 years, the project expanded, producing a number of widely cited studies of Tucson and several related projects around the world, which combined Rathje’s waste characterization studies with excavations of landfills.<sup>37</sup>

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<sup>33</sup> For a powerful argument that Douglas’ ideas’ “applicability to the modern world is questionable,” given their reliance on ideas of “the primitive” and their “rubbish idealism” that abstracts out materiality, see O’Brien, *A Crisis of Waste?*, 9, 133, chap. 6. Even Douglas herself, reflecting on *Purity and Danger* later in her career, regretted not addressing industrialized societies more directly; see 6 and Richards, “Mary Douglas.”

<sup>34</sup> Reno, “Waste and Waste Management”; O’Hare, “Waste”; Alexander and O’Hare, “Waste and Its Disguises.” This should not be read as a neat teleology; some contemporary scholars push back on discard studies from a structural-symbolic point of view. For instance, in his study of MSW in a Peruvian provincial capital, the Swedish anthropologist Michael Drackner argues that understanding the “subjective” issue of “what is waste, to whom”—and how those designations in turn mark people associated with waste as debased—is a key issue frequently “forgotten” by contemporary analyses that focus on “waste management systems.” Drackner, “What Is Waste?,” 175–76.

<sup>35</sup> Alexander and O’Hare, authors of the most contemporary review of the field, argue for a more theoretical division of non-structural-symbolic approaches between “economic/materialist approaches” and “more-than-human-interspecies approaches,” but given the wide variety of practices and projects subsumed within the field of discard studies, I find a topical division more useful. Alexander and O’Hare, “Waste and Its Disguises.”

<sup>36</sup> Lane and Rathje, “A Conversation with William Rathje.”

<sup>37</sup> Graesch, Maynard, and Thomas, “Discard, Emotions, and Empathy on the Margins of the Waste Stream”; Rathje, “Modern Material Culture Studies”; Reno, *Waste Away*; Church, “Archaeology of Garbage.” In fact, Anthony Graesch, an anthropologist at the University of Connecticut, and Robin Nagle, the pioneering Anthropologist-in-Residence at the New York City Department of Sanitation, performed such a waste characterization study at RAIR in 2017-18, as part of the interdisciplinary “Digging Deeper” supported by the site’s first large Pew grant. The project, which also involved interviews/labor observation with Revolution Recovery workers, culminated in an exhibition, a colloquium, and several pilot project proposals, but, as far as I have been able to determine, no published scholarship to date. Several artists told me they’d met Graesch during their time at RAIR; Nathalie, with her past as a social scientist, described his ideas as influential to her artistic practice at the site. See “Digging Deeper”; “April at GALLERY Land Collective.”

The second approach embeds this attention to material specificity in a broader examination of “systems of waste and wasting.”<sup>38</sup> Joshua Reno, an influential waste scholar who bridges both approaches, summarizes the questions posed by these systemic discard studies as “(a) what specific capacities and affordances characterize waste materialities, their management, and their meaning; (b) who manages wastes and what do they become together...; and (c) how do specific wastes circulate?”<sup>39</sup> These ideas were pioneered by Michael Thompson’s 1979 *Rubbish Theory*, which explored the act of producing rubbish through the sapping of an object’s (symbolic and, especially, economic) “value.”<sup>40</sup> Thompson’s work, however, was neglected until recently; far more influential in the development of the field was Arjun Appadurai’s 1986 *The Social Life of Things*, whose “object biographical” method emphasized how circulation affects the meaning and value of objects more generally.<sup>41</sup> Some waste anthropologists, building on this approach, understand waste as a specific “material type” that “indexes the presence of people and processes that produced it without those people having to be present.”<sup>42</sup> Other scholars examine the specific “waste regimes” constituted by governance practices in particular jurisdictions and the infrastructural dynamics of waste management systems; Sophia Stamatopoulou-Robbins elegantly unites these two threads in her explication of the complex interactions of waste objects, governance, and infrastructure in constituting a state of “waste siege” that powerfully shapes daily life in occupied Palestine.<sup>43</sup> Still other important trends examine the experiences of waste workers, the geographies of waste and the “garbage imperialism” enacted by their international trade, and the creative possibilities of transforming waste implied by informal “waste-picking” economies in the developing world.<sup>44</sup>

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<sup>38</sup> Liboiron and Lepawsky, *Discard Studies*, 3.

<sup>39</sup> Reno, “Waste and Waste Management,” 558.

<sup>40</sup> Reno, “Foreword”; O’Hare, “Waste.”

<sup>41</sup> Reno, “Foreword”; Bauer, “Itinerant Objects”; Alexander and O’Hare, “Waste and Its Disguises.” As both Graesch and Alexander and O’Hare note, Appadurai’s formulation was also heavily influential for garbology.

<sup>42</sup> Stamatopoulou-Robbins, *Waste Siege*, 8.

<sup>43</sup> Alexander and O’Hare, “Waste and Its Disguises”; Stamatopoulou-Robbins, *Waste Siege*.

<sup>44</sup> Reno, “Waste and Waste Management”; O’Hare, “Waste.”

Importantly, though, as Reno notes, most scholarship focuses on “informal waste recyclers” in developing countries; detailed studies of practices in “sociotechnical systems of disposal,” such as those found in the “Global North,” are far less common, representing an important “deficit in the literature.”<sup>45</sup> What scholarship does exist on the waste systems of wealthy countries, moreover, tends to focus either on the practices of formal infrastructural laborers (as with Reno and Robin Nagle’s ethnographies of sanitation work in Michigan and New York, respectively) or, to the extent that it addresses informal waste practices at all, to focus on the informal infrastructural labor of marginalized groups (as with Theresa Gowan’s powerful 2010 ethnography of homeless “pro-recyclers” in San Francisco).<sup>46</sup> An ethnographic treatment of a site like RAIR, therefore—an examination of “creative” waste practices in a relatively privileged group, within a context that is neither informal nor infrastructural, at least in the traditional sense—thus addresses an important gap in the existing anthropology of waste.

Even more importantly, the field is ripe for both a materialist intervention broadly and a Baradian reformulation in particular. As Joshua Reno wrote in 2014, most discard studies work, like its structuralist predecessors, was still “more or less constructivist and anthropocentric,” insofar as it theorized waste “as a distinctly human way of leaving behind,” “a mirror of culture,” and/or “within a framework that privileges...meaning over materiality and...death over...life.”<sup>47</sup> Accordingly, since the mid 2010s, several scholars have published accounts of waste that challenge these anthropocentric assumptions and take the role of material more seriously. These reformulations, however, do not go far enough—but understanding the reasons why requires some familiarity with the new materialisms.

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<sup>45</sup> Ibid. See also the discussion of how “the subjects most commonly explored in relation to waste are the waste-picker and the refuse worker” in Alexander and O’Hare, “Waste and Its Disguises,” 7.

<sup>46</sup> Gowan, *Hobos, Hustlers, and Backsliders*; Reno, *Waste Away*; Nagle, *Picking Up*.

<sup>47</sup> Reno, “Toward a New Theory of Waste.”

### New Materialisms: Scope

The scope of new materialist scholarship is very broad. In their widely cited summary of contemporary feminist materialisms, Susan Hekman and Stacy Alaimo describe the field as inherently interdisciplinary, because “attending to materiality erases the commonsensical boundaries between human and nature, body and environment, mind and matter”—in fact, “taking matter seriously entails nothing less than a thorough rethinking of the fundamental categories of Western culture” to the point where they are “nearly unrecognizable.”<sup>48</sup> In the introduction to another prominent collection, Rick Dolphijn and Iris van der Tuin write that “a new [materialism] does not add something to thought...it rather...rewrites thinking *as a whole*...redirecting every possible idea according to its new sense of orientation.”<sup>49</sup> And Barad perhaps goes even further, writing that their “new philosophical framework...entails a rethinking of fundamental concepts...including the notions of matter, discourse, causality, agency, power, identity, embodiment, objectivity, space, and time”; for them, taking quantum mechanics seriously entails such a shift that “it may not be too much of an exaggeration to say that every aspect of how we understand the world, including ourselves, is changed.”<sup>50</sup> Accordingly, providing a remotely comprehensive account of new materialism, or even a comprehensive critical reading of Barad’s work, lies well beyond the scope of this thesis. Instead, this chapter will briefly outline some of the major themes and debates within new materialism, emphasizing those concepts that are important to understand in order to contextualize Barad or the site of this thesis. In the sections that follow, this literature review will broadly follow Christopher Gamble, Joshua Hanan, and Thomas Nail’s 2019 classification of new

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<sup>48</sup> Alaimo and Hekman, *Material Feminisms*, 17.

<sup>49</sup> Dolphijn and van der Tuin, *New Materialism*, 13.

<sup>50</sup> Barad, *Meeting the Universe Halfway*, 23, 26.

materialist scholarship into “three distinct and partly incompatible trajectories,” which they label “vital,” “negative,” and “performative.”<sup>51</sup>

### New Materialisms: Definitions and Antecedents

Before the chapter proceeds into an examination of these three schools, however, this section will address in more detail what new materialism actually *is*. Given the diversity of approaches described as new materialism, it should perhaps be unsurprising that definitions of the field remain contested.<sup>52</sup> For the purposes of this literature review, I will compile a (necessarily incomplete) working definition that draws from several authors. Van der Tuin and Dolphijn rightly identify the new materialism as a set of projects in laying out a “new metaphysics” that (as Gamble et al. describe) “share” a “common theoretical commitment to problematize the anthropocentric and constructivist orientations of most 20<sup>th</sup> century theory”; importantly, as summarized by the art theorist Barbara Bolt, “what draws all these theories under the one umbrella ‘materialism’ is an understanding...that all entities and processes, including human beings, are composed of...material forces.”<sup>53</sup> As Coole and Frost point out, the new materialisms also share a commitment to

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<sup>51</sup> I find Gamble et al.’s classification more useful than those offered by any the three widely cited sources that lay out overviews of new materialisms: the aforementioned works by Alaimo & Hekman and Dolphijn & van der Tuin, along with Samantha Coole & Diana Frost’s introduction to *New Materialisms: Ontology, Agency, and Politics*.<sup>51</sup> Aside from (pragmatically) simply being more recent than the other three works, Gamble et al. offer the clearest categorization of different epistemological and ontological approaches, which makes it more useful in highlighting the *differences* between authors. Dolphijn and van der Tuin (and, to a lesser extent, Alaimo and Hekman) aim instead to produce syncretic understandings; Alaimo and Hekman’s work also explicitly confines its focus to feminist approaches, which, while certainly crucial, are not the only salient approaches in the field. Coole and Frost offer the most compelling alternative, identifying three broad topical threads: an “ontological reorientation” towards “posthumanism,” scholarship that considers “biopolitical and bioethical” considerations, and works that focus on a “nondogmatic reengagement with political economy.” Pragmatically, bioethical and political economy-related scholarship is only tangentially relevant to this thesis’s subject matter and approach; more broadly, though, I agree with Gamble et al.’s assessment that Coole and Frost align themselves too closely with what they call the “vitalist” argument to effectively contrast approaches within the broader field. While I’ll follow Gamble et al.’s classification, however, I will extend my discussion to authors they do not directly address.

<sup>52</sup> Indeed, in the introduction to *What if Culture Was Nature All Along*, a prominent work of new materialist theory, Vicki Kirby writes that “I want to sidestep a definition of...new materialism, because its identity is often contradictory and its cross-disciplinary rationalisations and commitments quite muddled.” What a striking move—especially from a major theorist in the field, writing in a section entitled “New Materialism in Review”! Kirby, *What If Culture Was Nature All Along?*, 8.

<sup>53</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 111; Barrett and Bolt, *Carnal Knowledge*, 2; Dolphijn and van der Tuin, *New Materialism*, 13.

undermining the Cartesian (and Newtonian) assumptions that underlie almost all Western epistemology: the ideas that “nature is quantifiable and measurable,” “material objects are identifiably discrete,” and, accordingly, the “thinking subject” that is “ontologically other than”—and “maste[r]” over—passive “matter.”<sup>54</sup> New materialists, by contrast, “describ[e] active processes of materialization of which embodied humans are an integral part.”<sup>55</sup> In short, new materialists do not merely challenge the post-structuralist paradigm in which matter was structured by an agential discourse; they also set out to reconfigure the oppositional categories of subject/human/discourse and object/nature/matter themselves.

To support their project, new materialists build upon the work of a dizzyingly diverse array of prior thinkers, citing as antecedents ancient poets like Lucretius, Democritus, and Epicurus; physicists, from Bacon, Leibnitz and Newton to Einstein, Bohr, and Schrodinger; philosophers, including Nietzsche, Spinoza, and Kant; anthropologists like Mauss, Malinowski, and Appadurai; and (especially) critical theorists, including Foucault, Deleuze, and Lacan.<sup>56</sup> Perhaps the two most influential fields, however, are feminist theory and science studies—and perhaps the single most influential voice, at least for the strain of new materialism considered in this thesis, is Judith Butler.<sup>57</sup>

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<sup>54</sup> It’s important to note that, as Coole and Frost write, a “trait” shared by “much of the new materialism,” Barad’s work included, “is its antipathy to oppositional ways of thinking”; such thinkers thus “generally decline to locate themselves explicitly through critiques of an ontological dualism,” instead “prefer[ring] a creative affirmation of a new ontology” that is “post- rather than anti-Cartesian” and “avoid[ing] dualism or dialectic[s]” via “a monological account of . . . material being.” Media studies scholar Eleonora Stacchiotti puts this into sharper relief vis-à-vis contemporary theory, noting how “new materialists . . . are not denying the importance of the more established linguistic or constructionist turns but are rather building on their findings as a way to include material bodies, spaces and conditions.” (Coole and Frost, *New Materialisms*, 8; Stacchiotti, “New Materialism.”)

<sup>55</sup> Coole and Frost, *New Materialisms*, 7–8. This perspective, included because it is shared by most new materialists and most of the scholars that will be important to this thesis, is not strictly universal in the field; as I will show, some negative new materialists would disagree.

<sup>56</sup> Barrett and Bolt, *Carnal Knowledge*, 3; Gamble, Hanan, and Nail, “What Is New Materialism?,” 113–16; Alaimo and Hekman, *Material Feminisms*, 1–8; Barad, *Meeting the Universe Halfway*; Saxer and Schorch, “Introduction,” 1–4. Jessica Horton and Janet Berlo also detail important resonances between new materialist arts scholarship and indigenous North American thought, which they argue have gone largely unacknowledged within new materialist scholarship on the topic; see Horton and Berlo, “Beyond the Mirror.” Incidentally, Barad’s agential realism also strongly reminds me of the peculiar non-dialectical oppositions found in the “unity of opposites” of the pre-Socratic philosopher Heraclitus—consider his well-known dictum “it is in changing that things find repose” (see Wheelwright, *The Presocratics*.)

<sup>57</sup> Alaimo and Hekman (persuasively) trace the origins of new materialism to two simultaneous movements: the efforts of “feminist theorists of the body” to escape the discursive turn and “talk about the materiality of the body itself” and

In fact, some scholars even argue that all new materialism can be reduced to an explication of their theory.<sup>58</sup> In *Bodies that Matter*, Butler introduces a *performative* concept of materiality. They respond to constructivist readings of the body with a “return to the notion of matter” not as a fixed “site or surface,” but rather the result of “a process of materialization that stabilizes over time.” In an important way, Butler’s extension of a “Foucaultian [sic]” notion of “regulatory power” from “productive” to explicitly “materializing effects” prefigures the performativity of Barad’s agential realist onto-epistemology.<sup>59</sup> As Gamble et al. summarize, however, Butler’s work understands the relationship between material and discursive as driven by “the perpetual ongoing failure of human discourse to ever fully or completely capture matter” through the notion of “iterative citationality.”<sup>60</sup> This means that for Butler, as Vicki Kirby writes, the “only thing that can be known about [matter] is that it exceeds representation”—which, as Barad puts it, “ironically” undermines “Butler[‘s own] calls for the recognition of matter’s historicity” by “assum[ing] that it is ultimately derived (yet again) from the agency of language or culture.”<sup>61</sup>

### New Materialisms: Vital, Negative, and Performative Approaches

Let us now turn our attention to new materialism itself. As I have shown, new materialists “embrac[e] a non-anthropocentric realism grounded in a shift from epistemology to ontology and the recognition of matter’s intrinsic activity,” regardless of which of Gamble et al.’s three schools the theorists fall into.<sup>62</sup> Those schools diverge, however, in how they conceptualize the relationship

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work by theorists in science studies, including Bruno Latour, Sandra Harding, and Andrew Pickering, that “combine social construction with an understanding of the ontology and agency of the material world”; it is critical to acknowledge these feminist origins explicitly. Alaimo and Hekman, *Material Feminisms*, 3–5.

<sup>58</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” n. 48; Ahmed, “Open Forum Imaginary Prohibitions,” 33.

<sup>59</sup> Butler, *Bodies That Matter*, 9–10; Barad, *Meeting the Universe Halfway*, chap. 1.

<sup>60</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 118.

<sup>61</sup> Barad, *Meeting the Universe Halfway*, 64; Vicki Kirby, *What If Culture Was Nature All along?* (Edinburgh: Edinburgh University Press, 2017), quoted in Gamble, Hanan, and Nail, “What Is New Materialism?,” n. 52.

<sup>62</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 118.



between ontology and epistemology, how they allocate agency, and the remaining role they ascribe to humans.

First, the vitalist approach: this “post-Deleuzian” school is, as Gamble et al. outline, “by far the most prevalent type...so much so that it tends to overshadow the other two kinds.”<sup>63</sup> Strikingly, Jane Bennett, one of the most prominent theorists of such an approach, opens her book *Vibrant Matter* with a description of looking at trash and being struck by its “singularity” and “power...not Flower Power, or Black Power, or Girl Power, but *thing-power*: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle.”<sup>64</sup> More broadly, Bennett aims to “theorize a vitality intrinsic to matter as such,” a “vibrant matter” that “is not the raw material for the creative activity of humans or gods.”<sup>65</sup> Bennett, like other vitalists, draws heavily on the actor-network theory (commonly abbreviated ANT) of Bruno Latour, a scholar of technology who seeks to deconstruct “subject versus object” distinctions, instead “arguing for approaching machines and other artifacts,” as well as a broad variety of natural systems, “as ‘actants’ endowed with volition.”<sup>66</sup> The details of ANT are complex, but the “‘project’ of the theory,” as Hornborg quotes Latour describing it, “‘is simply to extend the list’ of ‘who and what participates’ as ‘full-blown actors in society.’”<sup>67</sup> Gamble et al. thus summarize the key shared commitment of the vitalist approach as

...the ontologizing of an *imminent activity* of vital forces *minus* the mechanistic passivity of [Cartesian] matter. Vital matter is...neither deterministic, deistic, naturalistic, nor epistemological. Vital matter is not something constructed by human consciousness, language, or social structures – nor is it something that enables their construction through their failure to fully capture it – but is really and actually creative in itself.<sup>68</sup>

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<sup>63</sup> Gamble, Hanan, and Nail, 119.

<sup>64</sup> Bennett, *Vibrant Matter*, 4,6. Emphasis in original.

<sup>65</sup> Bennett, xiii.

<sup>66</sup> Hornborg, “Objects Don’t Have Desires,” 754.

<sup>67</sup> Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford Univ. Press, 2008), 78, quoted in Hornborg, 756. I am eliding the details of ANT because they are not relevant to this thesis; for an excellent summary of the theory and some of its critical responses, see Fabian Muniesa, “Actor-Network Theory,” *International Encyclopedia of the Social & Behavioral Sciences*, March 2015, pp. 80-84, <https://doi.org/10.1016/b978-0-08-097086-8.85001-1>.

<sup>68</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 120. Emphasis in original.

In short, vital new materialists theorize that material objects, like people, possess some animating force that gives them intrinsic agency, which then requires both a re-prioritizing of ontology vis-à-vis epistemology and a broadening of the category of epistemology's thinking subject.<sup>69</sup> Some implications of this approach can be seen in Bennett's well-known discussion of how to assign responsibility for a catastrophic blackout. Instead of simply blaming negligent engineers or greedy energy executives, she describes an "ensemble nature of action" that also implicates myriad grid components; ultimately, she concludes that "individuals," human or nonhuman, are "simply incapable of bearing *full* responsibility for their effects," reframing people's "ethical responsibilities" in terms of how they "respon[d] to the assemblages in which [they]...participat[e]."<sup>70</sup>

Such broad attributions of non-human agency, however, raise equally broad problems. As Gamble et al. point out, "vital new materialism is not so much about *materialism* as it is about the forces of an ontological *vitalism*"; since agency is attributed as a property of all things, the "multiplicity of material practices" are "flattened" into a "vague ontology of force in general"—making vitalism seem less like a genuine theory of materiality than an idealist ontology outlined in materialist language.<sup>71</sup> By shifting agency away from humans or their specific engagements, such approaches invite troubling political conclusions. In his blistering 2021 critique of vitalist theory, Alf Hornborg argues that "in their efforts to attribute agency...to abiotic objects, theorists of the material turn...attribut[e] properties of living beings to nonliving things, invit[ing] what Karl Marx recognized as fetishism," that is, regarding products of social relations as properties of autonomous

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<sup>69</sup> Aside from Bennett and Latour, other important thinkers within this broad perspective include the philosophers Manuel DeLanda and Rosi Braidotti, the feminist theorists Elizabeth Grosz, Iris van der Tuin, and Diana Coole, and the post-humanists Samantha Frost and, to some extent, Anna Tsing and Donna Haraway. DeLanda, "The New Materiality"; Diener, "New Materialisms"; for a discussion of Haraway, see Hornborg, "Objects Don't Have Desires," 757, and Coole and Frost, *New Materialisms*; for a discussion of Grosz, see Gamble, Hanan, and Nail, "What Is New Materialism?," 120.

<sup>70</sup> Bennett, *Vibrant Matter*, 37. See also Hornborg's discussion of Bennett's perspective on agency in "Objects Don't Have Desires."

<sup>71</sup> Gamble, Hanan, and Nail, "What Is New Materialism?," 120.

objects.<sup>72</sup> By making it impossible to attribute agency to individual human actors (as in the case of Bennett’s study of the blackout, for instance), in essence, vitalism makes it impossible to attribute *accountability* for harms, which has dangerous implications in the context of a world of tremendous injustice, inequity, and violence. Therefore, as Hornborg points out, vitalist theories “obscure the social basis for” the “efficacy” of “modern technologies [that] are conventionally understood as politically neutral devices for putting nature to work...[but] upon closer analysis...reveal themselves to be strategies for displacing work and environmental loads onto other sections of world society.”<sup>73</sup> Additionally, as I will show later in the thesis, my data do not support a vitalist reading; though the artists at the site described objects as active, they did not experience them as *possessing* agency in the way that vitalists would propose.

Almost universally, existing new materialist approaches to the anthropology of waste fall into the vitalist school—conceiving of waste itself, or non-human actors within the waste stream, as *actors that have agency*.<sup>74</sup> For instance, Myra Hird’s 2013 study of Canadian landfills emphasizes the multitude of non-human biotic and abiotic “actors” that shape decomposition, while Jacob Doherty’s study of storks in Kampala, Uganda, leads him to consider them “co-workers” in the city’s waste “infrastructure” in their own right.<sup>75</sup> Perhaps most influentially of all, in 2014, Reno proposed a theoretical reformulation in which “waste matter...is best construed not as

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<sup>72</sup> Hornborg, “Objects Don’t Have Desires,” 755.

<sup>73</sup> Hornborg, 762. After all, as Hornborg puts it, the “material efficacy of the machine—its physical capacity to conduct work—is not a mere revelation of nature but in equal measure a product of society,” and “the global machinations of technologies should be as susceptible to deconstruction as other forms of magic.” (Ibid.)

<sup>74</sup> One important exception is an earlier work along similar lines: Gay Hawkins’ 2006 *The Ethics of Waste*, an application of Latourian actor-network theory to a variety of (largely informal/biogenic) waste objects that Reno cites extensively. Notably, Hawkins builds a Benjaminian analysis of waste’s “transience,” in which remaking (and destroying) waste shapes subjectivities and opens spaces for building new connections—but her reliance on ANT limits the complexity of her analysis of human-object relationships. Hawkins, *The Ethics of Waste*, 129; Reno, “Waste and Waste Management,” 564; Reno, “Toward a New Theory of Waste.”

<sup>75</sup> Hird, “Waste, Landfills, and an Environmental Ethic of Vulnerability”; Doherty, “Filthy Flourishing.”

anthropocentric but as semi-biotic: a sign of the form of life to which it once belonged.”<sup>76</sup> These approaches, therefore, carry all the same flaws as the broader vitalist theory upon which they rely.

By contrast, negative new materialists challenge anthropocentric metaphysics on very different grounds. Broadly, this tradition can be divided into Quentin Meillassoux’s speculative realism and the Object-Oriented Ontology (universally abbreviated to OOO) of (among others) Timothy Morton, Graham Harman, and Tristan Garcia. The two approaches are united by a “theory that matter is *non-relationally* external to thought”; that is, a realism that still sees thought as exclusively human, but dismisses it as ultimately “immaterial.”<sup>77</sup> Alan Diaz describes how in Meillassoux’s speculative realism, the “intentionality of human thought” is irreconcilably separated from “a passive and indifferent being,” which is, as Gamble et al. note, itself “radically contingent,” such that it is “capable of producing...anything at all at any given moment.”<sup>78</sup> To object oriented ontologists, by contrast, objects’ real existences lie in an essence that is “withdrawn” from the world and does not relate to anything else, including human thought.<sup>79</sup> Matter, writ broadly—what Harman calls “things” and Morton calls “hyperobjects”—thus in OOO consists of, as Morton writes, “real entities whose primordial reality is withdrawn from humans,” and, as such, is never even in part conceptualizable by human thought.<sup>80</sup>

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<sup>76</sup> Reno, “Toward a New Theory of Waste.”

<sup>77</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 120–22. This school will not be discussed in great detail, as it is not used in this text. It is included for the sake of accounting for debates in the literature and because OOO is prominent in the contemporary art world, so some of my interlocutors are likely aware of it as they formulate their own perspectives on materiality. For example, when I asked Narendra how he “th[ought] about agency in the context of the mealworms,” which he had just called his “collaborators,” the sculptor laughingly responded, “I don’t think I’m an object-oriented ontologist, if that’s...[the] question!” See Kerr, “What Is Object-Oriented Ontology? A Quick-and-Dirty Guide to the Philosophical Movement Sweeping the Art World.”

<sup>78</sup> Meillassoux, “Iteration, Reiteration, Repetition: A Speculative Analysis of the Sign Devoid of Meaning”; Diaz, “On Meillassoux’s Critique of Vitalist Subjectalism”; Gamble, Hanan, and Nail, “What Is New Materialism?,” 121. Some scholars argue that OOO should properly be considered a subtype of speculative realism (*e.g.* Lemke, “Materialism without Matter.”)

<sup>79</sup> Kerr, “What Is Object-Oriented Ontology? A Quick-and-Dirty Guide to the Philosophical Movement Sweeping the Art World.”

<sup>80</sup> Kerr; Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis, USA: University of Minnesota Press, 2013), 15, quoted in Gamble, Hanan, and Nail, “What Is New Materialism?,” 122.

Critics of these theories, however, allege that their “non-relationality” compromise their usefulness in describing the world. One such prominent voice, the sociologist Thomas Lemke, argues that OOO/speculative realism’s “deliberate” foreclosure of relational considerations leaves as its only possible methodology an “aesthetic approach” that “seriously limits” the theory’s “theoretical and political purchase.”<sup>81</sup> This methodological limitation ultimately renders it less “materialism” than “subjectivism” (to Lemke) or, as the critical theorist Andrew Cole concludes, a blend of “idealism and mysticism.”<sup>82</sup> Like Hornborg, Cole also criticizes OOO’s insistence on “personifying” object essences as a form of fetishism, juxtaposing Harman’s call for categories “applicable to the primitive psyches of rocks and electrons as well as to humans” with the dancing table from *Das Kapital*, Marx’s famous illustration of commodity fetishism.<sup>83</sup>

The performative approach, exemplified by Barad and the Australian anthropologist Vicki Kirby, constitutes an alternative to both vitalist and negative interpretations. Fundamentally, performative new materialism erases the boundary between ontology and epistemology, arguing that the two are “inherently co-implicated and mutually constituting.”<sup>84</sup> Extending Butler’s theories, Barad and Kirby thus challenge agency’s “localization within individuals,” instead understanding it as something enacted within inter- (or, to Barad, intra-)actions between human and non-human actants—in stark contrast to vitalist approaches (which locate agency, and often interpretive capacity, in *everything*) and negative approaches (which, as Cole argues, essentially sidestep the

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<sup>81</sup> Lemke, “Materialism without Matter,” 133–38, 149–51. Lemke also notes the “troubling” (and telling) “disregard of feminist materialisms” within OOO, while Tompkins aptly notes how its framework is “mostly opposed” to the central concepts of critical race theory, queer theory, and feminist science studies. Lemke, 147; Tompkins, “New Materialisms.”

<sup>82</sup> Lemke, “Materialism without Matter”; Cole, “The Call of Things,” 107. In “Feminist New Materialist Practice: the Mattering of Methods,” Coleman, Page, and Palmer explicate in some detail why only methodologies of the type that this thesis calls performative don’t pose serious problems when put in conversation with feminist theory—and, relevantly for this project, they additionally make a compelling case for why such approaches are relevant for the study of practice.

<sup>83</sup> Cole, “The Uses and Abuses of Object-Oriented Ontology and Speculative Realism.”

<sup>84</sup> Gamble, Hanan, and Nail, “What Is New Materialism?,” 122.

question of agency entirely).<sup>85</sup> Thus, unlike vital or negative approaches, performative new materialism cannot be reduced to fetishism or idealism. Given Barad's centrality to both this approach to new materialism and the broader project of this thesis, their thought merits a separate section.

### "Meeting the [Disciplines] Halfway": Physics, Philosophy, and Karen Barad

Karen Barad is not a conventional scholar. The first in their family to attend college, they received a PhD in theoretical particle physics from Stony Brook University with a dissertation on quantum field theory and eventually held a tenured faculty appointment as a physicist.<sup>86</sup> Even while at Stony Brook, however, Barad describes reading "omnivorously"; in the 1980s, as they told an interviewer, their recognition that "laboratory practices are social practices" led them to "loo[k] to social and political theory" to better understand the work of Niels Bohr.<sup>87</sup> As their career progressed, more and more of Barad's scholarship concentrated on such ontological questions; currently, they hold a Distinguished Professorship of Feminist Studies, Philosophy, and History of Consciousness at the University of California at Santa Cruz.<sup>88</sup> Perhaps unsurprisingly, given this biographical sketch, the corpus of work that could fall under a "Baradian reading" is massive. Accordingly, this thesis will primarily draw upon Barad's 2007 book *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, the work in which they most clearly lay out their agential realist ontoepistemology. Even this book, however, is incredibly dense, and many readings could be drawn from it. In this thesis, therefore, I will focus on two central Baradian concepts—the interconnected ideas of "intra-action" and "apparatuses"—along with other related components of the theorist's work, including, among other concepts, the ideas of the "agential cut,"

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<sup>85</sup> Cole, "The Uses and Abuses of Object-Oriented Ontology and Speculative Realism"; Barad, *Meeting the Universe Halfway*, x.

<sup>86</sup> Juelskjær and Schwennesen, "Intra-Active Entanglements – An Interview with Karen Barad"; "Karen Barad, Distinguished Professor of Feminist Studies, Philosophy, and History of Consciousness."

<sup>87</sup> Juelskjær and Schwennesen, "Intra-Active Entanglements – An Interview with Karen Barad," 11.

<sup>88</sup> "Karen Barad, Distinguished Professor of Feminist Studies, Philosophy, and History of Consciousness."

“objectivity,” and “marks on bodies.” In the remainder of this section, I will give a brief overview of some of Barad’s theory, highlighting especially its (dis)continuities with other new materialist approaches; I will discuss prominent critiques of their work; and I will even more briefly introduce this thesis’ own Baradian methodology.

Barad’s work begins from a recognition of the connection between a Newtonian understanding of the physical world and a Cartesian metaphysics. As has been discussed, other new materialists powerfully challenge the latter—but Barad begins by undermining the former. As they point out, quantum mechanics has largely supplanted Newtonian mechanics in scientific models of the world. Barad thus sees their project as reconceptualizing both “physical or metaphysical notions that explicitly or implicitly rely on old [Newtonian] ideas about the physical world...in terms of the best physical theories we currently have.”<sup>89</sup> Building on the work of pioneering 1930s Danish particle physicist Niels Bohr, they argue that, in a very material, physical sense, “our ability to understand the world hinges on our taking account of the fact that our knowledge-making practices are social-material enactments that contribute, and are a part of, the phenomena we describe.”<sup>90</sup> Bohr, however, maintained a “liberal humanist conception of bodily boundaries”; for Barad, by contrast, not only properties but entities themselves are defined by phenomena—or, as they put it, their “production of bodily boundaries is not merely experiential, or merely epistemological, but *ontological*; what is at issue is...the nature of reality, not merely...human experience.”<sup>91</sup> This, then, is

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<sup>89</sup> Barad, *Meeting the Universe Halfway*, 24.

<sup>90</sup> Barad, 26. Bohr and Barad mean this in a very real, physical sense, not just a metaphorical one, because, as various experiments in particle physics demonstrate, “theoretical concepts are not ideational in character but rather specific physical arrangements”; “position,” for instance, “cannot be presumed to be a well-defined abstract concept; nor...an individually determinate attribute of independently existing objects. Rather, position has meaning only when an apparatus with an appropriate set of fixed parts is used.” (The precise scientific details are outside the scope of this thesis, but they will be discussed in slightly greater depth in Chapter 3.) Barad, 139.

<sup>91</sup> Barad, *Meeting the Universe Halfway*, 159–60. This concept is, of course, deeply resonant with poststructuralist theory as well; as Barad writes, just “as Foucault and Butler emphasize, power is not an external force that acts on a subject; there is only a reiterated acting that is power...only now, in my agential realist account, [Foucault’s] ‘moving substrate of force relations’ is not limited to the social—that is, the forces at work in the materialization of bodies are not only social, and the materialized bodies are not all human.” An alternative framing could interpret Baradian theory as an attempt to, as

what Barad means by “ontoepistemology.” Since “discursive practices and material phenomena do not stand in a relationship of externality to each other...the material and the discursive are mutually implicated” and cannot meaningfully be separated; how, then, could ontology and epistemology exist as coherent, distinct entities?<sup>92</sup>

Thus, in contrast to classical (Cartesian) metaphysics, which conceptualizes the world in terms of distinct bodies (objects and subjects) that act upon one another, the most reduced concepts in a Baradian framing are “phenomena,” the dynamic wholes produced by the “intra-action” of separate entities, and “apparatuses,” the particular configurations of the world that enact a given phenomenon.<sup>93</sup> As Barad puts it,

... Phenomena are constitutive of reality...The world is a dynamic process of intra-activity and materialization in the enactment of determinate causal structures with determinate boundaries, properties, meanings, and patterns of marks on bodies...it is through specific agential intra-actions that a differential sense of being is enacted in the ongoing ebb and flow of agency. That is, it is through specific intra-actions that phenomena come to matter—in both senses of the world.<sup>94</sup>

This, then, is the sense in which Barad’s theory is “performative.” Like other new materialists, they believe that “matter is both produced and productive...agentive, not a fixed quality of things”—but they see agency as a property of *phenomena*, not (human or non-human) individuals.<sup>95</sup> Agency, therefore, is not something that anyone, or anything, *has* in any meaningful sense; rather, agency is only meaningful as enacted by specific phenomena—which consist of the “intra-actions” between multiple (human and/or non-human) actors.

Barad’s work, therefore, represents a wildly different approach from their vitalist or negative new materialist counterparts. Because of its performativity, Barad’s approach does not fall victim to

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Barad puts it, “rethink power,” as formulated by Foucault and Butler, “in terms of its materializing potential.” Barad, 230, 235.

<sup>92</sup> Barad, *Meeting the Universe Halfway*, 184.

<sup>93</sup> Barad, 139.

<sup>94</sup> Barad, 140. The thesis will explore intra-activity in greater detail in Chapter 3.

<sup>95</sup> Barad, 137.



the critique of vitalist new materialism as idealism or fetishism. As such, it provides a promising framework through which to extend the anthropology of waste—and one which, as I will show, is robustly supported by my interlocutors’ accounts of their time at RAIR. In the pages that follow, this thesis will set out to heed Barad’s call for a “topological analysis” of “complex phenomena”: one that asks not just questions of “size and shape” but also “questions of boundary, connectivity, interiority, and exteriority.”<sup>96</sup> RAIR is just such a site: its work, fundamentally, deals with processes of remaking matter from the waste stream, and this requires an analysis that attends to the “connectivity of phenomena at different scales.”<sup>97</sup> Accordingly, in the pages that follow, I will try to do just that.

Critics of Barad, including the constructivist STS scholar Trevor Pinch and the historian of physics Sylvan Schweber, have focused on the close reliance of Barad’s broad ontoepistemological project on specific quantum mechanical experiments. Pinch writes of Barad speaking at a panel:

...she elegantly described the relevant experiments and their outcomes, but rather than deconstructing or contextualizing such experiments, she used the results to support her own position [agential realism]... Surprised by this turn of events, I asked her whether she thought it not more than a little odd that a metaphysical position in science studies should depend upon the outcome of experiments in physics... Her answer was even more surprising. She told me that she was happy for her work in science studies to stand or fall alongside the best work in physics. Ouch!<sup>98</sup>

Pinch develops this point into an argument that relying on experimental physics, in place of “earlier insights” from studies of “the cultural and social embedding of science,” constitutes a perilous “scientism.”<sup>99</sup> Schweber argues a similar point from an opposite disciplinary perspective, critiquing Barad’s appraisal of the merits of particular “approaches in fundamental physics,” arguing that other physicists would better ground their philosophical project.<sup>100</sup> Both critiques are also enmeshed in a

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<sup>96</sup> Barad, 244–45.

<sup>97</sup> Barad, 246.

<sup>98</sup> Pinch, “Review Essay,” 431–32.

<sup>99</sup> Pinch, 440.

<sup>100</sup> Schweber, “Karen Barad: *Meeting the Universe Halfway*,” 881.

broad argument that Barad presents their argument too confidently. Pinch writes that “when outlining her agential realism approach her writing changes from the crystal clarity of dealing with the physics to a series of very dense assertions...her book suffers somewhat from repetition and has been sloppily edited,” while Schweber asserts that “often she is carried away by her curiosity, wide interests, and erudition, by her expository skills and her ability to bend language to her will”<sup>101</sup>

To my reading, these critiques are deeply condescending, and it’s difficult not to read them as gendered; I will, however, set this question aside and address their broader substance. Barad certainly takes both quantum mechanics, and their own arguments, very seriously. Among many other similar moments, they claim that the “reductionistic” nature of other methodologies compels a “reassessment...based on the best physical notions we currently have”; argue that their approach uniquely represents a “rigorous simultaneous challenge” to the “representationalist” mode that runs through scholarship from Newton and Bohr to Foucault and Butler—and, at several points, even explain their own jokes (offering a “wink to Martin Buber”; “playfully wink[ing] at” a painting by “Magritt[e].”<sup>102</sup> The tone arguments deserve to be set aside; even if Barad does repeatedly assert how innovative and rigorous their methodology is and (over)explain their own jokes, that is not material to the content of their arguments. However, for what it’s worth, Marx, Foucault, and Deleuze also take their arguments very seriously—and, for that matter, despite (arguably) less paradigmatic stability in the social sciences, I’ve never read a critique of readings of those authors as too “dependent” on specific antecedent works liable to be rendered outmoded by future scholarship. Barad also addresses the potential for readers to “balk” at their value judgements of “theory,” warning that “it is a mistake to think that normative concerns entail a normative foundationalism,”

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<sup>101</sup> Pinch, “Review Essay,” 433; Schweber, “Karen Barad: *Meeting the Universe Halfway*,” 881.

<sup>102</sup> Barad, *Meeting the Universe Halfway*, 24, 135, 353 note 1, 466.

and that good theory should “tak[e] seriously what our best scientific theories tell us,” for only in so doing can one “call [science’s] authority into question on its own terms.”<sup>103</sup>

In Barad’s performative framework, the idea of intra-activity not only destabilizes the attribution of agency between human and non-human actors, it also disrupts the classical division between the “discursive” and the “material.” As Barad writes, “Discursive practices and material phenomena do not stand in a relationship of externality to each other; rather, the material and the discursive are mutually implicated in the dynamics of intra-activity....Neither discursive practices nor material phenomena are ontologically or epistemologically prior...[for] matter and meaning are mutually articulated.”<sup>104</sup> Given this “fact that material and discursive constraints are intertwined,” Barad argues that “analyses that attempt to determine individual effects of material or discursive factors” have only “limited validity.”<sup>105</sup> This understanding of matter and discourse as “mutually implicated” and “onto-epistemologically” equivalent, moreover, represents a very different approach than the existing anthropology of waste. In the next chapter, I will explore how the separation between these two ideas—that is, the centrality afforded to discourse by the structural-symbolic approach, and the assumed primacy of the material in discard studies—constitutes a major problem for both principal schools of waste anthropology.

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<sup>103</sup> Barad, 407.

<sup>104</sup> Barad, 152.

<sup>105</sup> Barad, 152. Importantly, “discursive” has a very precise, and potentially somewhat counterintuitive, meaning in Barad’s work. When Barad calls something discursive, they do not necessarily mean “cultural” or “human” or even “linguistic.” Instead, as they write, “matter is not a linguistic construction but a discursive production, in the posthumanist sense that discursive practices are themselves material (re)configurings of the world through which the determination of boundaries, properties, and meanings is differentially enacted. That is, discursive practices as boundary-making practices are fully implicated in the dynamics of intra-activity through which phenomena come to [produce] matter.” These concepts will be explored in more detail in the following chapter—but for now, it will suffice to note that I will use “discourse” and “discursive” in this Baradian sense throughout the rest of this chapter. Barad, 151.

### **CHAPTER 3: INTRA-ACTIVE STORIES**

This chapter has two main goals: to account for how objects and people intra-act on Milnor Street to reshape materiality and tell stories, and to begin to explore what a Baradian anthropology of waste—that is, that does *not* artificially separate material and discursive factors—might look like. When I first outlined this chapter, I planned to show this by examining the discursive, then turning my attention to the material, before finally showing how the two are connected. Such an approach follows traditional Western argumentative structures—and in so doing, deeply embeds a “representationalism” that is fundamentally incompatible with both a Baradian reading and the ways my interlocutors described their experiences. My interviews showed that the material and the discursive are not separable; at RAIR, as in Barad’s work, “relata do not pre-exist relations,” “knowing *is a part of* being,” and only through specific intra-actions do “‘subject’ and ‘object’” come to exist as discrete, definable entities.”<sup>106</sup> In place of a structure based on epistemological categories, this chapter will be organized into the exploration of two overarching *phenomena*. First, I will discuss materialization, examining how different modes of sensing the waste enact very real changes in the objects themselves; I will then turn my attention to storytelling, attending to how stories are intra-actively produced by both people and objects. To some extent, even this structure is a simplification, because materialization and storytelling are interconnected. However, Barad herself argues that the complementarity principle, an important Bohrian insight about the behavior of particles, implies that only so many properties of a phenomenon can simultaneously have defined values. every analytical “apparatus” shows—makes determinate—certain properties of a phenomenon, which necessarily implies leaving other properties indeterminate.<sup>107</sup> Separating materialization and storytelling allows us to talk about both with greater clarity—and, crucially, it does not suggest a

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<sup>106</sup> Barad, 140, 341. Chapters 4 and 5 will return to the agential cut in greater detail.

<sup>107</sup> I will explore this idea in more detail later in following sections.

fundamental difference in the *nature* of the phenomena, as would be implied by separating the material and the discursive.

### **Section 1: Materialization**

When I asked her what made RAIR special, 2019 resident Ang Li, like many other artists, stressed the unique role that Billy and Lucia played in her experience at the site. “Billy and Lucia were really kind of like guides,” she recounted, “both in terms of helping me navigate the logistics...but also sort of teaching me about where things were coming from, how different forms of value were being determined on site, about what kind of terminology was being used on site, and how different words meant very different things in my world versus in their world.” Such “terminology” and “determinations” made *material* differences, as Ang went on to describe: “one of the first questions I was interested in...at RAIR was “what’s recyclable?” But I learned quickly that’s a very redundant question: everything is recyclable, it’s just who’s willing to put in the time and effort to do it, and whether it’s profitable. ...We give value to materials through sorting practices, and...value is not really determined so much by physical...or aesthetic attributes of a particular piece of material, but by a kind of *process of discernment*, right?”<sup>108</sup> For his part, Billy explained his “role” in a “resident’s project” as, in part, “help[ing] artists look; becom[ing], sometimes, their eyes...I tell [residents] that my job is...understand[ing] what your eyes are being...attracted to...so I can keep in my field of vision things that are fulfilling [your] criteria.”<sup>109</sup>

This section will explore the “process of discernment” through which people at RAIR and Revolution Recovery “sense” waste through the “words” and “terminology” they use to categorize

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<sup>108</sup> Of course, this passage shows not just sensing, but also the generative processes of *pulling* waste and incorporating it into work. Chapters 4 and 5 will discuss these processes in greater detail. My Baradian reading, my semi-structured, interlocuter-driven interview methodology, and the non-standardized, quasi-informal protocols around the artists’ practices at the site all make it difficult to draw neat separations between processes.

<sup>109</sup> Several other artists used similar descriptions; Anamaya Farthing-Kohl, for instance, described “learn[ing] how to look” over the course of her residency; Maria Möller talked about the process of figuring out how to “look” for “compelling” objects.

it. Such “determinations” *transform* the waste in real ways, as my interlocutors made clear; when sensed from different points of view, objects from the waste stream really do become different things. In Baradian terms, therefore, the sensing practices that enact particular materializations of the waste are intra-active phenomena—and, in their performative onto-epistemology, such phenomena really do reshape materiality: “‘Things’ don’t preexist; they are agentially enacted and become determinately bounded and propertied within phenomena. Outside of particular agential [*i.e.*: agency-bearing] intra-actions, ‘words’ and ‘things’ are indeterminate. Matter is therefore not to be understood as a property of things but, like discursive practices, must be understood...in terms of intra-activity.”<sup>110</sup> Ways of sensing waste are therefore embodied practices that are simultaneously both discursive *and* material.

The pragmatics of the process of pulling waste on the tipping floor constrain every sense except for sight. During Revolution Recovery’s operating hours, the site is deafeningly loud. The metal treads of the heavy equipment clatter bone-shakingly across the concrete; building materials groan and crack as they are crushed by front-end loaders; large semi-trucks beep, honk, and gun their engines as they back rapidly through close quarters; loads of waste crash onto the tipping floor from trucks or bucket loader excavators. Engaging with the waste through taste would be...inadvisable, to put it mildly. As Nathalie Wuerth described, “it’s very special...how...*gross* [the waste stream] is, because...people come and just, like, pour things out, and there can be [rotten] food...[and] everything’s, like, kind of mixed; so...you’re there, and you might find something really nice, but you have to go through these...dodgy materialities.” Smells are always present, both the familiar rotting odors of household garbage and more unusual scents from industrial or C&D loads. When describing her pulling practice, Anamaya told me that how certain “smells,” like certain “objects,” would “touch parts of my imagination and...memory that I hadn’t accessed in so long.”

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<sup>110</sup> Barad, *Meeting the Universe Halfway*, 150.

But since everyone in the yard is at least theoretically required to always wear thick respirator masks to avoid inhaling toxic dust, smelling, too is limited.<sup>111</sup> For safety (not to mention hygiene), thick work gloves are essential when handling waste (*i.e.*, to avoid potential cuts), so direct tactile engagement, while certainly still present, is muffled. Most of my interlocutors' descriptions of engagement with waste, therefore, rely on visual metaphors—perhaps unsurprisingly, given their professional training in (primarily) visual artistic mediums. However, this chapter will use the word “sensing,” not “looking,” for two primary reasons. First, the word highlights the sensual, embodied nature of the engagements that both Barad and my interlocutors describe; second, framing our conversation in terms of “sensing” allows us to address broader processes of affective connectivity without unduly privileging the eye—or reinscribing the representationalist assumptions that Barad argues are implicit in visual metaphors.

#### Revolution Recovery and the Value(s) of Waste

Strikingly, the classification of waste is a central question for Revolution Recovery, not just RAIR artists. In the company's extensive media presence, its founders, Avi Golen and Jon Wybar, offered varying accounts of their motivations for founding the firm—each of which imply different perspectives on waste. Some profiles emphasize the duo's idealistic objectives: a 2010 article in an environmentally-oriented publication describes Revolution Recovery's two goals as “becom[ing] a zero waste enterprise” and “creat[ing] local jobs.”<sup>112</sup> In another interview, a company representative described the firm's “core goal” as “achieving solutions” that further the broader goal that “as a society, our waste management priority should be to reuse first and recycle second.”<sup>113</sup> A 2011 article in the business section of *The Philadelphia Inquirer*, however, paints a different picture:

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<sup>111</sup> Many smells were sufficiently strong to penetrate even the most snugly-fitted respirator, and compliance with this rule was not universal, but the broader point remains.

<sup>112</sup> Stabert, “Trash into Treasure: Revolution Recovery Offers Another Option for C&D Waste.”

<sup>113</sup> Brody and Habitat for Humanity of Bucks County, “Habitat Bucks Partners with Revolution Recovery.”

...the two entrepreneurs...are aiming for more than environmentally conscious customers. "Our goal," Golen said, "was never to be a green product," in the sense of charging a premium over traditional waste haulers or only attracting builders needing credits for environmental and energy certification...[and a] customer said Revolution Recovery had met the objective of not being pegged as a "green" service provider.<sup>114</sup>

The now-defunct *Philadelphia City Paper* didn't read too heavily into either motivation, portraying the site as an "alchemist's workshop" where Golen and Wybar "conjured gold from the dross of modern life"; "in their hands," the article noted, "recycling becomes not just a noble goal but a route to profitability...[t]he more they can extract from the waste stream, the more they can sell."<sup>115</sup> For 2016 resident James Maurelle, the site is simultaneously *of* the commercial world and a disruption to its logics: he describes the *feeling* at Revolution Recovery as "yeah, commerce and property and money and things like that—but it's still...a place...that has a vibe...that's different than the norm, or the status quo, of what a business is...and that's where the residency and the artists come in."

In all of these stories, however, the site's central business model remains the same: as Avi Golen puts it, "when we look in a Dumpster, we see commodities where other people see waste."<sup>116</sup> It is important to remember that the site charges by the ton to dump waste at its facility, sorts the waste that comes in, sells what it can salvage, and pays to landfill the remainder; as such, the site's profitability depends on extracting as much volume and value from the waste stream as possible. In context, it's clear that Golen is using the word "commodity" in the liberal economic sense: a standardized good (*i.e.* one considered equivalent regardless of who produced it), usually a "raw materia[l,] such as crude oil, copper, or soybeans," that, as the French economist Florian Ielpo notes, is predominantly traded in very large quantities on highly financialized international markets.<sup>117</sup> A side effect of this globalized, often speculative financialization is high volatility, to

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<sup>114</sup> Brubaker, "Construction-Waste Recycling Company Is More than Just Green."

<sup>115</sup> Brady, "The Waste Notes: Revolution Recovery."

<sup>116</sup> Brady.

<sup>117</sup> Ielpo, "The Economics of Commodities and Commodity Markets"; McGinnis, "Research Guides"; T., "What Makes Something a Commodity?"



which Revolution Recovery remains highly vulnerable; as a result, the materials the company is able to sell change dramatically with shifting prices, making operations precarious.<sup>118</sup>

When artists examine the pile, however, they see different kinds of value than those measured on commodity markets or in the congealment of labor power. Almost every artist I spoke to described seeing certain types of “value,” “resonance,” “richness,” or the like in certain pieces of waste, though their criteria varied widely. 2017 resident Martha McDonald, for instance, said “my measurement for what was important...was really based on...my emotional response to things; ...the value I placed on it...was about sentimentality, and emotion, and memory rather than what was actually valuable.” For Anamaya, these monetary and non-monetary forms of value were in tension:

G: Did you feel like there was...[a] change in how you felt about the objects, or about the process of picking, over your time at RAIR?

A: I think that's something that started to happen...when I found gold or something. Like, I started to know how to find gold, or...money.

G: And by gold you mean—actual gold?

A: ...not, like, gold bars. But this necklace [gestures at gold necklace she is wearing] I found in the trash, or my earrings—I found a lot of...things that have, like, *intrinsic* value, and ...towards the end, I had kind of a crisis,...because we had weavings, but I was still pulling stuff, just...[pauses] because it's like Christmas, but better!...I felt *greedy*, and I was like, “Oh, maybe I'll find more stuff!” ...But I also think it's interesting, because...there's a relationship between value, right? There's intrinsic value, and then there's also the—sentimental value, or...*value* that happens over accumulation, or over use, or over context.

G: So by intrinsic value you mean, like, monetary value, like exchange val—

A: Yeah, Yeah...But then...just thinking about something else that's in the weave:...a little puzzle piece of The Little Mermaid's, like, uterus? Like—not uterus, the place where her uterus is, like, her abdomen...[and] especially without the puzzle, that has no context. But

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<sup>118</sup> “In the Spotlight”; Ielpo, “The Economics of Commodities and Commodity Markets.” Until 2014, for instance, Revolution Recovery recycled used carpet tile, but falling oil prices rendered manufacturing virgin nylon cheaper than buying recycled nylon pellets, and Revolution Recovery resorted to selling acceptable quality carpet tile retail and scrapping the rest. Similarly, a paper mill in Reading that bought most of Revolution Recovery’s wood pellets, one of the company’s largest products, for use as fuel cancelled their contract entirely following the boom in fracked natural gas from the nearby Marcellus Shale. Fluctuations in the exchange rate between the US dollar and the Indian rupee, Turkish lira, and Chinese yuan in 2014 and new Chinese tariffs on scrap material imports imposed in 2017 and 2018 also upended the types of waste collected by the employees at Milnor Street. As a result of this precarity, the company has pursued a strategy of diversifying the materials it sells in order to insulate itself as much as possible from market fluctuations: in 2019, Revolution Recovery had standing contracts to sell dozens of types of materials to over forty different local companies. Szczepanski, “Gookin Helps Grow a Business While Fostering a Recycling Artist-In-Residency Program”; “In the Spotlight”; Harris, “Company Recycles Old Mack Trucks Plant in Allentown, Using It to Divert Construction Debris from Landfills”; Altrichter, “Revolution Recovery”; Vespa, “Project Profile”; “Filthy Rich.”

it's just like: that has such an amazing story around it, right?...Not always the most valuable thing is *valuable*, does that make sense?<sup>119</sup>

In short, for Anamaya, time at the site translated into skilled eyes; she “started to know how to find” items of “intrinsic” (*i.e.*, monetary) “value.” Along with necklaces and earrings, however, this brought disconcerting moral dilemmas—as the objects that drew her attention began to represent opposing systems of formulating value, these different ways of looking increasingly felt in tension.

Above all, Anamaya’s account shows how different ways of looking—different “processes of discernment,” to use Ang’s phrase—intra-acted *differently* with the pile to produce valuable waste. The “value that happens over accumulation” that Anamaya sees—or even the individual high-priced items she “began to know how to find”—differ greatly from the waste’s environmental/job-creating benefits touted in Revolution Recovery’s branding or the “commodity” values assigned by the company’s practices. James Maurelle, an artist who experienced RAIR as a “re-introduc[ti]on to” a “childhood space” of “gr[owing] up on building sites” apprenticed to his plumber grandfather and architect father, saw a very different kind of perspective on the materials at Revolution Recovery “in a setting like that, you get a look at...not just the materials...but how everyone else is reacting to the materials...and to [Revolution Recovery’s workers], it’s like, you know, this is a job, and...pardon the language, but I’m going to move this s[hit] to that part over there and move that s[hit] over here.”<sup>120</sup> Frames of value, therefore, produce different types of matter—and as such, the practices of looking for them are, in a Baradian reading, productive phenomena of materialization. As Barad summarizes, “matter is substance in its intra-active becoming—not a thing but a *doing*, a congealing of agency... ‘Matter’ does not refer to an inherent, fixed property of abstract, independently existing

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<sup>119</sup> Strikingly, this also demonstrates how the practice of pulling objects seems to shape Anamaya’s processes of both sensing and making, and how intra-acting with the objects seem to reshape her own subjectivity—that is, how the systems of value she observes in the objects in turn reflect and refigure *her values* more broadly. Later chapters will discuss this further.

<sup>120</sup> I conducted my Zoom interview with James while his six-year-old child, who was on the final day of winter break, played in the background; accordingly, he said “s” instead of “shit,” but made clear in context what word he truncated.

objects; rather, it refers to phenomena in their ongoing materialization.”<sup>121</sup> In short, the “matter” that other anthropologies of waste see as a discrete entity onto which culture is projected does not meaningfully exist in a consistently bounded sense.

### Objects, Material, and Complementarity

Reading this section up to this point, a Douglasian structural-symbolist (or a Marxist, or even just a critical reader) might object on the basis that “value” is a *cultural* product. Rather than representing a reconfiguring of the materiality of the pieces of waste themselves, they might argue that the assignment of value is a discursive process that instead recapitulates the organization of society. Given the examples presented thus far, such a critique would be understandable.

Discussions of value, because of their common vocabulary, are helpful in showing the range of discourses contributing to the phenomena that materialize waste differently (and, importantly, showing Revolution Recovery’s engagement in materialization)—but they’re not the most productive way to show that these phenomena are more-than-cultural. Even in the context of the example of discussion of value, though, a Douglasian and a Marxist critique would fall short, because both rely on what Barad calls representationalism: the idea “that representations and the objects (subjects, events, or states of affairs) they purport to represent are independent of one another.”<sup>122</sup> Both a discourse-centric Douglasian and a Marxist materialism are predicated on this “metaphysical presupposition,” which means neither adequately addresses the *performativity* of the matter that makes up our world. As Barad describes, “material conditions matter”: not “because they ‘support’ particular discourses that are the actual generative factors in the formation of bodies, but because *matter comes to matter* through the iterative intra-activity of the world in its becoming.”<sup>123</sup> To better understand the mutual implication—that is, the intra-activity—of the material and the

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<sup>121</sup> Barad, *Meeting the Universe Halfway*, 151.

<sup>122</sup> Barad, 28.

<sup>123</sup> Barad, 46.

discursive in the process of materialization, the chapter will now turn its attention to how the artists distinguish “objects” and “material.”

Almost all the artists used the terms “material” and “objects” to refer to things they found in the waste. One helpful explication of the difference between the two was offered by Lewis Colburn, a sculptor and woodworker whose 2018 residency coincided with the US political conversation about the removal of Confederate monuments. Lewis’ RAIR project, *Disposable Monuments*, involved building a 30+ foot tall plywood obelisk on the tipping floor that he pulled over with a rope; the primary product was a set of photographs of the tipping process, which he created in an effort to “play with the for[m]” of that “painful and problematic signific[r].” When I asked him to tell me about “how you chose objects from the yard,” Lewis told me that

the things I was looking for...at RAIR were much more like raw material in the sense that...I [was] looking for things that I could manipulate with the woodworking tools that I had available to me...because that's a language I really love, and it does lend itself to this building and constructing language...I think a lot of [other artists], when they're seeing something come through, are looking for whole items that are significant in and of themselves. Now, I certainly am not immune to that seduction—I have all kinds of ridiculous little trinket stuff that came from [RAIR], you know, like shoe lasts, and little brass mice....So I'm certainly looking for interesting objects, but I'm also like, you know, what are the raw materials I can get here?<sup>124</sup>

To Lewis, in other words, the pursuit of “interesting objects” and “raw material” in the pile were different processes. For the purposes of his work, he looked



Figure 1: One of the photos from *Disposable Monuments*, in which Lewis (out of frame on the right) pulls over the obelisk in front of the wood pile at the back of the tipping floor. An example of a project whose artist looked primarily for *materials*.

<sup>124</sup> Strikingly, Lewis is not the only artist to see objects as “seducers”; Narendra Haynes also describes certain configurations of objects as engaging in “a certain type of seduction.” Another interesting role into which objects materialize in artists’ practices of looking at waste!

for material: that is, for waste based on its properties as an *aggregate* (in this case, the physical properties of how he could “manipulate” different types of plywood in the “language” of woodworking). By contrast, for his personal collecting, he was drawn to objects: what he referred to elsewhere as “specific meaningful items,” or one-off items that stood out based on their *individual* properties.

This typology, following Lewis’s explanation, will be a helpful shorthand throughout the rest of the thesis; broadly, about half of the artists (Anamaya, Martha, Maria, Olivia, Nathalie, and 2016 resident Maria Möller) generally looked more for objects from the trash for their work, while the remainder (Ang, 2021 resident Eugenio Salas, Lewis, Shelly, and Narendra and, to some extent, James) tended to look more for *material*. This division is, of course, to some extent artificial; unsurprisingly, given the diversity of their approaches/projects, each artist that used the terms did so in slightly different ways—so perhaps it would be more precise to describe a spectrum rather than a binary typology. Nowhere is this clearer than in

Ang’s work. On the one hand, she focused on aggregates to the point where she “came up with systems and rules” for where to place individual pieces of EPS foam in order to prevent her bales from becoming “overly composed”; on the other, she noted that despite how “EPS foam is always something that’s wrapping the object...so we don’t think about it so much as an object,” in her project, by contrast, she *was* “treating it as an object” in a sculptural sense.

But the implications of this point are broader than just a useful shorthand. As described by Lewis and Ang, the distinction between objects and materials is what Barad calls a “boundary

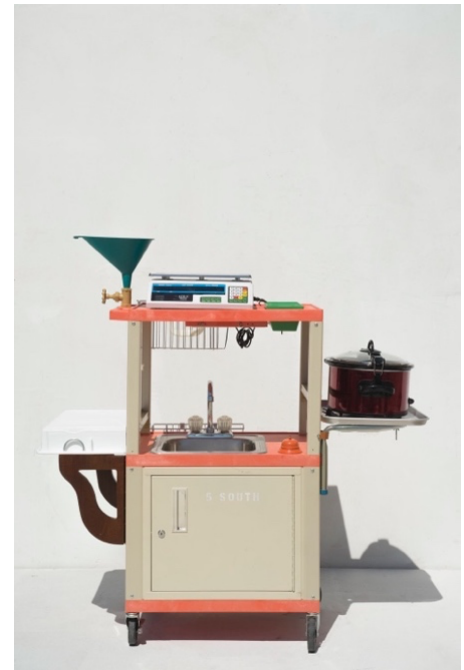


Figure 2: Shelley’s documentation of her bottle soap cart: an example of an *object* focused project.

drawing phenomenon.” The same piece of waste from the pile could be an object or could be material, depending on how it appears and feels to the artists—or, in Baradian terms, depending on the phenomena through which it materializes. It is in this *boundary*-drawing sense that Barad argues their previously-mentioned point about how “things don’t preexist”; only through intra-activity do discrete entities come to exist in the world—does “matter comes to matter.” The object’s materiality, moreover, participates in this process: as Barad puts it, “matter is an active ‘agent’ in its own materialization.”<sup>125</sup> Understanding why this is the case will require following Barad on one of their detours into quantum mechanics.

As noted in the literature review, Barad’s metaphysics is, substantially, an explication of Niels Bohr’s work. One key Bohrian concept on which they gloss is his indeterminacy principle, which, in the 1970s, gained experimental support over the competing explanation of entanglement, the better-known Heisenberg uncertainty principle.<sup>126</sup> At its most basic, Bohr’s idea describes how “values of complementary variables (such as position and momentum) are not simultaneously determinate [in the mathematical sense of “defined”].” The particle/wave duality observed in the famous double slit experiment, therefore, is not “an issue...of unknowability,” as Heisenberg argued, but “rather...a question of what can be said to simultaneously exist.”<sup>127</sup> This implies that experimental arrangements are implicated in that which they observe (as Barad puts it, “the inseparability of objects and agencies of observation is the basis for complementarity”)—but not, Barad argues, because they represent a “cognizing human subject,” as Bohr believed, but rather because of the intra-actions in

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<sup>125</sup> Barad, *Meeting the Universe Halfway*, 151.

<sup>126</sup> Barad, 116. Especially important is Wootter’s and Zurek’s 1979 “which-path” double slit experiment, which cleverly titrated how much was known about a photon’s movement, producing partial-particle/-wave behaviors. These showed, to grossly oversimplify, that “there is a continuous tradeoff between particle and wave behaviors; the more a photon behaves like one, the less it behaves like the other” (303). For a detailed description of these experiments and their consequences for our understanding of the universe, see Barad, 294–310.

<sup>127</sup> Barad, *Meeting the Universe Halfway*, 118.

the *phenomenon of observation itself* cause some properties to become determinate.<sup>128</sup> In so many words, the Baradian notion of the *phenomenon* represents a generalization of this complementarity principle from subatomic particles to all matter.<sup>129</sup>

In an important sense, therefore, what's at stake in viewing the waste as objects or material is a question of complementarity: of which properties of an object are materialized, and which are constitutively left undefined by that materialization. This is *not*, as a structural-symbolic or a discard studies approach would have it, just a process (however mediated) whereby a human subject assigns discursive symbols; such a point of view ignores the participation of the materiality of the objects in the phenomenon, flattening out the complexity of the material world into a homogenous field of (Cartesian) *objects*. But this (performative) sense in which the waste is agentive does not imply that the waste is *alive*, in the sense that it “has agency,” or that it intra-acts in the same manner as humans. This activity, in short, is not “an instance of the vital materiality that...constitute[s] the trash” in Jane Bennett’s description of the Meadowlands dumps in the hinterlands of New York City—the *vibrant matter* that Hornborg critiques as “fetishistic”; instead, it reflects the waste’s intra-action alongside humans.<sup>130</sup>

### The Many Materializations of Waste

The same complementarity-based approach, in fact, lets us understand a wide array of other ways that waste materializes at RAIR. A few examples: waste “material” could become the very “ground” that nourished new life (as in Narendra’s project), or, for Ang, a concrete “representation of” the abstract “process” of how “things moved through the waste stream.” “Even...tiny things,

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<sup>128</sup> Barad, 308, 284. This point is also crucial to Barad’s notion of the apparatus, which Chapter 4 will return to in some detail.

<sup>129</sup> As Barad points out—and as some of their critics seem not to fully appreciate—this is not a novel or even controversial statement from a physics perspective; the popular belief that there is a separation between the quantum laws that govern small things and the Newtonian laws governing big things is a misconception (importantly, as they put it, “quantum mechanics is thought to be the correct theory of nature that applies at all scales”). Barad, 85.

<sup>130</sup> Hornborg, “Objects Don’t Have Desires”; Bennett, *Vibrant Matter*, 10.

like a nail,” Anamaya recounted, “had this possibility to act as portals.” A comprehensive account of all the ways artists told me that waste materialized at RAIR could fill the length of this thesis—so this section is necessarily incomplete. To give a sense of this immense richness and diversity, and to better account for the process of materialization, I will offer a taste of these many types of stories.

Some artists described waste as *active*, as previous quotes have shown; several others made this activity explicit in ways that mirrored materialist perspectives in theory. Maria’s project, *One Last Time*, consisted of a “ritual” documented through photographs, in which people who’d “experienced something” that brought them close to “mortality” had the opportunity to “give” an “object” from site “one last time of—of life, of purpose” before casting it into the pile for good. When describing the ritual, she told me that “there were 3 participants in my mind: there was me, there was the participant, and there was the object that was participating.” This wasn’t, however, an unqualified, Bennett-style vitalism. In response to a question about how she chose the objects, Maria told me that they “had to be something that could take action, because the whole idea was that it was going to be *anthropomorphized and animated* so it could do something [emphasis added].” For Anamaya, this vitality was less mediated: in the waste, she saw,

A: all these things that aren't supposed to survive but are so resistant, you know? Who aren't expected—who are like set up to fail in a way.

G: What do you mean by survive? Like, what does survival mean from the point of view of an object?

A: Well, I mean, I think being *born* in the point of view of an object is like, without consent, right? And then also being *used*: then it's like, maybe slowly starts to have consent, and it starts to have a relationship. But then being tossed, or being considered as not useful anymore, to me personally, it's like: this must be *devastating* for the thing itself, you know?... I found all of these crystal cups, and [I was] just so astonished that they were able to make it!... To transcend these places, or, like, to pass through these...as trash, to transcend this huge dump! Like, the force of being dumped out of one of those trucks, or being shat out, right?

For Anamaya, therefore, the activity of the objects was much more analogous to human activity;

objects not only “participated” in “anthropomorphized” ways, they *themselves* had autonomous, emotive relationships with people. Their lives were so intrinsically meaningful that their stories, their survival, could even be “transcend[ent].”



The juxtaposition of these two accounts shows the utility of a Baradian framework in analyzing people's affective relationships with objects. Even setting aside the ethical problems pointed out by Hornborg, an unqualified vitalism would dismiss Maria's understanding of her own "anthropomorphizing" agency in choosing objects as ignoring the vibrancy of her object participants.<sup>131</sup> Other non-performative frameworks, by contrast—that is, representationalist approaches that hold discourse as ontologically primary—would reject Maria's account out of hand as purely fetishistic, thereby subordinating the material to her "anthropomorphizing" discourse and disregarding the real "participat[ion]" that Maria herself attributes to the objects. A Baradian approach, by contrast, circumvents the thorny (and, I'd argue, ultimately *unanswerable*) ontological debates over whose perspective on objects is "right" or "wrong" that inexorably arise from a representationalist reading of these situations. Rather, in a performative framework, the issue at hand is accounting for the productive phenomenon of each intra-action—a case-by-case relationality that lets us examine the shifting onto-epistemology of each phenomenon in its own terms. Crucially, though, a performative view does not preclude a critical perspective. Barad posits that "objectivity" exists, and "means being accountable to marks on bodies," an idea that I'll explore (and argue needs extending) at the end of this thesis. However, even the orthodox Baradian concept would, for instance, allow us to argue that Anamaya's attribution of "consent" to objects from the waste stream was overly speculative, or insufficiently grounded in materiality, to be truly "accountable" to the "marks on" the "bodies" with which she intra-acts.<sup>132</sup> Performativity, in short, does not imply unbounded relativism. To mangle an already tortured cliché, the point is not that Barad compels us to take peoples' accounts literally; rather, their framework lets us take the artists, the objects, and

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<sup>131</sup> Similarly, a Marxist materialism—another form of object-oriented representationalism—would dismiss this entire conversation as fetishism of the highest order.

<sup>132</sup> Barad, *Meeting the Universe Halfway*, 178.

their intra-actions *seriously* when they tell us that the material and the discursive are mutually co-implicated in the production of meaning.

When looking through the trash, Anamaya described how she “personally tend[s] to see people in things.” She wasn’t alone—by my count, at least seven artists described objects as taking on some sort of human roles in one context or another. Another straightforward example comes in the form of a telling parapraxis: after Shelley told me about finding letters and photos from a “person who’d had a sad life,” she noted that “the stuff I’m talking about with this woman, I mean, my—she—it wouldn’t have been in my art anyway,” because her project didn’t use photos or letters. Anamaya, though, meant it in a more relational context; as she elaborated on her previously-quoted statement, she described seeing gifts for particular friends in the pile: “I’ll find something, and...even if it’s stupid, I’ll be like...‘I thought you would like it.’” Billy, too, outlined how his relationships with other people shape the things he notices in the pile: he always pulls American flags, because

a lot of the dudes who drive the trucks...are veterans. And watching what an object like that—of course it’s super charged—but watching what a veteran does to a real American flag, that’s on the ground on the tipping floor is absolutely one of the most shocking displays of national—you know, pride...they jumped out and ran across the yard, screaming and yelling for trucks to get out of the way and to not run it over, like it was a fall—it’s, in its own way, like it was **like a fallen soldier**...And they grab it, shake it off, fold it up in the correct way to fold the flag, and put it in their truck, and when asked about it [are] absolutely so annoyed and angry at the fact that an American flag could be left to be disgraced by dropping out of—and, I mean, it’s perfectly plausible! Somebody dies; it’s coming out of the back of the—it’s gonna happen! **But I think, that emotional reaction to something symbolic that represents so much to this one person is a—to me is definitive of, like, what the potential for a lot of these things can be, pertaining to an individual’s history, and their experience in the world as a human, and whatever it was that they, you know, went through, and how they respond to things...**

Billy’s story starkly demonstrates the intra-activity of the process of materialization. The differing “experiences,” “histories,” and “responses”—in a word, the subjectivities—of human intra-actants contribute to shaping materiality, just as the materiality of the objects can exert a pull on the artists, compelling them to tell certain stories. This process is so complex, moreover, that it reflects the complexity of human relationships. Personally, when Billy “watches” the flags being dumped, he

sees problematically “charged,” “symbolic” objects, not something “like a fallen soldier”—but his relationships with the “dudes who drive the trucks” change his intra-actions, so he has “started a flag collection.” (We will return to the complex interconnections between human-object-human relationships in Chapter 5.) Note also, though, that in speculating about the history of the object, Billy begins telling a bit of a story. In the next section, we will examine many more waste stories.

## Section 2: Stories

When interviewing artists from RAIR, I noticed an intriguing pattern. I would ask artists abstract questions about any number of topics—their work, their time at the site, the feelings they had there—and they would frequently reply by telling me stories about objects from the waste stream. Consider, for instance, what 2016 resident Martha McDonald said when I asked her to tell me about her project:

So I spent 6 months as a resident...going there at least four days a week and digging through all of the personal effects—the materials that were being dropped off—when there were house cleanouts. Usually—often—it seemed like most of the time it was like an old person had died and nobody wanted their stuff. Or maybe they were going to a care home. And then sometimes it was people who were...getting evicted. A couple times it was clearly, like, a girlfriend had left, and the boyfriend brought all her shit and dropped it off. Because...when I first was trying to decide what my project might be, I was most fixated on these materials that really carried the memory, and...the physical impression, like in the shoes and the clothing...of these people...who...for some reason or another, were no longer connected to these belongings. So that was of great interest to me: I wanted to memorialize these folks that had died, and to give their belongings,... one last chance to shine, before [pauses]—because all this stuff goes straight to the landfill. It can't be recycled.

Later in this exchange, Martha did go on to describe some of the things that she did with the objects. Strikingly, however, when asked to summarize her project, Martha began by telling me not just about the “materials that were being dropped off,” but about the stories that she saw those objects as telling: stories of “evic[tions]” and “de[aths],” of unwanted “old people” shipped to “care homes” and “boyfriends” dumped by “girlfriends.”<sup>133</sup>

Every single artist narrated at least one such waste story in response to a broader question. Not all were like Martha's; though she was not alone in seeing objects as telling stories about their previous owners, artists also told other types of stories. What was consistent, though, was the involvement of the objects themselves. In this section, I will offer an agential realist account of waste stories—one that explores how telling stories about waste is an *intra-active phenomenon* in which

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<sup>133</sup> Also striking are the obvious resonances between Martha's goal of “memorializ[ing] the folks that had died” by “giving their belongings...one last chance to shine” and Maria's piece *One Last Time*—and the shared view of the site as a space of profound loss, and on working with the objects as a mode of working through those deaths and losses, that those commonalities reflect. Chapter 4 will return to this theme.

both artists and material meaningfully participate. The waste that the artists told me about was not a flat, ontological object that sat in the awaiting its marking by human discourse. Rather, the discursive practice of telling stories about waste is inescapably linked to the waste's materiality, which emerges through some stories, disrupts others that people impose on it—and even, in the accounts of some artists, tells its own stories with no human intervention at all.

### Storytelling

First, this section will explore a few more examples of the practice that opened the section—the stories that artists told about waste in such great volume. As far as RAIR artists go, Martha and Ang could not be more different. Martha's background is in operatic singing, dance, and textile artisanship; Ang is a professor of architecture with expertise in the connections between circular economy and the built environment. Martha's project was an interactive musical performance called *Songs of Memory and Forgetting* that sought to “memorialize” the previous owners of objects from the pile; Ang focused her 2019 residency entirely on the properties of expanded polystyrene foam (EPS, which is more commonly known as Styrofoam). When I asked Ang “why EPS,” she told me:

[w]hen I started the project at RAIR, I had no idea what material I was going to be focusing on. I think just looking—you know, a lot of the first two weeks I spent on site was just observational. So I would go into the yard every day with Billy and he would just tell me stories about everything that was coming in. . . . [Y]ou can kind of start to see patterns emerge, and the thing I was interested in was the landfill pile and the recyclables pile. They kept fluctuating in size, but also very specific things went into each pile. I think the time that I was there was right after Philly had implemented a ban on single use EPS foam food containers, so there [were] a lot of new—brand new—large shipments of new food containers that were showing up that were being thrown away...[so] the site was registering some kind of policy change that was happening somewhere else, and we s[aw that] played out on the piles...

Ang describes how, in her time at the site, “observation”—looking at the waste—was intimately connected to “tell[ing] stories” and questions of interpretation. Barad writes that “meaning is made possible through specific material practices”; *looking itself* is a material practice here, in the sense that it engages the materiality of both body and site—and it profoundly shapes the artists’

interpretations.<sup>134</sup> When Ang describes how shifting “patterns” in the “fluctuat[ing] sizes” of the different “piles” can “register...policy changes that happen somewhere else,” she tells a waste story—and though her story is much more focused on material than Martha’s object-driven account, it is no less informed by the materiality of the waste stream. Such contextual interpretations could also ground stories about specific people: 2022 resident Anamaya Farthing-Kohl described how “the more things...[I] found all together, the more I started to understand—the more I was able to imagine the story around each thing, and the owner...and then, really, the story around each thing—the things themselves—would start to create this owner.”<sup>135</sup>

In contrast to the generality of Ang, Martha, and Anamaya’s accounts, other artists’ stories were intimately connected to the specifics of individual objects. In response to a question about “what it felt like to work in the RAIR yard,” 2018 resident Lewis Colburn, told me about an object that he still “think[s] about a lot”: “the base of...a center column table” that “had clearly been in someone's house that had had a cat,” which had “scratched” it “to such a degree that...this table leg was entirely a different shape than it might have been originally. And so...that was this object, where the *object itself* is really the record of a history and a process.” Like Lewis, several other artists saw specific objects as, in Billy’s words, self-authorizing “archives of practice.” For Maria Möller, for instance, the activity she saw in objects was an accretion of “functionality” over the object’s “past life,” which she took pains to emphasize was “not” a function of their past “owners”: that is, “while the object might have in its previous life enjoyed [pauses] being in Grandma’s kitchen and baking cakes...I wasn’t really thinking about Grandma.” The histories of such objects, in short, *emerged from their materiality* when artists engaged with them. Some stories combined this history-seeking mode

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<sup>134</sup> Barad, 148.

<sup>135</sup> The end of Chapter 4 will return to what’s at stake in how artists see objects as “creating” people.

with Ang and Anamaya's style of contextual analysis, like this striking snippet of my interview with Nathalie Wuerth, a 2022 resident who collaborated with Anamaya on a shared weaving project:

G: The ways that people have used objects in the past—did that shape the meaning that the objects had for you, or the way that you thought about the meaning of the objects in the context of this work?

N: Hmm! Well, I think that I have some stories...we had this big sofa that we even tried to get into our...that took [up] the whole space...[Nathalie laughs] it was enormous! And that came together with this kind of medic[ine] cabinet...[and] this beautiful old sofa, like Rococo looking, and...2 glasses, that were like kind of tainted brown, but beautiful, kind of sunset, you know, 70s-/80s-kind of designed item. And then there [were] also these brochures about depression, and I felt very strongly for these things. I felt—I made up a story! Like, “this is someone who isolated herself.” And you know, for one reason or another—you know, I was more into like these kind of, like—these sad stories, in a way, you know, where I could feel more severance in some way—where I could what I could feel like, “Why?!” Or even these baby shoes: you're wondering, like, “why are they here?”

We again see a common motif: when asked a broad question about how she interpreted “meaning,” Nathalie immediately started telling “stories” about very specific objects—objects whose materiality led her to “fe[el] very strongly” and to “ma[ke] up stories.” Tellingly, the “sad[ness],” “isolation,” loss, and “severance” of Nathalie’s “story” clearly resonates with the story from Martha at the beginning of the section; her response to the objects, moreover, equally clearly echoes how both Martha and Anamaya “make up an owner.” I will set these content questions aside for now, however, and return to them in Chapter 4; at the moment, though, I am primarily interested in the *phenomenon of the story itself*.

More importantly, though, Nathalie’s example shows, perhaps more clearly than anything else I have presented thus far, how the process of storytelling is inseparable from the materiality of the objects themselves. As Nathalie described when accounting for the “stories” she and Anamaya built into their weavings by including certain objects: “I do believe in this physicality...it participates in your choice, you know? It’s not an idea; [the objects] do not only represent ideas...there is a physicality...that is like a magnet...it’s a gift, in a way, when you work with stuff, because objects have their own mystery.” The “physicality” of the objects that Nathalie found—not just the concepts signified by the pamphlets, but also the specific “70s-/80s-,” “tainted brown” material of

the glasses—“participat[e]” in the story that Nathalie tells about them. This is not, at least for Nathalie, the objects themselves telling a story on their own, nor is it pure fetishism: as she indicates with the qualifier “makes up,” Nathalie doesn’t see the objects as providing her with unmediated truth. But neither is her sense of their vitality a case of misplaced “object relations,” to borrow the Freudian term: a reading that viewed this material as the mirror of culture cannot account for the “mystery” of the objects that Nathalie tells us “participate[d]” in her choice. This, then, is what Barad means by “intra-action,” their term that “signifies the mutual constitution of entangled agencies.”<sup>136</sup> Nathalie is not the unitary actor who *has* agency in the story; she enacts agency in participating in its telling, but so, in a real way, do the objects from the pile.<sup>137</sup>

### Disrupting the Narrative

Clearly, objects from the pile can be more than just the subjects of stories; here, I will explore this latter phenomenon in greater depth. First, however, I will examine how materiality can *disrupt* stories. As part of her project *Balancing Act*, Ang collected EPS from the site and compiled it into imitations of Revolution Recovery’s ubiquitous bales. She explained that the project highlighted how,

[i]n architecture, foam is used a lot for insulation...[or] for large landscaping projects—it’s used as a kind of placeholder for mass, because it’s large volume and low weight, so it doesn’t take a lot of labor to lift it up and build large things. So those are the reasons...we love it and why it’s valued. Whereas in the waste processing world, it’s seen as—since weight is such an important factor in how they calculated every kind of cost at RAIR, it was worthless...so there’s this kind of inversion, where a material that’s really encouraged...an expanded growth mentality in my industry is something that really comes back to bite you, and has a very different form of accumulation, in a place like RAIR. So I think that’s—I mean, I would never have looked at it that way, unless I’d visited the site.

Ang, in short, came into her time at RAIR with a story about EPS as “a placeholder for mass” that encourages an “expanded growth mentality.” Once she arrived at the site, though, she saw how the *material itself* “comes back to bite you”; that is, the foam’s physical properties—in fact, the very same

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<sup>136</sup> Barad, *Meeting the Universe Halfway*, 33.

<sup>137</sup> Importantly, this does not imply that they are necessarily *equal* participants.



low mass-to-volume ratio underlying its architectural usage—disrupted her previous understanding of what it meant. Not only does this represent a new form of human-object intra-action; it also shows an important point about context. One of the strengths of a Baradian reading is the flexibility afforded by its focus on phenomena; the same material that participates in one story in an architectural context can disrupt that story when circumstances change.

Most strikingly of all, several artists reported that the objects *themselves* acted as “storytellers.”

Anamaya offered the most explicit account of this behavior:

A: ...[you find these unbelievably delicate, unbelievably personal...precious things...I still have this cup, it's so funny. Like, it's just still this, *so precious* vessel—but it's a vessel for storytellers, it's a vessel for its own materiality. It's a pink crystal cup; like, a vessel from...the 1940s, all that stuff. But then it's also, like: how many stories were told around that cup, or with that cup, or when—when that cup was in someone's hand? So I guess I think that the *storyteller* is a *thing*. I don't know if I'm really a storyteller. I think I'm just more of like a friend, or like a vessel myself.

G: What's the relationship between telling stories around an object, and those stories becoming part of the object itself?

A: ...I think it really depends on the movement of the cup, because I think that there is, like, an innate materiality of the cup, that tells its own story, its process. That's a story that...kind of like geology...a cup geologist c[ould] tell—somebody who can really *undo* the material part. But I also think then a cup becomes appropriated within an organism, which is a community...and I guess I think that for me the cup is...a vessel for stories, but it's also a storyteller in a way, as to how the cup gets absorbed, and then also, when does it push back...

Anamaya reduces her own role as the artist to serving as a “friend” or a “vessel” for the “stories” “told” by the cup itself as a “thing,” in its simultaneous roles as “storyteller” of “its own process,” “vessel for its own materiality,” and “vessel for storytellers” within a “community.” These stories, moreover, are created through a complex interplay between objects, people, and time; the sense in which objects have activity in Anamaya’s account is not vitalist, but deeply intra-active. Later in our conversation, when describing workshops where she and Nathalie ask people to select objects from their personal “cosmology of things,” Anamaya elaborated on the interplay between people and objects in shaping stories: “every time we’d ask people to come in, we’d be like ‘pick one thing that you’re attracted to...that you feel like you’d be telling a story [with], that tells a story about your life.’ And people would tell the most amazing stories, you know, and puppets are—you know, are real

storytellers too, right? And things are just puppets.” In short, in Anamaya’s account, subject/object distinctions are flexible: as Barad writes, “subjects (like objects) are differentially constituted through specific intra-actions,” since “knowing is a material practice...not a play of ideas within the mind of a Cartesian subject that stands outside the physical world.”<sup>138</sup> In short, Anamaya’s example of the “puppets” makes clear how “amazing stories” are told only in collaboration between objects and people. Taking this seriously, however, represents a deep challenge to a Western epistemology that, since Plato, has relied on a “representationalism...that holds nature at bay...generating and regenerating the philosophical problem of the possibility of human knowledge out of this metaphysical quarantining of the object world.”<sup>139</sup> An agential realist reading, by contrast, allows “consideration” of the “material” without “reinscribing traditional empiricist assumptions concerning the transparent or immediate givenness of the world” or “simply call[ing] for the recognition of our mediated access to the world.”<sup>140</sup>

Anamaya may articulate the idea that the objects tell stories more directly than any other artist, but she’s certainly not the only one to express some version of that view. Billy spoke of how, in his own practice, exploring objects’ meaning meant taking the *time* to

giv[e] that object the opportunity to unveil itself, and its multitude of history, or story or narrative. [But] I think it's just as beautiful when somebody can inscribe meaning that is not necessarily historically accurate, but points to things that, in a probable way, could absolutely correlate with real events or real—like, a realistic portrait of the history of an object. So...I think that it's all there, it's in the object. It's a matter of how you allow that to...come out, I suppose.”

For Billy, even invented stories are, in a real way, “in the object,” so long as they maintain a reasonable degree of plausibility. The object *itself* possesses a “multitude of history,” “story,” and “narrative”—and through its collaborations with a human artist, those stories are communicated to

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<sup>138</sup> Barad, *Meeting the Universe Halfway*, 342.

<sup>139</sup> Barad, 375.

<sup>140</sup> Barad, 152.

the world. In the next chapter, I will examine those collaborations in greater detail by exploring the interconnected processes of “pulling” and “making.”

## CHAPTER 4: PULLING AND MAKING

In the previous chapter, we heard Martha McDonald describe herself as “fixated on the materials that most carried the memory” and “traces” of their past owners. When I asked her “what’s the process where that [memory] gets made, and how does it interact with the physical traces of the person?” she told me two vivid object stories about dead people:

M: If you’re talking about objects that are connected to people that you actually have a connection to? Then I think the process starts to happen when you begin missing that person....Now, I’m not a parent, but I imagine as a parent, you can’t hang on to everything; that your kids leave when they go off to college or they grow up, so you have to make selections of things that—that strike a particular chord with you, or remind you of particular life events. I think that’s where those memory quilts that I was talking about serve a really important purpose: certainly generationally, like, here is a quilt of my great grandmother’s christening dress. Well, there’s no way you would have seen your great grandmother in her christening dress; *you* don’t have a memory around that. But it’s creating, or hanging onto, a lineage, or creating something almost like a family tree. **But it’s better, I think, because you can touch it, and you can see it, and it might have little wear marks** on it as well. I think when you’re talking about something like the dump, where I didn’t know any of these people—though I have to say that for some of these families, I felt like I really did get to know them, because—I mean, I felt a little guilty. I was reading their letters!...There was this one guy, this family, that I think had come from Cuba—because there were Cuban passports—and I did develop this really intense sort of relationship with them, because I dug through their stuff. I brought it home and spent a lot of—one quilt, this black quilt, it’s sort of all this one family, and I got really deeply intensely [pauses] into them. And I actually have hung on—I don’t know why—but I still have some of their photos in a box in my studio, because now I feel like we have been responsible—that I shouldn’t get rid of them, because **I developed this—strange—like, *relationship* with them**, even though they were all gone, um. [pauses, chuckles slightly].

G: I thought the example you gave was so rich: the memory quilt, where someone has selected and curated these objects and created a “lineage.” With the sort of relationship that you’re describing with this Cuban family whose box of stuff you have: how much of that meaning do you think is because it was meaningful to them in the first place, versus—

M: Yes, yes!...**Because if it had just been trash from the street that they had thrown out, I don’t think it would have had the same meaning.**

G: So what gives it that—

Martha: --the fact that it’s been, um—it was, you know, there were boxes that came, I mean, that—some of them were neatly in photo albums that had been preserved....**it was the fact that they had been saved.** [Emphasis added]

These stories show the richness of the two processes through which artists and objects materially engage at RAIR: pulling, a term used at the site to refer to taking things from the waste stream, and making, the practice of transforming those objects into art. Many features of Martha’s description, moreover, were echoed by other artists’ accounts of selecting and remaking objects at RAIR,

including Martha's invocation of her own family, the centrality of materiality suggested by the mention of the "little wear marks," her discussion of the complex relationship between human and object memory, her construction of "intense relationships" with past owners (in ways that led to "a little guilt[t]"), her feelings of "responsibility" for objects, and her "creation" of "lineages" and pasts through contemporary and historical processes of curation. Above all, though, almost every artist I interviewed shared Martha's perception of the site as a space of *loss*. Throughout our conversations, my interlocutors told me about death, about dead and dying objects, about "ghosts," "spirits," "revenants," and (metaphorical, but also literal) "ashes", and—most strikingly of all—about looking into the pile and seeing their own mortality. These stories, then, show how pulling and making are powerful and profoundly *generative* processes: together, they constitute a performative, boundary-drawing apparatus that reshapes the object, reconstitutes the past, and redefines the human.

To better understand this recasting, this section will take a brief detour into Barad's concept of "posthumanism." For Barad, "posthumanism marks the practice of accounting for the boundary-making practices by which the 'human' and its others are differentially delineated and defined," in contrast to "humanist and structuralist" approaches that "position the human as either pure cause or pure effect" and take the "body" as a "fixed dividing line between interiority and exteriority." Notably, this posthumanism attempts to move beyond the "limits of *humanism*," not to assert that "it no longer makes sense to talk about the human,"<sup>141</sup> but rather to show that "there are no preexisting, separately determinate entities called 'humans' that are...necessary components of all intra-actions...no a priori privileged status is given to the human, [because] 'humans' are emergent phenomena like all other physical systems."<sup>142</sup> In short, for Barad, the individual, the self, and the

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<sup>141</sup> Barad, *Meeting the Universe Halfway*, 136, note 6 (emphasis added). Notably, though many of Barad's concepts, especially as relevant to their notion of embodiment, draw on Donna Haraway's cyborg theories, Barad is not a posthumanist in the same sense as Haraway.

<sup>142</sup> Barad, 338.

human are all performative enactments produced by what they call apparatuses. The boundaries of individual bodies, and the broader meaning-making categories constituted by those boundaries, do not just change with context. Instead, those boundaries and categories have no meaning outside of specific enactments.

But the very richness of these boundary-drawing apparatuses—and of the process of picking to which they are connected—poses a profound analytical challenge for this chapter. As we will see, other artists' accounts are just as *dense* as Martha's; when I asked them about their practice, my interlocutors responded by telling me complex stories that touched on many themes. To linearize such complex stories in order to make my points according to an argumentative mode based on traditional Western epistemologies—that is, to break their stories into fragments and present each, without context, in the discussion of particular themes—would do violence to both the stories and any Baradian reading of them.<sup>143</sup> Such a linear structure would completely miss Barad's point that phenomena are what matters—that boundaries are *only meaningful insofar as they are enacted* in specific “material-discursive configurations of the world,” and are not abstractable from their specific contexts. That is, it is not possible to separate the reworking of the object, the human, the temporal, and the spatial, because the same intra-actions redefine all four. Even more importantly, such a structure would conceal the heterogeneity of different artists' perspectives and oversimplify the complexity of the stories they told me. The *impact* of Martha's anecdote about the Cuban family, for instance, is very different when presented, as in her telling, after a discussion of “creating a lineage” in her own family through photos of her great grandmother in her christening dress.

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<sup>143</sup> For Martha's story, *e.g.*, this might look like excerpting one chunk about “wear marks” and juxtaposing it with other accounts of physical use marks on objects, then presenting a few sentences about “creating a lineage” alongside other quotes about artists' relationships to their ancestry, then pulling a few phrases about the importance of “the fact that they had been saved” for a section on “curation”...etc., etc.

The chapter will therefore proceed according to the following structure. I will begin by discussing the *apparatus* of pulling (and the implications of that term); I will show its inseparability from the process of making, its intra-activity, in which neither the artists nor the objects are solely or clearly *agents*, and its boundary-drawing implications. Next, I will examine how pulling and making redefine the past and the future, then segue into examples that also highlight the process's role in redefining the human. Then, I will explore how artists' perceptions of the objects as dying shaped their practice. Finally, we'll explore the examples that most fully reflect boundary redefinitions: artists' stories of objects as ghosts, revenants, spirits, and supernatural entities, artists' stories of facing their own mortality at the site, and artists' stories of caring for absent others. Rather than seek to pry apart the various refigurings each story entails, I will instead organize the accounts thematically, discussing various boundaries simultaneously. Instead of a linear flow of examples which we analyze to build up ideas, in short, this chapter's structure will be more looping, or, to use Barad's word, topological: we'll identify important phenomena, then explore examples that demonstrate them (as well as other dynamics), then unpack some of the themes raised by those examples.

#### Pulling and Making as Generative Modes of Engagement

Let's begin by examining pulling and making in more detail. When I asked Nathalie if making work at RAIR felt different than her process elsewhere, she told me about how, given the scale of the waste stream, "it felt very good, as an artist, to make a selection...because there's so many things, and so many options, so to find something that you really want to keep, is, in itself, to make choices and make decisions, which is very valuable." Nathalie, in short, uses the practice of selecting objects as a way to process concepts. Later in the same exchange, she went on to describe

it as a mode of “thinking” that “revealed” ideas she could incorporate into her work.<sup>144</sup> When I asked Ang the same question, she told me how, when “other artists” would have been “collecting” physical objects “right from the beginning,” for the first two weeks, “I think the collecting that I was doing took the form of photographs...documenting grouping and stacking systems.” Even after she began pulling physical material, moreover, her process was very different from Nathalie’s. Ang collected “any kind of white EPS foam that was coming in and in clean (or clean-ish) form,” constrained only by how different pieces of foam “h[e]ld a certain kind of shape”; selecting different material, therefore, was an integral part of the “trial and error” process of “figur[ing] out how to...design a fabrication process that would produce a different type of bale.” In Billy’s practice, pulling plays a very different cognitive role: in our conversation about flags, he told me how

B: There are a handful of aggregates of things that I've been pulling that I don't know exactly what I'm going to do with. But I'm holding on to them, because there's some sort of—a leaning into, or some sort of attraction to, that makes them feel important...Instead of unpacking it [now], I'm aggregating, to be able to take a survey and address the feelings and potentials of what that might be in a future artwork.

G: What other aggregates [besides American flags?]

B: Religious ephemera: prayer cards, rosary beads;...costume jewelry, and jewelry in general; old currency; gold. You know, you've seen my office; there's, like, a very non-taxonomy of chotchke-love happening...That's a whole [other] part of practice: mulling over random thoughts and ideas about things and aggregating those...in order [for ideas] to start revealing themselves. I think my process is kind of: you aggregate, and then you mull over, and then you refine, and you edit.<sup>145</sup>

Tellingly, Billy describes the processes of curating ideas and physical objects that go into his creative process in similar terms—“aggregating,” “mulling over,” and “editing” are the key components of his making process with regards to both. His account also makes clear how the artists are not the sole *agents* of the pulling process. Billy’s choices are shaped, he tells us, by the “attraction” that certain objects exert on him.

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<sup>144</sup> In context, Nathalie’s account also clearly demonstrates that this “processing” is not confined solely to her mind; recall how, in Chapter 3, we heard her describe working with objects as a “gift” and a “mystery” because “their materiality participates in your choice.” That is, certain objects exert a pull on Nathalie, and this shapes which objects she pulls from the pile.

<sup>145</sup> Flag: moment of “socializing into ways of seeing” (*i.e.*, Billy teaches artists how to approach the yard, and selects artists for the program—so of course everybody is a collector.) pending if space/time to discuss elsewhere...



While Billy, Nathalie, and Ang's picking practices are different, they all show the intimate connections between the processes of pulling and making. For Martha, however, this connection went even further. When I asked her to elaborate on her description of her performance as a "ritual," she told me the following:

I'll start with looking at [and]...riff[ing] off the movements...[of the] workers at Revolution Recovery....I was really fascinated by the *choreography* of the...BIG pieces of equipment; somehow they weren't running into each other; somehow they weren't crashing!...I found that really fascinating, and I wanted to figure out a way to...physically embody that in myself. So I literally dug through the pile and I was putting things in baskets and...when I started working more with the objects, trying to get away from telling people what to think, I was like "well, how else can I convey this narrative? By *doing* something."...So...I created certain gestures that, for me...were referencing the big earth movers, and the—this [pauses]—the sorting happens so quickly! The guys' eyes are so trained, like if you've ever been up on the [sort line]...I can't believe people don't lose a hand on that! They—so I was trying to sort of—I got so comfortable being there, and I started being able to train *my* eyes to know what I wanted and what I didn't want. So I just sort of *did that* in the performance.

In *Songs of Memory and Forgetting*, in short, pulling was not just connected to the art that Martha made; the practice of pulling *itself* was part of what she used her piece to interrogate. Ang and Maria, strikingly, also told me that the process of pulling itself made up a major component of the critical content they hoped to use their work to examine.

The process of selection, moreover, is not only significant in the context of the artist's own practice. Past curation can mark the objects in a lasting way that reshapes the artists' own pulling practices, as with Martha's assertion that the "meaning" of the objects from the Cuban-American family came in part from "the fact that they had been saved." Shelley agreed that curation could endow objects with meaning—but, unlike Martha, saw that meaning as fraught:

So if you gave me something that you loved, that was your grandparents', ... it'd be very important to me, not just because it was your grandparents', but because they saved it, or you saved it, or somebody saved it for some reason. Like why did you save this *one*—? And it has meaning because of its importance to you, and especially if it was important to them once—important might not be a good word, but, like, significant. So I guess they're a kind of marker. If you...no, somebody—I'm going to take you out of the equation—somebody gave me their parents' wedding dish, or something from the wedding, because they saved it, because it symbolizes this moment, love, family, time, you know, blah blah blah. But what if they were divorced? Right? It changes. Because they don't want it...they're trying to forget it. So there's something about *coveting*, you know—like, some of the stuff that I collected from RAIR, maybe if I knew the history of it, I wouldn't want it. Like I think I told you the story of this lot that we got of a young guy's stuff. And it doesn't seem like something good

happened, okay? All this new stuff. Something seemed nefarious—like, *something*. Like, why was there soup with stack tags still on it?!

For Shelley, setting aside an object endows it with a kind of “importance” or “significance,” making it a “marker” for the “reason”—positive or negative—that led someone to save or discard it. The end of the chapter will return to Shelley’s ambivalence about picking objects with potentially “nefarious” “histories. Of immediate relevance, however, the way this ambivalence led her to reflect on the “coveting” that she suggests drives her larger practice of selecting objects throws the lasting impact of curatorial practices into even sharper relief.

Through these accounts the connected practices of pulling and making emerge as an apparatus: a “specific material-discursive... boundary-making practice[e] that is productive of, and part of, phenomena,” and a “reconfigurin[g] of the world” that itself constitutes a “phenomen[on]” with “no intrinsic boundaries.”<sup>146</sup> Apparatuses are thus a subset of phenomena, but, as defined by Barad, the boundary separating them from other types of phenomena can at times be slippery; the terminology seems, at least to some extent, to be a vestige of the physics tradition in which Barad writes, especially the work of Bohr, which we discussed in the previous chapter. What makes apparatuses, at its simplest, is their capacity to enact *agential cuts*, which, for Barad, largely means the performative capacity to render entities separable/definable within phenomena. As they write, “apparatuses enact agential cuts that produce determinate boundaries and properties of ‘entities’ within phenomena, where ‘phenomena’ are the ontological inseparability of agentially intra-acting components...only through specific agential intra-actions...[do] boundaries and properties of ‘components’ of phenomena become determinate,...[as] the apparatus specifies an agential cut that enacts a resolution (within the phenomenon) of the semantic, as well as ontic, indeterminacy.”<sup>147</sup>

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<sup>146</sup> Barad, *Meeting the Universe Halfway*, 146.

<sup>147</sup> Barad, 148. When discussing Bohr’s work, Barad makes a similar point that may be helpful in both understanding what is meant by an agential cut and in understanding the natural sciences context this division comes from: “The boundaries and properties of component parts of the phenomenon become determinate only in the enactment of an agential cut delineating the ‘measured object’ from the ‘measuring agent.’ This cut, which enacts a causal structure that

The sorts of storytelling and materialization that we called phenomena in the previous chapter, for instance, could certainly be called apparatuses as well; since, however, we were focusing on the inseparability of their intra-acting components, not the agential cuts through which actors become differentiated, the simpler term was not only sufficient, it also emphasized relevant attributes of the situation. To put this in simpler terms, apparatuses are “practices through which [specific iterations of] divisions” like “human/non-human” and “nature/culture” are performatively constituted, along with the boundaries between individual “bodies” and their “environments.”<sup>148</sup> Recognizing that the objects pull the artists, not just the other way around, doesn’t mean the objects have agency, as a vitalist new materialist (like Jane Bennet) might argue. Rather, the point is that neither humans nor objects *have* agency in any meaningful sense. Instead, agency exists in their specific intra-actions—just as it is only through those intra-actions that the boundaries defining objects and artists meaningfully exist. This, then, allows our Baradian reading to attend to the capacity of objects without falling into the “fetishistic” trap that Hornborg persuasively argues plagues vitalist perspectives. Over the coming pages, we’ll explore some of the implications of these *boundary-redefinitions*.

#### “It isn’t junk, it’s like a time capsule”: Processing the Past and Prefiguring the Future

The acknowledgements with which Karen Barad opens *Meeting the Universe Halfway* set the tone for their genre-defying, unconventional book. Rather than simply present a list of people who helped them, Barad offers a lengthy, lyrical meditation on the nature of writing and collaboration itself—a necessary approach, they argue, because of the nature of memory itself:

Memory does not reside in the folds of individual brains; rather, memory is the enfoldings of space-time-matter written into the universe...Remembering is not a replay of a string of moments, but an enlivening and reconfiguring of past and future that is larger than any individual. Remembering and re-cognizing do not...satisfy...one's responsibilities...[and]

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entails the ‘causal agent’ (‘measured object’) marking the ‘measuring agent,’ is determined by the specific experimental arrangement, or material configuration.” Barad, 337.

<sup>148</sup> Barad, *Meeting the Universe Halfway*, 169–70.

the past is never finished. It cannot be wrapped up like a package, or a scrapbook, or an acknowledgment; we never leave it and it never leaves us behind.<sup>149</sup>

Much of the rest of this thesis will revolve around unpacking the issues raised in this paragraph; in particular, Chapter 5 will explore the “responsibilities” entailed by “re-cognizing” the past. Of immediate interest, though, is Barad’s claim about the performative “mattering” of memory: rather than “a record of a fixed past” conceptualizable as a discrete “thing that can be owned,” they tell us memory is a dynamic process of “enlivening” that is “written into the universe” itself, not just an “individual brai[n]. Later in the book, they state this more directly: the “intra-actions” that make up “materialization,” Barad writes, “[are] not marked by an exterior parameter called time, nor d[o they] take place in a container called space. Rather, *iterative intra-actions are the dynamics through which temporality and spatiality are produced and iteratively reconfigured in the materialization of phenomena and the (re)making of material-discursive boundaries and their constitutive exclusions.*”<sup>150</sup> (Chapter 5 will discuss the implications of this point for spatiality; for the moment, I will focus only on the issue of *time*.)

Barad’s argument, moreover, is an articulation of a coherent ontology grounded in physics, not a mere elegant social theory metaphor. “In” Barad’s “agential realist account, what is at issue is not merely that time and space are not absolute but relative (following Einstein); rather, it is that intra-actions themselves matter to the making/marking of space and time.”<sup>151</sup>

Let’s turn our attention back to the artists’ practices. I have shown artists describing the past in their picking processes throughout the preceding sections of this thesis, from Billy’s description of how he picked American flags because “an individual’s history” can “charge” them with such meaning to Maria’s account of objects’ previous lives, both “functional” and in terms of what the

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<sup>149</sup> Of note: this articulation of the notion of memory—and the broader set of concepts of which it is but one articulation—seems to have important resonances with Talmudic philosophy and Jewish practice, especially the ideas of “living Torah,” the Passover seder’s complex ritual temporal practices with the story of Exodus, and Abraham Joshua Heschel’s formulation of Judaism as a “religion of time.” (Barad is herself Jewish—and their wife is a rabbi!) Barenblat, “Gleanings on Kabbalah and Quantum Physics.”

<sup>150</sup> Barad, *Meeting the Universe Halfway*, 179.

<sup>151</sup> Barad, 180.

objects “enjoyed.” As with other similarly charged issues, though, it’s critical to note that the artists understood what the objects meant in a wide range of ways. I will begin by accounting for the issue of the past through more material-focused projects, then move on to more object-focused ones. Of all the artists I interviewed, 2022 resident Narendra Haynes’ work was the least focused on humans. In his project, titled *Field of Preflection*, he collected Styrofoam from the Superfund site, fashioned it into a sculpture of a meadow, and allowed it to be colonized by a community of mealworms, which eat the Styrofoam, digest it, and excrete it as a powdery, soil-like substance from which he intended to plant a living meadow. When I asked Narendra whether he decided to pick material from the Superfund site because he thought the act of picking was important, or that Styrofoam was intrinsically special, he responded:

I think both!...Once you get out of the abstractions of language and into the rich materiality of the world, you realize that everything impacts everything: so the history of a material is written on it, the same way that the history of a life is written on our facial expressions, and the lines on our face, and how our body ages. So, very much so: the history of the meadow and the material was embedded in that material aspect—[in] everything from this kind of collection of dust and dirt that was over and in it [to] the degree that it aged. Not to say I necessarily highlighted that in the work, because it...all got subsumed into this representation of a meadow—but for me that connection is real, and if I took random Styrofoam that I just found in random places, it would almost be like, insincere, for me.

In short, even in the least human-centric project, the process of pulling and remaking the materials also reworks their “history,” which is both “embedded” in and “connected” to the object’s very “materiality.” These object “histor[ies],” moreover, are analogous to how a human “life” is “written in our facial expressions, and the lines on our faces”—in, to use Barad’s term, the “marks on bodies” that apparatuses leave behind. (Beyond just refiguring the past, Narendra’s project clearly also redefines the boundaries of the human. In fact, Narendra saw challenging the equation of human/nonhuman and subject/object divisions as a key focus of his work, telling me, “what’s powerful about” using mealworms in the work is how they “are kind of like the agent in the work, I’m more of like the [pauses]...person who provides the context for that agency.” For the moment, though, I will set this aspect of his practice aside.)

Ang's practice of picking EPS, like Narendra's, focused primarily on the waste as *material*. I asked her if she thought about "the specifics of" the pieces of material she put in her bales, she told me how "I didn't want" the selection process "to turn into...an aesthetic decision on my part"; since that is "of course hard when you're making an art piece," she classified the EPS stream into "general formal categories" and devised "systems or rules" for what to pick and how to incorporate it.<sup>152</sup> That being said, her bales were still deeply involved in questions of memory. Ang said the following in response to a question about if/how she thought about the objects' pasts when picking:

I've seen other projects that have come out of RAIR where there's a lot of focus on that individual object...but I guess I think about the memory, or the pasts, of the objects in a very different way: where it's sort of in bulk, and it's more about looking at the piles at RAIR, but also the **bale as a kind of index**. Like, **instead of a bar chart or a pie chart, how can an object like this reflect larger processes of material movement, whether it's an EPA policy change, or a shift in the commodities market that means something is more valuable than other things?** I think we saw a lot of aluminum bales when I was at RAIR, because aluminum was somehow dipping in price back then and nobody was selling them—so there were these kind of graphs that were taking place on the site that took the shape of these other things. So to me, that's kind of **interesting reading of the past lives of these materials: what they represent in terms of larger environmental or social patterns, or economic patterns**. I think, for plastics and EPS, I'm also really interested in this idea of a kind of **future fossil**: how do we think about this material that we still today talk about as kind of an intruder, a kind of unnatural intruder into our environmental systems, as a new kind of **natural or nature/culture hybrid kind of material**. Not necessarily in a positive or negative way, but how do we kind of view it as part of our geological landscape? And in that way, when you look at the bales that I was making, you start to see patterns that are kind of hidden in this type of rubble—things that start to emerge. So like, computer packaging, or food packaging, or something that **indicates a type of consumption practice that we're used to that maybe one day we'll seem very foreign**.

Ang's practice of choosing material, in other words, was a (material-discursive, naturo-cultural) apparatus that reified the past. The practice of picking an "index" according to standardized "rules" and "protocols" allowed Ang to "rea[d]" the "past lives of the materials," which chronicled "environmental and social patterns" and "larger processes of material movement." In so many words, these "pasts" are produced by dynamic intra-actions of her specific material-discursive

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<sup>152</sup> Ang returned to this concern that *Balancing Act's* bales would be "overly composed" several times throughout our interview; in response to my "anything more to add" closing question, she told me that "the biggest anxiety I have about my work in general is that I don't want it to look like a bricolage project...this very kind of romantic, sensitive piling of things."

picking practices and the residues of past apparatuses inscribed on the material itself—the “marks” on the pieces of EPS’ “bodies.” The apparatus of production that Ang describes is, moreover, deeply Baradian. Take the theorist’s allegory of a “dynamic gear assemblage” where each cog is remilled by the action of other components, which they use to describe how systems of production are shaped by the material traces of prior productive arrangements: therein, Barad writes, the “sedimenting marks of time do not correspond to the history of any individual gear but rather are integrally tied to the genealogy of the assemble and its changing topology; that is, to the processes of inclusion and exclusion in the reworking of the boundaries of the assemblages.”<sup>153</sup> As in Barad’s quantum gearbox, so too in Ang’s indexical bales: the “genealogy of the ensemble,” as reflective of past “processes of inclusion and exclusion,” is what the present-tense act of curation ultimately reconfigures. And, as Ang’s example of the “future fossil” makes clear, such material-discursive refigurings of the past have profound—and complex—impacts on the future.

Other artists, moreover, outline the future-shaping role of the histories produced by picking and making in more explicit terms. James described how he saw his practice with used objects as “making work for folks who are not even alive yet...it's like a compression of, how we see time in the now: the now is the past, the now is the past, the now is the past—in then, a universal, or maybe a divine, sense, time gets compressed so past, future, and present [are] compressed—it’s something...where I feel you can’t really place the work.” When asked to elaborate on an answer where he described seeing “meaning” in the objects, Lewis responded:

There’s this passage in Tolstoy’s *War and Peace* where he goes into the calculus of history... this crazy...idea that in some sort of Utopian way, if we integrate the sum of everyone's individual actions, we will then have a cohesive theory of the past, and maybe even the future...But it’s like: of course we can't record every single thing—and nor should we! But that tension: there is all this stuff that has meaning but, collectively, through whatever fair or unfair process—what gets preserved, right?...We have so much, and we're just like—it just happens to be in the wrong place at the wrong time. And...in a different way of organizing

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<sup>153</sup> Barad, *Meeting the Universe Halfway*, 239.

our lives in society, most of this doesn't have to be gotten rid of, and could be put to use in a much more fair and useful fashion than it is.

Billy, James, and Lewis' perspective on the objects as, in James' words, what "has happened in the past" that "comes to this place to have some type of future" is not fetishism, as Hornborg might argue. Rather, it's a recognition of the "marks on bodies" that Barad argues underly the conditions for objectivity, and of the power of the memory work done on Milnor Street. Barad describes how just

as the rings of trees mark the sedimented history of their intra-actions within and as part of the world, so matter carries within itself the sedimented historicalities of the practices through which it is produced as part of its ongoing becoming[.]...Time has a history. Hence...[i]ntra-actions are temporal not in the sense that the values of particular properties change in time; rather, which property *comes to matter* is re(con)figured in the very making/marking of time.<sup>154</sup> This, then, is another powerful dimension of the apparatus of picking: an intrinsic part of

what it means to refigure past and the future.

Moreover, the temporality of the processes of pulling and making *themselves* are reworked by the practices of the site and the materiality of the objects. On pulling, when I asked Lewis if working at RAIR felt different than other places, he described how the "RAIR yard is so unique" because the tempo of Revolution Recovery's operations means "you don't really have time to contemplate what a thing is—it's just like: grab it, push it to the side, and then *maybe* later you can sort out why you responded to it." Billy told me that used objects are interesting because they are "archive[s] of practice" that "connot[e] the amount of lifespan and the amount of activity that [they] aided in"; when I asked him why that made them important, he told me:

I feel like you are honoring something that is overlooked by the majority of people, and that you've been given an opportunity...investigate, in that nuance that is so easily obscured by the run of everything that is here moving in such a fast pace in this kind of supercharged capitalist appetite for speed and money. There's a slowness to it that I personally am—I struggle to implement, but absolutely adore and cherish, when given the opportunity to spend that time to reflect on that nuance that often is overlooked.

Billy's description highlights the complexity of the pulling/making apparatus: Revolution Recovery workers' practices, alongside the inherent history and agentic capacity of the objects themselves

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<sup>154</sup> Barad, 180.



intra-act with RAIR artists' own processes to refigure time itself. Through the entanglement of all these actors, temporality is reconfigured.

As these examples suggest, the redefinition of time is intimately connected to the refiguring of the boundaries between objects and people. I will now consider some examples that address these connected processes. As powerfully as Ang and Narendra articulated a material-focused vision of the past in the picking process, even more artists told me that their practice refigured time in humanistic, object-focused ways. For instance, when I asked Shelly why she preferred even *material* she incorporated into her works to be used, she explained that:

I think it has to do with human—the human experience, and human contact, and time, and history. And how the piece of wood at Home Depot might be perfect and new and shiny and stuff, but it's a product of industry. Whereas, if I—[pauses] people give me stuff all the time. My friend bought an old house, and he was breaking down a wall, and...he was like “I have these beams—or not beams, studs. 2x4s. You know, my house is from 1900...and I'll bring 'em to you.” ...It's not necessarily because it's free, it's because it has a lot of history: people lived in that house for 100 years. It's just dense with this intangible thing that I can't explain. I think about it all the time—what is that intangible thing? But it's—a time, a history. And it's [pauses] the last thing is, it has to do with humanity.

Shelley's description is unequivocal: for her, the time that accretes in used objects is something “intangible” that “has to do with humanity.” This is, of course, not the first time we've heard objects described as “dense” with an intangible “time,” “history,” or “humanity”; we've already seen Billy, Lewis, Anamaya, Maria, and Olivia outline similar points of view. Of all my interlocutors, however, no one connected their pulling practice to objects' human pasts more strongly than Martha. At the very beginning of our conversation, when I asked her what it felt like to work at RAIR, she told me it was intensely emotional, because “every day, there'd be maybe like *five*, or *eight* lives being dumped” on the tipping floor—and, as quoted at the beginning of Chapter 3, she saw her role at the site as “memorializ[ing] these folks that had died.” Moreover, her performance on the tipping floor reflected these themes: as part of *Songs of Memory and Forgetting*, she sang original compositions with lyrics taken from letters found in the waste stream, displayed quilts made out of salvaged photos, hung found garments on a clothesline, and passed around especially resonant objects for the

audience to hold. Several times in our conversation, she said that “some of us ends up in our objects”; when I eventually asked her to elaborate, she paused, then slowly said the following:

I think about how it can be very comforting...if someone dies, and you are able to...have the sweater that they always wore, and the jacket that they wore, you have this memory of always seeing them in it, so that's one level of memory. And then you have their—it sort of smells like them...Just as an aside: British tailors...during the 19th century, used to call the wrinkles and the wear on the elbow—they used to call it the memory. So I feel like our clothes always have our memory, even when we're alive and we're wearing them. They have the memory of where we wore them, or, if it's somebody else's clothes, then where we saw them in it. But I feel like there's also this...it somehow allows us to hang on to the physical presence of the person...the same way that in the Victorian times...they would put hair in lockets—it's like a, somehow a desperate attempt, in a way, to hang on to the physical body of the absent person. So I'm very interested in—in kind of this idea of absence and presence. And how do we [pauses] how do we, as the ones who are left behind, hang on to the presence of someone? And also, like, let go of hanging on.

Strikingly, this “memory” was incredibly physical: Martha described collecting shoes, because

“looking at the places where you...see people's corns stuck out, and the shape of the toes, and you could see that somebody walked more on one foot than the other—that was so intense and kind of

beautiful. Like, that's the *memory of that person's body*. Our clothes really carry the memory of our

bodies.” The form of “memory” that Martha describes finding in these objects thus clearly effects

multiple transformations. On one level, it “re(con)figur[es]” time in a deeply Baradian manner:

Martha and the objects intra-act to produce, in Barad's words, an “enlivening and reconfiguring of past and future that is larger than any individual,” not a mere “replay of a string of moments.”<sup>155</sup> Just

like Ang's “indexical” pulling, Martha's excavation of memory in clothes and other objects

constitutes a temporal boundary-drawing apparatus that refigures past, present, and future. Equally

importantly, however, the sense of *loss* in Martha's description clearly reflects a transformation of an

entirely different sort. The way Martha sees the “physical presence” of people in the objects raises

questions about the boundaries of not just time, but also life, death, and the nature of the objects

themselves—and, ultimately, about the very boundaries of what is human.

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<sup>155</sup> Barad, 179.

## Object Deaths

As noted at the beginning of the chapter, in the context of their pulling and making processes, my interlocutors told me many stories about death; these refigured the boundaries between objects and humans and life and death in profound ways. I will present a broad variety over the coming pages, but the section will begin with some relatively concrete examples: stories in which the artists told me how objects *themselves* came to Milnor Street to die. Strikingly, this very specific perspective came up in a quarter of my artist interviews—which suggests it reflects an important aspect of practice on site, but also means that these stories inevitably reflect the heterogeneity of different artists’ perspectives. Consider Olivia’s description of how pulling objects from the pile was different than “secondhand shopping”:

At RAIR...the pace is much faster, because there’s a pile, and the thing is there, and then when you’re done, you just throw it back to the pile. So the lifespan of the object, one—it’s already at the end of the life of the object anyway, because it’s at the dump, but the lifespan of it in your hand is like even shorter, because you’re at the dump, and...you just kind of put it back.

For Nathalie, by contrast, these object deaths were less final and more connected to humans: when asked how it felt to work at RAIR, she described how:

There’s this idea of **this thing that you cannot get rid of—and that’s what you’re working with, and through**. These are the leftovers, and these are the **things that cannot just disappear**...You[re] just picking a few stuff for a project, but, I mean, you’re aware of like: **this is society**... And then you’re just thinking that...while this is going on, there is a lot of new stuff that is being produced,...[so] it also made me think a lot about like, you know, **land. It’s just this idea, it’s the bodies that don’t go away, in a way**.

Anamaya, her artistic partner, also positioned Revolution Recovery as the end of an object’s life; as previously quoted, she described some objects, after their “birth” at their manufacture and lives of functional service, as “surviving” the dump’s enormous “force” (*i.e.*, by remaining intact for her to find). She understood the process that these survivors were avoiding, however, very differently than Nathalie or Olivia: while at RAIR, she told me how “I kept thinking about this digestive process...I was reading about compost and about this recircling of ideas,...[and] how fermentation is such a

rich place, ... [so] it was just, like, *so* amazing to slow down the digestive process every once and a while.”

Nathalie, Anamaya, and Olivia’s accounts—their strikingly similar metaphors, and strikingly different points of view—highlight another set of transformations taking place in Tacony. For Olivia, objects at the site are already at the end of their “lifespans”; as her description of the short extension of objects’ lives “in your hands” makes clear, this life stems from human use, and it straightforwardly ends with the objects’ return to the dump. For Nathalie, by contrast, objects’ lives reflect, and participate in, more complex processes of consumption and production that are constitutive of “society” itself—and, whether through incineration or direct landfilling, the objects are “bodies that won’t go away”—they still take up “land” somewhere. Anamaya, meanwhile, saw the objects’ life cycles as biological, situated in a broader ecosystem of “digestion” and “fermentation.” In all three perspectives, however, we see how pulling and making powerfully refigure not just the past, but also the boundaries between life and death—and the objects’ position within them.

For other artists, though, object deaths were more intimately connected to the fates of human beings. Maria powerfully outlined such a point of view several times in our conversation. First, when I asked if she thought about past owners when selecting objects for *One Last Time*, she described how

M: the only thing that we touched upon a little bit, was a lot of times when you have these household cleanouts, it is because someone has died....But we don't actually know that they're because they died! It also can be someone's just cleaning out their garage, or moving. So it...had the little bit of that in the back of your mind, but it was really about—like, the *object* has died. The object’s been recycled, or has been sent to be put in a landfill. So it's the object that has faced its mortality.

G: Yeah! Where does that sort of “meaning making,” or “meaning adhering” potential of objects come from...[if] not the past users?

M: Throughout human history...when you uncover—when you dig up—my father was an ancient historian. So it's like: when you dig up a grave, what do you find? You find people, and you find their objects, right? The objects that people use, that they might need to use in the next life. The objects that people use have, you know, [pauses] *resonance* that carries forward...if you loved someone and they passed away, you want to have one of their objects

that you have, and that you hold. So I feel like that's part of the way the objects carry a certain... weight...[and] they provided a pathway for...a sort of ritualized experience for the people who are participating, in terms of—I mean, I don't even know! Like, we didn't talk about it afterwards, right? I don't even know, necessarily, what that is. But just that people, after having gone through, or living with, their closeness to their own mortality enacted this ritual that included something tactile and tangible.<sup>156</sup>

Later in our conversation, Maria told me that despite finding “personally resonant” items, she “didn’t take anything with [her]” from RAIR; when I asked her why not, she laughed and said “because after they’ve been—within the structure of the project, it was just like, no! They get to leave the dump once, and then they have to go back, and some other object doesn’t get a reprieve just because I liked it!” By likening removing an object from the landfilling process to offering a “reprieve,” Maria suggests the objects are not just dying, they are *condemned to death*—and, accordingly, no matter what, they ultimately “have to go back” to “face their mortality.”

For Maria, in short, whatever fraught human meanings may or may not be connected to an object, one thing is certain: for her, as for Olivia, landfilling or recycling—the removal of an object, at least in its present configuration, from human usefulness—represents the object’s “death.”<sup>157</sup> Barad, however, provides insights that destabilize this view. Even setting aside the fact that most waste at Revolution Recovery ends up being recycled, not landfilled, and accepting that the objects at the site will never again be used by people, Barad tells us that the intra-actions underlying materialization and knowing—that is, underlying the agentic “life” of an object—do not require humans; an objects’ “death” with respect to a particular set of human users does not render it “dead” to the universe. Strikingly, immediately after claiming her work considered “object deaths,”

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<sup>156</sup> Note also the resonance of Maria’s description of not “know[ing]...what that” *thing* that “we didn’t talk about afterwards” precisely “is” with Shelley’s inability to precisely define the “intangible thing” that renders used objects “dense with humanity”—and uncharacteristically high number of the pauses and redirections as both artists try to describe that meaning. Yet again, this shows how objects participate in meaning-making processes; the artists experience their materiality as capturing dynamics that are impossible for people to express in words.

<sup>157</sup> This is, strikingly, essentially the traditional American waste management outlook as outlined by Joshua Reno: an industry model in which objects’ trajectories are a linear progression from manufacture through use to “end of life” disposal, at which point the waste management system functions to make them disappear so they no longer have to be thought about (at least by certain populations). Reno, “Waste and Waste Management.”

not “human deaths” (since, as she insisted, “we don’t know” where objects come from), Maria proceeded to tell me a great deal about the resonance with which *dead people* imbued objects. She was not alone in likening objects to dead people; I will return to such connections at the end of the chapter. Immediately salient, though, is how intimately Maria’s practices link objects to human lives. As she puts it, “when you dig up a grave...you find people, and you find their objects”; the “weighty” materiality of the used objects from the RAIR waste stream provides a “tactile and tangible” element key to her “ritual” for dealing with human grief.

In short, Maria’s practice refigures the boundaries of what is human—a theme she even more starkly illustrated at the end of our conversation. I closed each of my interviews by asking the artists if there was anything important we hadn’t discussed. Most of my interlocutors didn’t have a response (understandably, given that it is such an open-ended question), but Maria told me

In terms of the process of returning the object to the dump, and sort of what a dump, a recycling center is, especially when you’re dealing with people’s personal objects that turn up there... there’s a very sad lens that you can look at it through. There’s sort of an elegiac quality to it, but just as often it’s like...when you do actually experience a funeral, or a memorial service, or something like that. The actual process of returning the object was also very banal. And just, you know, we had this kind of, like: “okay, we’re gonna do this! Isn’t this interesting? We’re talking, we’re laughing. Okay, let’s take a moment to do this.” Like, there was that element that that mirrored the...the actual experience, often, of putting something to—putting something or someone to rest.

The process of recasting these objects is, as Maria’s statement shows, clearly a “boundary-drawing” apparatus redefining not only what is alive and what is dead, but also what is, and isn’t, human.

#### “Dancing with Ghosts”: (Un)dead People

Over the course of my interviews, several artists told me about how, when selecting objects from the waste stream, they experienced the presence of “spirits,” “magic,” “ghosts,” and “revenants”—in a word, of both human and more-than-human manifestations of the supernatural.

Martha saw such manifestations as central to the work she wanted to do at RAIR:

I just decided...this was my assignment: to...explore the [pauses] the personal effects pile, that’s what I called it [chuckles slightly] and to draw out—to make art out of this...that would cause people to think about *memory*, and *forgetting*, and...the impermanence of life. Like we’re all...hanging around by a thread. We could go at any moment, and the [pauses]—like,

without sounding totally witchy, but—that *veil* between the living and the dead is, you know, like *really* thin.

But Martha was not alone. Less than five minutes into our interview, in response to the first question I asked him about RAIR, James told the following about the site:

RAIR...is the tri-state area. And...it isn't junk, it's a time capsule, right? I mean, you as an anthropologist, you know, it's like—coring certain things...[shows] the **existence of the residues of someone's life**, right?...And it's very, very heavy. It may **not look like a spiritual place from the optics of it, right? But there are a lot of spirits running around there**, for sure.... You're dealing with **the now, but you're also dealing with what was**. It's very intimate...the things that I ran across there.

Later, James described how initially, he saw RAIR as “mountains of stuff” where you could “pick anything,” and he “always came out with something”—until he found three objects that dramatically changed the emotional valence of pulling from the piles:

J: The first thing was...a portrait—I think it was maybe circa 1950s—of a bride in her wedding dress...The frame was busted, and a tire track going right over her face. And it's very beautiful...her whole life, at that moment, was ahead of her, right?...And I just looked at it. And it's like: all of her stuff is going to be eaten up and thrown away—it's really like dust to dust, right?...It just *bit* me, and I'm like “*where am I?! I thought that I was at a residency, but this turned into a whole different thing!*” And I try to shake it off, right?...[But] another time...there was a [pauses] a dresser drawer. And...I just moved it to the side, and then all of these World War I medals like spilled out. [laughs] And then like a picture, and then his—like, his doughboy wraps that they wrapped...up and down their shins...I said, “okay...let me stay out of here—something is really happening. I'm going to deal with it.” But I was just beginning to gather things so I could start making work...The third one was a chest, and it was busted open, and I was going through it, and all of these cards and [laughs] love letters spilled out.

G: Did you read them?

J: I read the outside, but I kept them, and they're in my storage, you know, kept and wrapped up. And I'm thinking like, “...**you're not dealing with the body, but you're dealing with what the body has done...in the intimacy of script, right?**”...I know that person is gone, and it was a moveout, a clean-out of their home, right, so it's not like I can go to the address and say “hey, here is your—here's your stuff.” **That could open up...other trauma**...or it could be “oh, that person doesn't live here anymore.”...I don't know, but it's just there. **And it's kind of like their ashes, right?**

Finding “ashes,” moreover, could be more than just a powerful metaphor. One interlocutor told me about finding an urn containing cremated human remains, and “not knowing what to do,” because “allowing somebody's remains to be buried in landfill...whether that person was religious, or their family was religious...at least it's a purgatory to that point. It's not being disgraced by being—you know, thinking about what landfill can be in a symbolic way, I feel like that's...the worst,...most disrespectful way of allowing somebody [to pass].”

For other artists, the dead were more active—and supernatural—as in this object story that Anamaya told me:

One day Billy and I found this trunk, from this person Raymond [surname], who was in World War II...and we found bullets with blood on it! And he was in Japan. You know, so it was just like this whole thing where there's so much—there's so many ghosts, you know? And I think that **there's so many ghosts...in the things that we make, and the things that we touch, but then, I guess, in that place especially, you could just like—it was just *dancing* with them, you know? Like anything you touched, it would just have it.**

On a similar note, Billy told me how the items he picked had a

cosmic fucking energy. There's this idea—I don't know if you really believe in the spirit and the soul, but, like...I think that a lot of the materials here as well have some sort of [pauses] embodied energy beyond just the manufacturing or how we think about it in environmental terms...I think that the object that was cherished, or the heirloom that was loved and passed down generation to generation—there is no scientific way to say that has any embodied energy that's beyond just what was put into manufactur[ing it]...But there's something magical about it when it's existed for 250 years as well, and I don't know exactly how to describe *that*...There's a palpable [energy]...when you think about the vast geography of where all this stuff comes from, and how it is being funneled into this...it's like, what the fuck is that? And I think some of that is just...*magic*. ...**There's something there more than just these objects that are made out of plastic and wood and metal.**

Nathalie, for her part, described the activity of the materials in the most vivid terms of all. She was tempted to complete a project that focused on materials according to their “previous existence before coming to the cemetery,” but opted not to because of her concern that the prior owners who had tried to dispose of the objects might see them. In the context of one particularly loaded object, a “locker” with the military memorabilia of a Korean War veteran, she described how “I was always thinking...imagine if someone would see [the object and think] like, ‘why?! This one’s come back?...Fuck! We thought we’d had destroyed it, but no, it’s back! How come it is still circulating? It's not possible!’ You know, it’s like a *revenant*—like someone who [has] come out of death.”

How should we make sense of the artists’ accounts of a pile populated by the living dead? To dismiss these descriptions as mere superstition (on account of their supernatural language of “magic,” “ghosts,” and “revenants”)—or, to put such a critique in slightly more sophisticated terms, to read them as mere symbology, extant only in a confined cultural domain and deterministically motivated by their function in a discursive system—would be both deeply disrespectful to the artists



and profoundly antithetical to the spirit of a Baradian reading.<sup>158</sup> Rather, the artists' picking practices represent an apparatus that makes sense of profound loss by enacting an agential cut that redefines the boundaries of the human. This interpretation of the waste is, of course, shaped by context. Because of the depth of Billy's involvement in artists' time in the yard, his own perspective inevitably shapes the artists' picking practices, and, broader systems of violence and loss in Philadelphia also color the artists' perceptions of the meaning of the waste, as the next chapter will explore. The examples presented here, however—the “tire track” through the face of the wedding portrait, the trunk of blood-stained bullets from WWII, the beam from the centuries-old house, the urn of human remains—hopefully make clear, though, that the artists' perception of loss at the site goes beyond mere socialization into ways of seeing. Through picking practices that inscribe not just death, but also spectral activity from beyond the grave, the artists attribute human characteristics to these objects and this material. Barad describes how

Bodies are not objects with inherent boundaries and properties...[and] '[h]uman' bodies are not inherently different from non-human ones....Theories that focus exclusively on the materialization of human bodies miss the crucial point that the very practices by which the differential boundaries of the human and the nonhuman are drawn are always already implicated in particular materializations.<sup>159</sup>

As the previous chapter explored, the objects in the waste stream are already marked as outside the boundaries of human community: as Billy described, through being “charged” by being “marked as waste,” and by being transformed into commodities by Revolution Recovery. In light of this, by *pulling* the objects and materials' human memories—and keeping them, whether in their art, their personal collections, or their stories—the artists welcome them, and, in the artists' perspective, their

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<sup>158</sup> In other words, I'm arguing that this example shows how a neo-Douglasian anthropology of waste inevitably carries with it Douglas' own colonial assumptions. Such a structural-symbolist reading requires an anthropological objectivity capable of perceiving the functionality of symbols—an objectivity external to, and superior to, culture. As noted in the introduction, the RAIR artists possess a great deal of socio-cultural capital: most have advanced degrees and many hold faculty appointments at universities. If we dismiss their perceptions as superstitious culture, who, then, would be the receptacle of objectivity? Of course, the point is precisely *not* that the artists' academic credentials make their perceptions any more or less valid than anyone else's; rather, it's that the Baradian recognition that there is no objectivity external to specific “apparatuses” shows the impracticability of a Douglasian approach.

<sup>159</sup> Barad, *Meeting the Universe Halfway*, 153. The next chapter will return to the implications of these “exclusions.”

past users, into the human fold. These practices, moreover, like all apparatuses, recursively marked the intra-actants on both sides of the agential cut—the artists did not return from the waste stream unchanged.

“Right to RAIR”: The Pile as *Memento Mori*

Five artists told me that pulling objects from the waste stream and remaking them into art made them think about their own mortality: James, Shelley, Billy, Lewis, and Martha. We’ll consider three of these stories here. When I asked Lewis if, when picking, “specific objects” evoked “particularly strong feelings in you,” he outlined both a story about his own death and a critique of society and its practices of consumption:

this again is going to be a function of...who I am, but the one that really broke my heart to see, was that one day...a whole Dumpster came through full of a person's huge collection of model airplanes...These were not just the little plastic dealies that you can buy at the hobby store; this was like 5 or 6 of the great big ones that...you build yourself and can fly. And again, certainly that's the thing that I'm responding to, because it is this sort of like mechanical goofy hobby object, but just seeing that and like, obviously having been through the process of...sorting through a deceased loved ones' belongings, there's only so much that one can hold on to, just logistically—or desirably. But seeing that was just like, “this is someone’s basement, and they put a lot of love into this.” And then you see this thing, that—and again, this is just me projecting a narrative, right—but when I see those things, my—my understanding is...‘this is something they did because they loved it’;...and so it was like, Wow! This is *the* thing—a thing—that defined this person outside of their working life, and it's now a dumpster going to RAIR. **Of course, now, when I pass away, God knows who’s gonna be left with the horrible physical archive of junk I've made throughout my life, so [pauses]—but in any case that was a very like poignant thing.** I didn't end up doing anything with the airplanes, I grabbed a few of them...and I still have them. But yeah, there is like—there’s so many narratives, you know? And there were other things—where, you know, this is a little dicier, but like you the excavator grabs a whole bundle of stuff, and a bunch of papers pop out, and it’s somebody’s...conviction records and court documents...and it’s just like: **‘whoa! As a society, we’re just letting this happen?’ There’s just too much stuff, right? There’s too much, too much, too much that has meaning—and we can’t care for all of it.**

After James told me about the three objects that changed his perspective on the site, he continued by describing how the pulling process was:

J: ...intimate—you know, it was a lot. So [RAIR] is a sacred space. [But] I don't know if...I can say that it's hallowed ground in that, in that religious or Biblical sense.

G: Why isn't it hallowed ground?

J: Well, I don't know. ...I mean, it could be me coming from, you know, conflation or some type of projection on how certain things, or someone's life...will be handled, right? But it makes me circle back, and it made it clear to me why I was making the work...We know

that we're not going to live forever, right? But I have hopes that the work that I make—I mean, it will live beyond me. That's absolute now, whether that be in someone's house, or in storage, or right to RAIR, right? [laughs] If it still exists, 20-30 years from now, someone's going to come across the work that I made and be like, what is this crap? But I feel that...is something that should be at least recognized for what that is, right?...I mean, it's inevitable, right? It's inevitable. If I stay within the Tri-State Area [laughs]. My stuff is going to be—all of my recor—well, not my records, because pretty sure if somebody like Billy is gonna like, huh-uh, right?! [both laugh]

Gabriel: I've seen him get excited about a box of records, yeah.

James: Yeah, me too! He immediately calls me and says, like “hey you have these? You have a copy of this?!” [both laugh] ...[But] it's something that, even through the absolutism of it, it's still something that should be celebrated.

And Martha saw not just her work, but *herself* as destined for RAIR, as she told me when discussing her process of curating objects:

M: I was surprised [pauses] I got very emotional at—at one point. I was up in the studio, and I had like boxes and boxes of photographs. And I just remember looking through all these photographs and—you know, I could see like the similarity in the father and the son, and I could see the son getting older and looking just like the father had at that point...I **remember just bursting into tears and thinking ‘this is going to be me someday.’ You know, I don’t have any kids, and my shit is just going to end up on the side of the road, and that’s just the way life is. It’s like we’re here, and we have this, you know, brief time, or maybe a long time, and then—and then we’re gone. So everything—I mean, we *are* our things. And the things that are like—that have so much value to us, that we hang on to—in the end, they’re meaningless when we die. We disappear, they disappear, it’s just like everything goes back to the dust from which we came. Yeah, that was what I was sort of feeling.**

G: yeah. A lot of dust at that site.

M: Yeah. That one time...I, like, actually cried. There were other days when I was on the verge of tears. There was this one box, that was of this woman who had died, that was so intense...**it was this woman**—there were these baby shoes. And then there was a lock of hair that had been cut from—her son’s name was Richie. So there was Richie’s baby shoes, and Richie’s lock of hair. And then there was the woman’s rosary that she had put in an envelope and left a note on it for Richie that said, ‘Dear Richie, when I die, please put these in my hands.’ Well, clearly, Richie was nowhere to be found, and all of this stuff was being thrown out. And so—this little lock, this circular lock of like blonde hair that she had hung on for—I don’t know how old Richie was when he died, or how old she was when she died, but the baby shoes were really old school...from the 60s or the 50s....**That really gutted me, you know? This idea of...someone’s best laid plans, like ‘I’m going to hang on to my son’s things, and then I’m going to...in return, he’s going to make sure that I have my rosary in my hands when I die’—and that just didn’t happen.**

Martha incorporated both of these sets of objects into *Songs of Memory and Forgetting*; she sewed the former into her memory quilts, and she passed around the latter set of objects so the audience could hold them in their own hands.

These three stories demonstrate, in poignant terms, exactly how the apparatus of picking limns the divisions between past and future, life and death, and human and non-human. The agential cuts enacted in these apparatuses powerfully refigure what is and isn't human. Their "re-cognitions" of the past also powerfully demonstrate Barad's point about memory, positively erupting into descriptions of the future. Moreover, the raw emotional vulnerability of these stories highlights how these redefinitions, like the broader apparatuses of picking and making that produce them, are highly specific to the particular intra-actants that produce them. Lewis is a self-described "tinkerer"; he spoke with me on Zoom from a machine shop, where he was supervising an automated cutting tool during our interview. The model airplane's materiality, and the sedimented marks left on their bodies by the owner who Lewis imagined as "defining himself" through his love of them, thus powerfully called to Lewis specifically, raising the specter of his sculptures ending up at Revolution Recovery. James was raised as a devout Seventh Day Adventist and began his career as a musician; when objects spoke to him, thus, he understood the intra-action in spiritual terms—and imagined his "record" collection ending up in the trash.<sup>160</sup> Martha, finally, described elsewhere in our conversation how her early experiences of suddenly losing "some really important people in my life" and having "different levels of success hanging on to their memories" shaped her work—context that seems to powerfully shape the effect the materials have on her, and her project's goal of "helping people wrap their heads around all this loss."

### Present and Absent Others

These stories, however, also highlight another important way in which these apparatuses refigure the human. Throughout this thesis, we have heard artists have told stories about the past

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<sup>160</sup> Moreover, his invocation of his work is also incredibly significant: as he described elsewhere, since "my granddad and my dad were artists," but, as Black Americans, "weren't born at a time where they could...have the privilege to be an artist and still raise their children," a key goal of his practice was to make sure that his children "have all the first of everything" he "make[s]," so "after I'm gone...[they] can say 'Wow, my dad, he really cared about this.'"

owners that they imagined when they handled particular objects, from Martha's description of her "relationship" with the Cuban-American family to Maria and Shelley's descriptions of objects as "resonant" or "dense with humanity"; in every case, even the ones not quoted here, artists told me one such story of a specific object immediately prior to their accounts of seeing their own death in the pile. This section will discuss a few more particularly vivid examples in which artists saw *care* in the pile, before turning its attention to a broader conversation about what's at stake in the practice of building relationships with other people through their objects.

Several artists framed the relationships they saw in the objects at the site as questions of care. Some saw the object's very presence at the site as manifestations of a lack of care, as with Lewis' description of how "there's just too much with meaning, and we can't care for it all"; others described feeling a sense of obligation to care for objects themselves because of their symbolism, as with Billy's description of the American flags. But sometimes, that care was much more literal and direct. Take what Nathalie told me when I asked her if she took anything she didn't use in her art:

I...took some [objects] of the person who, in my imagination, had been isolated, with this depression [described in Ch. 3]; I took her brown...cups, and two white porcelain mugs from her as well...and from the Korean [War veteran, mentioned previously in our interview], I took some of his...films...I felt a lot of sympathy for these objects of this person who I thought had been isolated. I just felt something, and I just felt like she had lost contact with people, and...**I was like a little granddaughter who kind of...took her glasses...with me. I felt like I just continued...you know, maybe she wasn't completely alone, either; but it was just continuing something that related to her. You know, I took care of those. I mean, I like them also, [laughs]...but I just felt something for them.** And then...my mother was from Vietnam, and so...some of the stuff from [the Korean War veteran] I also felt like had something to do with—and I felt like almost...because my father was a [Vietnam-era US military] deserter, and I have ancestry in Vietnam, I fel[t] like maybe it w[ould] be a way for me—I mean, sorry to sound like this horrible artist, but, you know, that's how we work—it's **just a way for me to tell my own story through someone else's story.**

When telling me this, Nathalie's voice and body language conveyed evident emotion: she really did seem to *feel* connected to the "sad person," and, through caring for her objects, she really did hope to do some good. Strikingly, though, Nathalie herself caveats her own descriptions, describing "this person who *in my imagination* had been isolated" who "maybe...wasn't completely

alone”—and, tellingly, opting not to make work with the Korean War veteran’s belongings because of its potential to be like a “revenant” for the veteran’s family. Different artists drew this line in different places.

So, what do we make of these practices? When I first thought about the question based on my reading about RAIR, before I interviewed the artists or spent time at the site, I would have said the following: it’s problematic, if not fetishistic, to claim to build relationships with people through finding their stuff in the trash—and such practices are especially fraught given the high sociocultural capital of RAIR artists and the overall poverty of Philadelphia. Now? I’m less sure; I think it’s a complex moral question without a straightforward answer. The issue does, however, demonstrate the need for a mode of establishing *accountability* for artists’ engagement with material at the site—a way of establishing and weighing their effects of apparatuses and intra-actants within them on other bodies, human or non-human, in the universe. This topic will return in the afterword—but first, the thesis must account for how Philadelphia shapes object-human relationships at RAIR.

## **CHAPTER FIVE: BUILDING RELATIONSHIPS**

### Philadelphia's Waste, Part I

Among candidates for Philly's May 16, 2023 Democratic mayoral primary, a key campaign issue has been the city's "waste crisis" of widespread illegal dumping of C&D waste.<sup>161</sup> This crisis, moreover, is but the most recent manifestation of a much older problem: in Philly, the trash has *never* disappeared quietly. Waste has been unusually central to Philadelphia's civic discourse since the colonial era, when Center City's grid was designed by William Penn to facilitate trash removal, and Benjamin Franklin's 1757 organization of waste collection represented one of the first major municipal services.<sup>162</sup> As recently as 2021, YaFaveTrashman, a Philly sanitation worker whose pandemic-era internet celebrity earned the nickname "the Beyoncé of Trash," earned an invitation to the White House to meet with President Biden, Mayor Jim Kenney, and then-gubernatorial-candidate Josh Shapiro.<sup>163</sup> The topic's prominent place in the public square, however, has not translated into effective waste management in the city's neighborhoods. Following the post-WWII deindustrialization that devastated the city's tax base, systemic corruption and underfunding have compromised America's sixth-largest city's ability to clean its public spaces, leading to the enduring moniker "FiltH-adelphia"—coined in the 1930s and still in wide use today.<sup>164</sup> The history of Philly's waste management is also suffused with the city's brutal history of anti-Black racism. For decades, municipal government systematically mistreated the city's majority-Black sanitation workforce, leading to epic garbage strikes in the summers of 1978 and 1986, where piles of trash rotted on streets for weeks. Even today, many majority-Black communities in the region suffer from

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<sup>161</sup> Murrell, "Election Recap"; "Groups Challenge Philly's next Mayor"; Russo, "How to Turn Filthadelphia Back into Philadelphia?"

<sup>162</sup> Nepa, "Pollution."

<sup>163</sup> Howard, "Inside YaFavTrashman's Meteoric Rise From Mild-Mannered Sanitation Worker to Garbage Superhero."

<sup>164</sup> Zorrilla, "Street Sweeping in Philly."

devastating health disparities as a result of incinerators and landfills placed in their residential communities—major contributors to what the Public Interest Law Center described in 2018 as some



Figure 1: A map of buildings currently receiving 10-year new construction tax abatements in Philadelphia; warmer colors indicate greater costs to the city. Note the overconcentration of high value tax abatements in Center City-adjacent portions of North and South Philly.

of the most extreme environmental racism anywhere in America.<sup>165</sup>

Philly’s trash management practices, in short, reflect the city’s broader injustices. Despite its prominent institutions and storied history, Philly has long been America’s poorest large city, with almost one fourth of residents living below the federal poverty line in 2019.<sup>166</sup> It

has also long been one of its most segregated, with a 2021 analysis finding only Chicago had a greater spatial separation between White and Black residents.<sup>167</sup> What’s more, Philly is not just poor; it is also gentrifying rapidly. In 2016, Bloomberg found that the city had the 20<sup>th</sup> highest income inequality among U.S. metros with at least 250,000 residents—but by 2018, because of an influx in wealthier residents, the same study ranked Greater Philly the 3<sup>rd</sup> most unequal city in the nation.<sup>168</sup> The following year, the National Community Reinvestment Coalition, a D.C.-based think-tank, found Philly ranked 4<sup>th</sup> in the nation for gentrification pressures—ahead even of San Francisco, Portland, and Seattle—leading to widespread decline in the city’s Black population, even as the overall population grew for the first time since the 1950 census.<sup>169</sup> This gentrification has been

<sup>165</sup> “Public Interest Law Center Testimony on Environmental Health Disparities and Environmental Racism in Philadelphia | The Public Interest Law Center”; “Facing Fines and Firings, Philadelphia’s 2,400 Striking Sanitation Workers...”; Smalarz, “Liberty County”; Sicotte, *From Workshop to Waste Magnet*.

<sup>166</sup> Shields, “The Changing Distribution of Poverty in Philadelphia.”

<sup>167</sup> Bond and Shukla, “Philly Is One of the Most Segregated Cities in America.”

<sup>168</sup> Capriglione, “Philadelphia Ranked Third Worst U.S. City for Income Inequality in Recent Report”; Foster and Lu, “Atlanta Ranks Worst in Income Inequality in the U.S.”

<sup>169</sup> Richardson, Mitchell, and Franco, “Shifting Neighborhoods.”



catalyzed by municipal support for demolition: in 2001, Philadelphia Mayor John Street launched a “blight removal” program known as the Neighborhood Transformation Initiative, or NTI, which spent most of its \$300,000,000 budget tearing down more than 7,000 buildings, mainly in low-income neighborhoods across the city.<sup>170</sup> The city government also directly demolished buildings outside of NTI—on average, over 500 buildings a year between 2008 and 2019—and the quasi-municipal

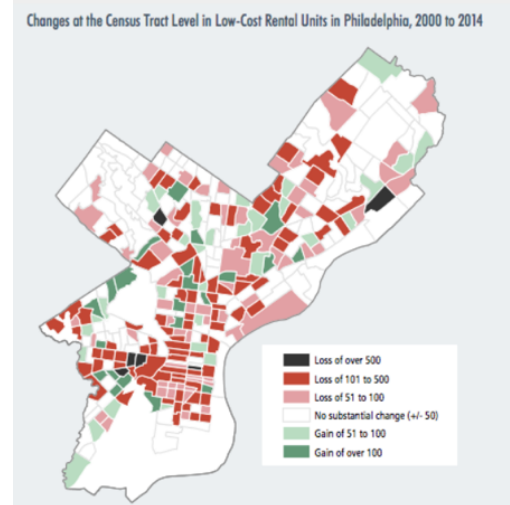


Figure 2: Net change in number of affordable rental units between 2000 and 2014 by Philly census tract, per the Philadelphia branch of the Federal Reserve (Blumgard, 2016).

Philadelphia Housing Authority leveraged federal public housing dollars to conduct its own demolition program.<sup>171</sup> Meanwhile, private demolition expanded even more rapidly, facilitated by the city’s notably loose demolition regulations—and its ten year property tax abatement for new construction, a subsidy to developers that incentivized demolition over rehabilitation, at an annual cost to the city and its school district of over \$162 million.<sup>172</sup> These demolition practices led to record construction, and a record decrease in the city’s affordable housing stock.<sup>173</sup> And they

<sup>170</sup> Moselle, “15 Years Later, Appraising \$300 Million Effort to Transform Philly Neighborhoods.”

<sup>171</sup> “HOPE VI Program.”

<sup>172</sup> Briggs, “Philadelphia’s Building Boom Spawned a Demolition Boom in 2019”; Kerkstra, “Philly Has Loose Demolition Regs, But So Do Most Cities”; McCrystal, “\$29.6 Billion of Philly Real Estate Is Exempt from Property Taxes. Should Nonprofits Be Asked to Pay Up?” The ten-year tax abatement endured for decades in the space of sustained, intense advocacy, with one prominent organization issuing reports, itemized by Council district, itemizing the amenities (and lost tax revenue) associated with each luxury condo development and juxtaposing them with photos of collapsed roofs and statistics about unabated lead and asbestos in nearby public schools. In 2020, the Philly City Council finally bowed to this sustained pressure, reducing the value of the ten-year tax abatement—though, notably, neither reducing its value for existing developments nor eliminating it entirely—and pledging the resulting revenue to a “neighborhood preservation initiative”. However, demolition friendly policies have continued. In Summer 2022, City Council unanimously enacted a new real-estate transfer tax, the proceeds of which were earmarked for demolitions in “blighted” areas “for the purposes of increasing economic development.” Haas, “Urban Renewal Redux?”; Walsh, “Philly Is Set to Create a New Construction Tax and Delay Changes to Its Big Real Estate Tax Break.”

<sup>173</sup> “Philadelphia’s Disappearing Low-Cost Rental Housing Revealed in Fed Gentrification Study”; “Philly Set a Record for Construction in 2019 — Thanks to These Gentrifying Areas.”

generated substantial waste; by 2014, the City was generating more 400,000 tons of C&D waste annually, a more than four-fold increase over five years prior.<sup>174</sup>

Six days a week, from 6AM to 5:30PM, a parade of trucks converges on Milnor Street and deposits, on average, six hundred tons of material.<sup>175</sup> Along with the city's garbage, these trucks carry Philadelphia's long, fraught history with waste management, and, in the C&D stream, the material residua of the changing city. As Martha succinctly put it, "looking at the all the C&D waste up there, I just thought to myself, 'yup, these are all of those new condos that are getting built!'"

The previous chapter explored how the apparatuses of pulling and making through which RAIR artists engage with material entail boundary redefinitions. In this chapter, I will turn my attention to the *effects* these apparatuses and reconfigurations have in the world—which, as Barad describes, take place in relationships. Artist-object intra-actions at RAIR remap the city of Philadelphia, resituate it in broader cosmopolitan landscapes, and reshape human-human relationships. Like all Baradian apparatuses, however, these remakings necessarily enact constitutive exclusions, so this chapter will also track what is left out in these urban transformations. I will begin by exploring the material connections between artists' practices and Philadelphia, then examine how these apparatuses reshape the city's spatial fabric. Next, I will consider how artists describe their personal and professional relationships to Philadelphia and discuss their ambivalence situating their work in the city's context, and then follow with their unequivocal accounts of how their practices reshape their relationships with other people. I will conclude by discussing such "human-object-

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<sup>174</sup> "Filthy Rich." I was unable to obtain more recent data for C&D waste volumes in the Philly area. (Trends in C&D waste volumes and compositions are notoriously difficult to track, because it is not regulated at the federal level, there exist no standardized formats in which to report data about on the subject, and what data does exist tends to be proprietary. Marcellus-Zamora, Gallagher, and Spatari, "Can Public Construction and Demolition Data Describe Trends in Building Material Recycling?")

<sup>175</sup> Esposito, "Revolution Recovery Leaders Discuss Where the Market for Recycling Used Building Materials Has Been— and Where They Hope It's Headed."

human” relationships enacted at RAIR, which both produce a specifically Philadelphian artistic subjectivity and remake the city’s broader art world.

### Philadelphia’s Waste, Part II

Nathalie and Anamaya’s practice at RAIR was deeply collaborative. From planning and surveying waste to pulling and making, the two artists described working together on every step of creating *This Mantled*. Strikingly, however, when I asked them how the work engaged with the context of the city, the two artists offered radically different answers. Nathalie told me that, since *This Mantled*’s “two major themes” of “abortion and gun violence” responded to contemporaneous Supreme Court cases, the work’s questions were “more general to America” and dealt “more [with] a particular *time*” than with Philly. When I asked Anamaya the same question, though, she said:

A lot of the *play* in my artwork is very much—like, part of Philadelphia is...the way that people occupy space in the street and...how people talk, and like, how everybody calls you baby... We say hi to each other; it’s kind of like a small town, but it’s not. I mean, it depends on the neighborhood, once again. I’ve never...lived in Fishtown<sup>176</sup>...that part of the city, you know, is *whatever* to me...it’s not my favorite part. But...I’ve spent a lot of time in Olde Kensington; like Fifth and Cecil B., and on Thompson...and that feels closer because of, like, the Latina community, and being a bilingual person...it’s just places that you feel, or I feel, comfortable. But I think that a lot of...that tenderness, and a lot of the communicative parts of Philadelphia, are really important in my artwork!...And I think that the things are always a portrait of the place, especially in that weaving. I mean, those things came from there, and although...like, if I were to go back, I would love to do one that is really based on things in relationship to each other. **But, yeah, I think that the...things themselves are such great portraits of the city. And what trash is, is also a great portrait of...a place:...what gets thrown away.**

On one level, Anamaya’s description of trash as a “portrait of a place” sounds deeply resonant with discard studies perspectives. Using such a reading as the limit of our analysis, though, ignores not only the activity of the waste seen throughout this thesis (and, recall, that Anamaya herself unequivocally pointed out, saying “the object is the storyteller!”)—it also overlooks the striking contrast between Anamaya and Nathalie’s accounts of their shared project’s meaning. In the contrast between the two artists’ perspectives on the city, we see how such engagements are

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<sup>176</sup> A former industrial area that by the mid 2010s became Philly’s primary trendy “hipster” neighborhood.

apparatuses: specific, changeable, material-discursive engagements with the world. This contrast, moreover, reflects their specific connections and engagement with the context of Philadelphia. For Anamaya, Philly was a differentiated “home” made up of many neighborhoods. Nathalie, meanwhile, saw Philly as a monolithic foreign place, telling me she at first struggled “to remember” that the Northeast within which RAIR was situated made up “just one section” of the larger city. The trash can be a portrait of a place, as Anamaya (and Rathje and Reno and their colleagues) would have it—but this is just one of many possible materializations.

Anamaya’s account introduces several of this chapter’s major themes, including the artists’ personal connections to the city, their perspectives on its role in their work, and their collaborations with other artists. Immediately relevant, though, is how Anamaya’s description also highlights an important dimension of the waste at RAIR: its inherent, inexorable, *material* connection to the city. Everything that comes through the site is specifically *Philadelphia’s* trash—the waste itself is inevitably marked by the entangled urban assemblages of people and things from which it comes. Barad rightly points out that “embodiment is a matter not of being specifically situated in the world, but rather of being *of the world* in its dynamic specificity.”<sup>177</sup> In an important materialist sense, therefore, Revolution Recovery’s waste stream is *of Philadelphia*, in a way that transcends mediated signification or contingent materializations. Anamaya, moreover, was not the only artist to note this. Listen to James describe why, though it isn’t his work’s explicit focus, he still thinks broadly about his practice’s “engagement...with the city of Philadelphia”:

The work comes from [pauses] the streets of Philadelphia, right...so it [has] that...stamp...of approval or disapproval. You know, SEPTA was digging up the [trolley] tracks...and they left like 2 big wooden pieces, underneath the ground, smelling like petrol—I mean, this [was] really dangerous. [both laugh]. *Should I really* be touching this!? But—it *is* Philadelphia, right? And there are going to be pieces. And people who happen to jump into, or see something, right, that they will recognize, [and it will] speak directly to them. But it's something that I'm not forcing.

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<sup>177</sup> Barad, *Meeting the Universe Halfway*, 377.

Philly, in short, is always there when working with the waste stream. In a real, material way, the city is always present, whether the people who view the artists' work—or even the artists themselves—“recognize” it. I will expand on this point over the course of the chapter.

The city's presence in the artists' practices, however, was not limited to the trash itself.

Throughout our conversation, Ang tended to speak in measured, deliberate tones, but when I asked her how it felt to make work in a city she had been to “maybe once” before, she became animated, telling me rapidly and with evident emotion:

A: I think I was...the first resident who wasn't based in Philly. It's the first year they opened it to outside applicants....And so, the feeling I got was that people who had been to the site before had very established practices in the city, they had social lives in the city, and they would kind of leave and come in and work and go home—whereas I had nowhere else to be!...[A]t the time there wasn't housing as a part of the program, so...I had to figure out where I wanted to be, and I had a friend who had an apartment that was empty and that I ended up renting in Rittenhouse Square.<sup>178</sup> So that was a *real experience*: going from that neighborhood [laughs] to Tacony every single day. I also don't drive: I didn't grow up in the US, and I grew up in cities with public transportation and immigrant parents, and I never learned to drive. So even just figuring out how to get around the city was a real experience, and then coming home every night covered in grime, and [in] work clothes, and walking through this neighborhood, and having people look at you [laughs] was...very interesting! [both laugh]

...G: How did you get to and from the site without a car?

A: I would take the train! I would take the train to whatever the train station is called, and then I would just walk from there. It's like a 10 minute walk on the side of the road to the site...

In short, Ang's description shows how her journey home—the 0.9-mile-long-walk on a sidewalk-less road, past the used car lots and scrap metal dealers of Tacony's industrial strip; the swooping route her commuter train took, along tracks laid in the 19<sup>th</sup> century by the Pennsylvania Railroad, through some of the

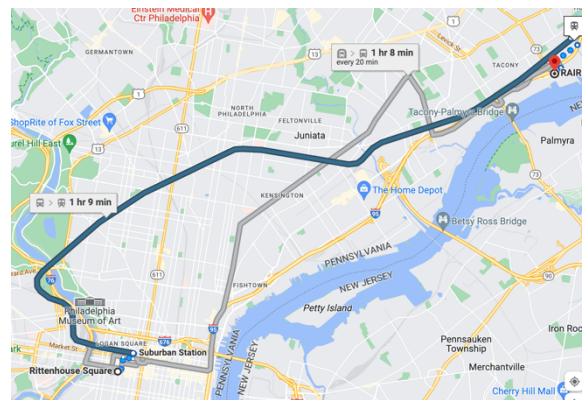


Figure 3: Ang's journey home (highlighted in blue), visualized using the “transit directions” function in Google Maps.

<sup>178</sup> Rittenhouse Square is an area of Center City that is one of the wealthiest urban neighborhoods in the United States. It is primarily comprised of stately pre-war high-rises, which house expensive shops and restaurants at street level and an overwhelmingly white population in the apartments above. “Rittenhouse Square, Philadelphia, PA.”

city's wealthiest neighborhoods and some of its poorest, and the "looks" that she would get as a non-white woman returning to Rittenhouse Square in the evenings in "grime"-covered work clothes—powerfully shaped her experience of producing work at RAIR. In their summary of Lefebvre's critical geography, Barad writes that "space is not a given, but rather...space and society are mutually constituted and...space is an agent of change that...plays an active role in the unfolding of events."<sup>179</sup> Following Harvey and Haraway, Barad then argues for extending this formulation to attend to "material-social practices, such as racialization and gendered sexualization"; the question is not just the effect of space, it's the simultaneous, "dynamic[,] and contingent materialization of space, time, and bodies."<sup>180</sup> This, then, is another sense in which Philly inevitably shapes the artists' practices. Since space is an "agent of change" that participates in the materialization of bodies, of course Philly marks the projects they make within it—for after all, at least in part and for a time, the artists' bodies are *of* the city, not just situated within it.

### Remapping the City

More importantly, however, recognizing the intra-active co-constitution of space, time, and bodies also forces us to attend to how artists' practices remap the city. Chapter 4 discussed how apparatuses simultaneously "re(con)figure" spatiality and temporality, but, for the purposes of analytical clarity, focused only on the temporal dimensions of those transformations.<sup>181</sup> In this section, I will return to the spatial implications of those boundary reworkings that I set aside earlier. When I asked Billy how his decade of pulling waste in Revolution Recovery's yard had changed his broader practices of making, he outlined how:

[Y]ou can call it learning how to look...or learning to see. Because I don't think it's just, like, identifying the thing in a landscape of noise; that is part of it, there's the literal learning how to see. But I think it's also the tracing things, and seeing how they're coming from different places, and how they are...in my mind, it's this really complex, like, entropic spaghetti plate,

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<sup>179</sup> Barad, *Meeting the Universe Halfway*, 224.

<sup>180</sup> Ibid.

<sup>181</sup> Barad, *Meeting the Universe Halfway*, 180.

and at the end of the plate, there's the spout, and that's where all of the spaghetti is going, and then it opens back up again—and that's just...the artistic, ...metaphorical visual on it—but being at that skinny part, and being able to see both ends:...[on one] end is the built environment and everything outside...[that, on the other] is either buried in the landfill, or somehow reconstituted and put back into the economy or into the work. And that, for me, is just really...a privilege.

Billy's vivid metaphor of the site as an “entropic spaghetti spout” not only powerfully reinforces the previous section's point about the material inseparability of the waste and its city; it also highlights the spatial *implications* of the site's work. RAIR's director describes how his experiences engaging with the objects at the site have powerfully changed his perspective on space; after a decade at the site, his vision is attuned to “trac[ing]” the geographies that connect to both sides of the “skinny part” on Milnor Street. The objects are also indelibly marked by the journeys that Billy describes (and that I traced at the beginning of the chapter), just as they are re-shaped by the intra-actions at the site. Later in our conversation, Billy described how “when you think about the vast geography of where all this stuff comes from, and how it is being funneled into this...I think some of that is part of that magic”—the supernatural, “cosmic fucking energy” that he attributed to the objects in Chapter 4.

Moreover, Billy's metaphor also makes clear how these journeys and intra-actions also refigure the spaces on both sides of the “skinny part.” Because, to Barad, “space, time, and matter are mutually constituted through the dynamics of iterative intra-activity,” just as “time has a history,” so too is “space...not a collection of preexisting points set out in a fixed geometry, a container...for matter to inhabit.” Instead, since “the boundaries that [intra-actions] enac[t] are not abstract delineations but specific material demarcations not *in* space but *of* space,” spatiality is then “an ongoing process of the material (re)configuring of boundaries—an iterative (re)structuring of spatial relations.”<sup>182</sup> Through re-working materialities, places, and pasts, in short, intra-active apparatuses remap the geographies of what is possible in the future. For James, these connected re-workings

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<sup>182</sup> Barad, 180–81.

represent the most important aspect of what happens on Milnor Street: in describing why he thought his work with past objects at RAIR was “rich,” he outlined his aspiration to:

...give respect to what did exist, right? Going not just to the spirits of RAIR, but...Philadelphia, right? Yeah. The history of it, and, in a broader sense...RAIR in the community, and what they're doing. [They're] this middle ground,...this in between, right? What has happened in the past comes to this place to have some type of future, whatever it exist[ed as, before], or whatever it becomes. And that's how I look at it, and that's an amazing thing. I don't know if folks really look at it as that, right, because it's a business. But: hey. It's—it's a serious service.

Yet again, James' (and Billy's) supernatural language makes clear the more-than-human power of both the objects and the apparatuses to which they contribute. Not only do practices at RAIR and Revolution Recovery rework Philadelphia's past—they (re)shape its map and (re)configure the space of possibilities for its *future*.

And, as I suggested at the beginning of the chapter, given the context of demolition and redevelopment, Revolution Recovery's stream of home cleanouts and C&D waste thus also reflects Philly's geographies of gentrification and displacement. As James put it when discussing RAIR's work more broadly, “because of the materials and [the change that] is happening and what RAIR is doing,” the site is “*automatically* in conversation with the community, because we're dealing with what—what expires in the community, and the growth of the community, and the change in the community, right?” Anamaya put it in even more pointed terms. In Chapter 3, I quoted her description of how certain objects “survived” the dump; when I asked her what she meant by “survive,” she told me about feeling “amazed” that things “made it” and “transcended the dump,” in spite of the “forces,” metaphorical and literal, stacked against them:

Like the force of being dumped out of one of those trucks...it's amazing, the force! Just for me, I guess, when you think about Philadelphia, you think about...the replacement of materials that have been around for hundreds of years...bullshit MDF!<sup>183</sup> And it's just...this very fast architecture...but...they're not made to survive, you know? ...In the trash, I saw so much of this...gentrification in the city...you see it in a material way, you see this

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<sup>183</sup> Medium-density fiberboard: an inexpensive synthetic wood product common in new construction—and is partially responsible for the distinctive appearance of the mid-rise condos and re-built rowhomes that are particularly characteristic of redevelopment in Philly.



displacement of things, and...you see the replacement of people, you know, and types of people.

Later in our conversation, Anamaya elaborated on how:

I feel like Philadelphia is also going through this crisis of...*change in materials*. The materials...that Philadelphia was based off of were [from] the turn of the century; everything was massive, there was a lot of money, there [was] also this huge growth. But there are things that were really built in a way that [was]...made to stand the test of time. And I think that there's this huge foresightedness in the way things are being built now, I think, in Philadelphia—you see it, especially with the developers from New York—it's just so much turnover, and it's so fast. There isn't the time to—to not only, like, *recycle*, but to even to reconsider what you're tearing down, and why you're tearing it down, you know?...And it's just upsetting to see how that process of [pauses] extraction, or of just *taking*, hasn't—hasn't been reflected upon.

Lewis put it even more directly: when discussing the processes of “development and gentrification” and the injustices they enact, he reflected on how, when working in the RAIR waste stream,

if you make something with this stuff, it does have that significance! It participates in those narratives. Having lived in the same house for...10 years now...our neighborhood has changed a whole lot around us...it had one of the biggest changes in average income level out of the last 10 years or something...[and] as an artist, unfortunately, we are often, like, the shop troops of gentrification! In the sense of, like, buy[ing] an old tumble down house, [and] fix[ing] it up!...So I'm very aware that I'm complicit in all of this *stuff*—in the way the city is changing in its own way...it's in my mind as I'm making the work, and I'm pulling from what's available to me, and putting it together in ways that hopefully tell some sort of hypothetical story about where we are and, you know, where we might end up! [laughs]

(Lewis was not the only artist to feel this way: several others articulated similar perspectives.) While telling me this, Lewis spoke slowly, repeatedly crossing and uncrossing his arms across his chest and rocking back and forth in his chair. His body language, in short, seemed to indicate discomfort, just as, as discussed in the previous chapter, artists appeared uncomfortable when discussing the ethical dimensions of building “relationships” through found objects. In both types of conversations, I think my interlocutors seemed uncomfortable because they were raising questions of how their practices affected other people in the world—questions, fundamentally, of *accountability*. I will return to these in the afterword; in the meantime, the chapter will turn its attention to artists' own understandings of their connections to Philadelphia, both in their own lives and in their work.

### The Present/Absent City

Although some artists offered different perspectives, most of my interlocutors cared deeply about Philly, which they saw as situating and shaping their practice at RAIR—but most also told me that the city was not central to the questions that motivated their projects.

I asked every artist to tell me about their connections to Philadelphia prior to coming to RAIR; the responses ranged from Shelley, who grew up in a Northeast neighborhood close to Tacony and had spent almost her entire life in the city, to Nathalie, who not only had never been to Philly, but also told me that her time RAIR taught her just how little she understood the US. (In Appendix I, I have compiled a summary of each resident's connections to Philly; the reader may find this helpful to refer to in contextualizing perspectives articulated in this section.) Overall, though, most of the artists with whom I spoke lived in Philly at the time of their residency (all but Ang and Nathalie); of those ten, seven had lived there for more than five years (all but Olivia, Narendra, and Eugenio), and, other than Olivia, all described caring deeply for the city. When I asked the artists who lived in Philly how the city had changed in the time they had lived there, all ten referenced gentrification and displacement, which all ten found deeply concerning. Most also discussed the city's changing built environment, which they saw as contributing to the problems of gentrification and ensuing displacement; four even made specific reference to the ten-year tax abatement, a feature of the municipal tax code that preferences demolitions over renovations of existing buildings.

When I asked artists how they saw the city as shaping their work, however, several told me that the city's context shaped their work—but apart from Anamaya, every single artist I asked told me that their pieces were not *about* Philly.<sup>184</sup> For instance, consider Lewis' response to that question: “Yeah! That's a good question, because place—well, people do pay attention to it, but I think that

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<sup>184</sup> I asked this question of everyone except James (because of time constraints) and Billy (because the portion of our conversation about Philadelphia focused more on his work administering RAIR than his artistic practice).

place really does inflect a lot of people's work in ways that they don't necessarily realize, right," before telling me a long story about his *personal* connections to the city. Yet when discussing the legacy of redlining and his own guilt about being "complicit" in gentrification in the context of a piece he made out of old signs advertising FHA mortgages, Lewis made sure to disclaim that "I'm not saying that all that stuff made it into the work." At most, he elaborated, "like any of these things," the works "are like a nexus of all those different narratives and forces," but no more than that. Similarly, Maria, an area native, described loving Philly ("it's definitely *my* city"), which she saw as central to much of her work. She described her art in general as "based in Philadelphia's post-industrial, slightly apocalyptic environment"—a dynamic she "felt...10 times as much at RAIR." Later in our conversation, though, when I asked her more specifically if the city shaped her work at the site, she told me:

I don't know if it really—if that really shaped the work of this particular project that much. I think there are definitely other projects that could be done that really could, you know, work within that conceit? Of how does, you know, a place like RAIR—like, you know? I mean, I mean, the thing for me was more—it wasn't really about the work, but it was just interesting to me because I was working in Tacony at the time, so you know, I know a lot about the history of the waterfront there, and, you know, where RAIR sits in that sort of continuum of industry and less industry, etc...and Billy Penn [the iconic bronze statue atop City Hall] was built right down the street, and all of those historical contexts that I think just makes RAIR an even more resonant place, you know, if you're if you're aware of that. Yeah. But in terms of *One Last Time*, that didn't really enter into that.

Martha, Shelley, Narendra, Olivia, Anamaya, and Nathalie also responded to questions about how Philly shaped their work by telling me about hypothetical projects they *could* have completed, or works other artists had made at RAIR, or works they themselves had produced at other points in their careers.

Some artists were unequivocal: their work did not consider the city, but rather broader spatial frontiers. When I asked Ang if *Balancing Act* engaged with Philly, she flatly told me "it wasn't site specific to Philadelphia...and that wasn't the intention...the landscape it engaged with was a kind of C&D waste management industry more generally." Since EPS is a "universally standardized

thing,” Ang continued, it was “interesting to” be “sourcing material from a specific city, but making work that could really speak to anywhere.” Narendra outlined a similar perspective on his own EPS-focused project, if in less categorical terms. Though “obviously, I’m taking things from my environment, and those things become incorporated...in the work,” he said, “I think they’re applicable to everywhere, the same way...Styrofoam is everywhere.” More commonly, though, artists responded to the question of how Philly shaped their work by describing how the city was not relevant to their projects’ aesthetic or critical objectives. When I pressed her on whether her work was site specific, Nathalie told me:

I guess that you could have worked on a more—I do think, it’s more for *me*, general than specific. But I do think you could have worked more specific[ally], in the sense that if we had concentrated on one topic, let's say, gentrification, for instance. You could have worked with more items that would bear...the function of the portrait...and really be...the debris *of the city*. Whereas ours mixed personal stories, educational settings, and, you know, it's all over the place...It always kind of worked for me that [the project] had more bearance than just being particular. That it actually kind of spoke to a more universal level—for *me*.

Nathalie is thus making a point about the *complementarity* of pulling and making. Though some of the same objects she selected could “be the debris of the city” in a different configuration, their particular deployment in her project left those properties indeterminate in favor of others. Similarly, for Olivia, though urban issues like gentrification and displacement “gave me context for thinking for my work,” those were not the frameworks she used to understand the objects in the project itself. Rather, she told me her work’s “only goal” was to “experiment and play around” and produce “something that was interesting, like, formally” in a conversation “within the arts, or the video world.”

These perspectives, then, represent another form of spatial transformation. Though, physically, their practices were deeply embedded in Philadelphia, the “worlds” with which they engage through practice with the objects are far more cosmopolitan. Tellingly, three artists mentioned Chicago, two discussed Boston, and no fewer than *eight* brought up New York City in

our conversations about their practice. The next section will turn its attention to one last space that was remade by the intra-actions between artists and objects: RAIR itself.

### Relationships, Part I: Collaboration

The apparatuses of making and pulling were also deeply enmeshed in relationships between people on the site. Perhaps unsurprisingly, at least at this point in our Baradian reading, this was not a unidirectional process: artist-object intra-actions were profoundly shaped by artists' relationships to other people on site, and those intra-actions (re)constituted those relationships in powerful ways. Nathalie, who described her project as “a portrait of” her “collaboration” with Anamaya, also told me she would have loved to invite people from the neighborhood to pull objects from the waste stream; since “our whole project is based on the idea that what we are drawn to is reflective of our position in society,” she would have “learn[ed] a lot about the site” and about the guests “just in hearing different people's stories around the things.” Anamaya also outlined the perspective that practices of intra-acting with objects could both reflect and build human-human relationships, describing the deeply caring way that, on days when Nathalie felt less comfortable pulling, “I really would try to...internalize what Nathalie [would] say about things, and I would pull things for her—I mean, you know, ‘you were talking about this, I saw this, maybe this makes sense to you.’” Anamaya also recounted how getting to “know” Nathalie’s “cosmology of things” was “very powerful” in their broader friendship. Or consider Eugenio’s description of the process of designing, building, and operating his first *fogón*:

I invited a chef, Dionisio Jiménez...who provided input on the structural aspects and the dimensions of the *fogón*, based on his experience being a chef. So the idea with *Fogones* was to capture input from different stakeholders in the food chain and then share those ideas through oral history, as opposed to making blueprints and making—the western style of disseminating information...thinking about like, indigenous ways in which history is passed on from the backgrounds that we come from. So I took the information that like, from Dionisio, and I met up with laborers from Revolution Recovery, and we had a very, like, casual meeting; we talk[ed] about the *fogón*, we talked about the dimensions. I made a drawing, but...it was something very loose, it was more about—letting people’s ideas resonate on their own...So we had—like, Dionisio provided some ideas, and then the guys

who performed the sculpture, they also had some ideas...it was pretty cool, that like, all this communication that happened was very informal, and [the Revolution Recovery workers] added things—like the chain so that when you lift the griddle it doesn't go all the way, they put the chain inside so it looks nicer! ...So anyway, we made the first *fogón*, and then we tested with Dionisio. And then Dionisio provided more feedback back, and then we sent it back to the guys and said “oh, this is great, but can we do this,” and then...for...the culmination...we [had] a private event with the laborers. So it was a performance that had to be weaved into the activities and day-to-day routines of the laborers without interrupting it. So we only had half an hour to set up a performance, it was framed as a party, as a lunch; ...Through conversations with the laborers, I found out that Zulma is the wife of one of them, and she makes pupusas! So I talked to her, and she was on board, and we ended up having multiple connections because she's also a community organizer, so there were so many people we know in common!...the most important thing was to create something that...didn't feel forced, or like people were put [on the] spot to perform...And at the end, it was really sweet, and more than sweet, it was—it was kind of magical to be getting inside of the—the workshop. Because it felt like being in Latin America, by seeing the image of Zulma making the pupusas on the griddle, in the environment that is very precarious—like full of hard tires, like in very precarious conditions. And it's something, it's a landscape that...all of us grew up with. So it was just like, very cozy.

For Eugenio, the process of making and performing was, in short, about “building relationships,” not just stoves—and the artist's account also demonstrates how object and spaces intra-actively participated in the processes of building these relationships. Maria articulated a similar point, describing how the “most important impact” she hoped *One Last Time* would have was intrinsic to “the process of... creating it”: “the interpersonal...ability to sit down and have these conversations with people...the most important thing was the experience of *doing*...it doesn't need to...hang on the wall forever to have...played out its artistic cycle.”

My interlocutors also described their work as deeply shaped by collaborations with RAIR staff, including Fern, Lucia, and, especially Billy. Every artist I spoke with, in fact, emphasized how crucially their collaborations with Billy and other artists shaped their work at RAIR; four artists even likened the degree of collaboration to something they had not experienced since their studio work in grad school. Ang described how, when she and Billy were being “interviewed for an architecture journal,” they had “come up with this term spirit guides:...it's like [Billy and Lucia are] your spirit guides in this very unknown world; they're not actively creating the work, or shaping your creative practice—we all come in with our own set of preconceptions—but they shape the way that you see

this landscape.” Other artists made clear how this support went beyond site logistics. For Martha, for instance, her collaborations with Billy had a lasting impact on her practice. She told me how:

I started making original music with Billy, and...it was just: such an amazing experience for me, and I was sooooo out of my comfort zone...In the first...three weeks there, every night I'd come home and I'd be like [screws up face] “oh my god, it's so dirty there!” And Alex—my husband—would be like, “it's a dump. It's gonna be dirty.” And I also just felt kind of overwhelmed, because there...was so much material. And Billy was just...so helpful. We decided immediately that we were going to collaborate on the music, and it was going to be something where we took people through, and then he really helped me to keep my focus. Because it's a really easy place to be like “oh, and then there's that, and then there's that, and then there's that!”...And then [after RAIR], my work started going in this sort of totally other direction, and I started getting much, much more involved in composing.

We see in Martha's description the many levels on which Billy collaborated with her work: not only helping her navigate site logistics, but also on both creative and personal levels (cowriting the music and helping her “stay focused” and feel less “out of” her “comfort zone”), and in helping her navigate how to intra-act with the overwhelming quantity of objects.

Billy, for his part, also saw his practices with objects as deeply connected to his relationships with other people. Beyond the process of collecting, even its results, for Billy, have the potential to spark relationships. When discussing the shelves of curios that line RAIR's office, he told me:

I don't really think that any of this shit is going to be in my art.... But I think **it keeps me company**, [laughs] and I think it also—I've watched other people time and time again engage and be curious about, or time travel and reflect upon, and there is—...that amazing ability to **elicit emotion, and intrigue, and [pauses] just the simple way that I've seen that happen by people just literally coming into this office and sitting in the seat and looking around. There's something magical about that.**

Billy's practice of collecting, in short, helps him build connections: both with the objects themselves and, by taking advantage of the objects' “magical,” more-than-human power, with other people.

Moreover, as Billy describes, “thinking about the context of the system in which this is happening in a site like RAIR is much different than the romantic artist's studio, and I think that—that inherently will influence or ooze its way into some kind of grit or...transference of something into the object and into the story of whatever it is that you're making with it...the context that you're building in and around it to tell a story, or to express some kind of creative thought.” On Milnor Street, grit is everywhere, in the artistic community and in thick clouds of concrete dust alike.

Relationships, Part II: Artists in the City

The relationships built between objects and multiple groups of humans on Milnor Street, however, have broader implications: they both reflect and reconstitute a larger, Philadelphia-specific arts community. The importance of this broader community was another point stressed by many of my interlocutors. Take Shelley, for instance. When I asked about how the city shapes her work, she said:

S: I love Philadelphia. I've always really liked it, and I like [how]...the art community here is extremely generous and supportive of each other. [The] cost of living has gotten more here, [but] for a really long time, and even now, you could have a practice here—and I think that were I to have moved to New York in my earlier career, there's a really good chance that I wouldn't have been able to survive as an artist. So I think Philly...makes it feasible to have a career. There's a zillion art schools here, and there's a lot of artists....Even though I'm not, like, *super* social, in that I'm not a person that *goes* to a gazillion openings, or is always hanging out with artists, having a supportive community is something that—like, Billy, I don't see him all the time, but it's like, we're—[pauses]

G: It's a really meaningful connection.

S: Yeah!...It's [also] not as...competitive as some other places, like New York. It's more like 'home team': like, '...Hey, you got that grant—that's great!'—even though people were competing for it! So I think that the way that Philly impacts me is it's part of the reason I think I'm such a long-term practicing artist.

Shelley's comments about the “generous and supportive” nature of the Philly arts community were echoed by many other artists' descriptions of what it felt like to work at RAIR—and, additionally, resonate deeply with my own fieldwork experiences in that community. Throughout my interviews and participant observation, I was consistently struck by the kindness and generosity of the people I met. Billy works 60-70-hour weeks, and his time is probably the most significant constraint on RAIR's institutional capacity—but he spent countless hours helping me throughout 2022 and connected me with over a dozen of the accomplished, respected, busy artists who make up his site's most valuable resource. Probably largely because of Billy's introduction, almost everyone I contacted was willing to speak with me. When we connected, not only were the artists very generous with their time, almost all were far more candid than I had expected, entrusting me with personal stories and unfiltered ideas. Small details throughout these conversations, moreover, implicitly demonstrated the importance of these informal art-community ties to my interlocutors' practice. Almost all the artists



first found out about RAIR through word of mouth, as noted previously; several, artists responded to one of my questions by asking me if I was interviewing one of their friends who had also done a RAIR residency, because they thought I would be very interested in their project; in one of my conversations following an interview, one artist even told me that they had been talking to two of my other interlocutors about the interview. In so many words, the generosity Shelley describes here made this project possible.

Other artists, moreover, not only echoed Shelley's perspective that the site participated in a specifically *generous* Philly arts community; they also outlined how that community had a distinctive focus—and how RAIR artist's practices with materials contributed to that community. Even Ang, with her minimal connections to Philly, saw its arts scene as special: after outlining precisely why *Balancing Act* was “not site specific,” she clarified:

That being said, I did spend a lot of time with the artists on site, and by extension the larger arts community in Philly...and the thing that was amazing to me was how much...this level of environmental thinking was, like, *embedded* in all of their work. And it wasn't clear to me whether this was Philly-wide, or it just happened to be this particular group of people that I was meeting through [RAIR], but...it's just not something I see here in Boston. The kind of arts community there was something that was really special to be a part of for a while.

Note especially how Ang emphasizes the *physical* embodiment of this practice. Tellingly, Narendra echoed this perspective, despite having a very different relationship to the city: a key factor in his relocation from New York, he told me, was the fact that “there's a pretty substantial...ecologically oriented community [in Philly] that RAIR supports.” Later in the conversation, he elaborated on the support provided by RAIR: the site is important because:

[RAIR] is boots on the ground...because it's dealing with waste and recycling...and giving access to artists who can think about these things and create works that provoke other people to think about them...I think it's bringing a lot of interesting artists to the city, even if temporarily. And I think it's supporting artists who are interested in these things with an institution...that they can associate themselves with, and gather in and around. I mean, that was one of my more selfish motivations for doing the workshops at RAIR: I want to tap into this community, I want to...get to know people who are interested in the same things—and RAIR already has that, so all I had to do was do it at RAIR and those people would come.

The community that Narendra feels he could tap into, moreover, is not just comprised of residents, nor is it exclusively focused on the environment. In a conversation about changes in Philadelphia, Lewis told me how:

The beauty of a residency like RAIR...is that their function is to give creative people *access* to this thing—and, as you well know, the debris of a place, or a culture, is a *hugely* loaded signifier, right? And...well, the really cool thing about RAIR...is that increasingly there's a lot of opportunities for artists to do something big and short-term...someplace in the city—like 'let's have a pop-up—something,' right? And...bless them, because they will really work with people, and if you say 'hey, I have this opportunity, [but] I need...a bunch of 2x4s,' ...and they'll provide material. Jean Shin's piece at Cherry Street Pier, for instance: a lot of things she ended up working with were salvaged from RAIR. And she didn't even do the residency! She's just an artist that Philadelphia Contemporary hooked up with RAIR. So it's kind of this supercharger in a great way, where it's like, okay, we can get you a bunch of this stuff—or give you...another scale of opportunity through our access to what is free and coming through the waste stream. And of course those [broader changes in the city] do shape that work. You would hope that the artist is sensitive to it and brings some of that kind of conversation into the work.

Lewis's description of the site as a “supercharger” perhaps encapsulates this perspective better than any other formulation. RAIR empowers artists, helping forge a cohesive community out of what might otherwise be an atomized group with common interests, by leveraging its ability to facilitate artist-object intra-actions.

This, then, is an important way that RAIR remakes Philadelphia. RAIR catalyzes and supports a particular flavor of a specifically *Philadelphian* artistic world, and it orients it towards “the hugely loaded...debris of a place,” interpreted through frameworks of environmental impact and urban tragedy. These effects on the art world, in an important sense, constitute a mode of remaking the city—they help attract a new set of residents, and they change the experience of living in the city for a group that is already present. Combined with the “prestige-building” discussed in the introduction, these effects also represent an important mode in which RAIR's work helps “put Philly on the map” for a broader fine arts/environmental community, both by helping establish Philly as a center of such work and through shaping the work that takes place within the city on such topics. Moreover, since most RAIR residents are based in Philadelphia, not just their participatory/social practice projects, but even their gallery/sculptural work engages (portions of)

the city's population (even setting aside the work of local artists for whom RAIR sources materials, as with Lewis' example of Jean Shin's Cherry Street Pier installation); Narendra's *Field of Preflection*, for instance, was on view at the Asian Arts Initiative in Chinatown throughout the winter of 2023.

Lewis's description of RAIR's role in giving "creative people" access to the stream of "highly loaded signifiers" also points to another role played by the site: helping build a particular kind of "waste-picking" artistic subjectivity and expertise. In the material access it provides to the waste stream, the institutional legitimacy it lends to the practice of pulling waste, and the community (of both artists and patrons) it builds of people invested in such work, RAIR makes salvaging waste not just respectable, but *cool*—and, as previous sections discussed, its practices, community, and director impart specific perspectives on what that practice means, such as an emphasis on loss and death. This is not a phenomenon unique to RAIR, of course. Shelley, who began working with found objects "decades ago," when such work was highly unusual, described how "now you can go to art school and take a found objects class, which to me is hysterical." But consider the story that Barad tells of a researcher, who, during a particularly flashy technology demonstration, "reconfigures our imaginations and the material possibilities for imaging, while undergoing his own set of transformations...a first-order phase change takes place as he is rapidly transformed into a new kind of expert: a nanotechnologist."<sup>185</sup> By making pulling *prestigious*, RAIR also produces a very specific kind of expertise. Shelley, who volunteered to review applications for the residency after she herself completed it, described how "the question at RAIR is, 'what can we do with this material?'" and the site's central logic was "we're going to pick the best people to answer that question," because:

there's a lot of people that don't really know what to do with material...it's not like a question where all the answers are going to be good, but they're willing to offer the opportunity to people that might come up with something—and...if somebody else came along and said 'I'd like to make a soapmaking cart,' they probably wouldn't pick them, because I gave that answer already. So I think they're always looking to expand.

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<sup>185</sup> Barad, *Meeting the Universe Halfway*, 356.

Shelley's description highlights one last transformation enacted by RAIR artists' practices: the creation and lionization of the role of the artist who can offer new "answers" to the question of "what to do with" waste "material"—who can find new ways to intra-act with objects from the pile.

For each artist, this role looks slightly different. Shelley describes herself as "someone who likes to find meaning in things," and she makes sculptures out of objects that are "dense with humanity." Narendra, who is motivated by ecological concerns, creates works that aims to provoke people "who have a latent concern with the environment" to push sustainability "to the forefront in their priorities." Martha, who was powerfully marked by the pain of losing loved ones without having mementos by which to remember them, sets out to help people "slow down" and consciously "think about the passage of time, and...their lives, and...people they've lost, and how they might want to remember them." In an era of ecological crisis, and in a city whose trash (and, often, recycling) are in large part burned in the suburb of Chester, with grievous health and environmental impacts for its majority-Black residents—a pulling practice more broadly has obvious, important benefits.<sup>186</sup> Each individual artist's practice, however, is also deeply meaningful, because their intra-actions with objects both reflect and refigure who they are. Like everything else that passes through the gate on Milnor Street—the waste in its heavy trucks, the histories the objects carry, even the spatial fabric of Philly itself—the artists do not leave RAIR unchanged.

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<sup>186</sup> "Chester City Residents Seek Closure of Covanta Incinerator"; Kummer, "At Least Half of Philly's Recycling Goes Straight to an Incinerator."

### AFTERWORD: “MEETING BARAD HALFWAY”

Throughout *Meeting the Universe Halfway*, Karen Barad puns on the double meaning of the English word “matter.” Intra-actions *are what matter*, the theorist tells us, both in the sense that they define materiality and dictate what is important. As they put it, “different material-discursive practices produce different material configurings of the world...not merely produce different descriptions”; therefore, “objectivity and agency are bound up with issues of responsibility and accountability, [and] accountability must be thought of in terms of what matters and is excluded from mattering.”<sup>187</sup> This thesis has set out to demonstrate the power of this sort of performative reading: to show how Barad’s reformulation of ontology and epistemology helps illuminate the complex relationships between humans and objects at RAIR. As we have seen, an agential realist approach explains my interlocutors’ stories about their intra-actions with the waste far better than either structural-symbolic or discard-studies-based waste anthropologies. Like any apparatus, however, this reading necessarily enacts exclusions. In this afterword, I will briefly explore the ideas that Barad offers to make sense of *what matters*, then ask what’s at stake in applying an agential realist understanding of human-object relationships to a place like Philly.

#### Agential Realist Ethics

Fundamentally, Barad’s agential realist ethical framework relies on two interconnected ideas: objectivity and responsibility. Both, they argue, follow directly from the interrelated notions of constitutive entanglements and the agential cut. Consider their definition of objectivity:

objectivity is a matter of accountability to marks on bodies...based not on an inherent ontological separability [or] absolute exteriority...but on an intra-actively enacted agential separability, a relation of exteriority within phenomena. Accountability to marks on bodies requires an accounting of the apparatuses that enact determinate causal structures, boundaries, properties, and meanings. Crucially, the objective referent of measured values is

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<sup>187</sup> Barad, *Meeting the Universe Halfway*, 184.

phenomena, not...objects...[so] objectivity, then, is about being accountable and responsible to what is real.<sup>188</sup>

This concept follows logically from previously discussed ideas: for Barad, it's possible to create "objective" measurements of given phenomena (*i.e.*, given configurations of measuring and measured bodies enacted by particular agential cuts), which creates an obligation to be "responsible to what is real." This obligation also stems from the nature of constitutive entanglements. As they rhetorically ask, "what would it mean to deny one's responsibility to the other once there is a recognition that one's very embodiment is integrally entangled with the other?"<sup>189</sup> Since "differentiating is not about othering or separating, but, on the contrary about making connections and commitments," and since, through the agential cut, "the nature of materiality itself...always already entails an exposure to the other," then "responsibility is the essential, primary, and fundamental mode of objectivity as well as subjectivity." In other words, "we (but not only 'we humans') are always already responsible to the others with whom or which we are entangled, not through conscious intent but through the various ontological entanglements that materiality entails."<sup>190</sup>

Barad's ideas on this point represent a profound, posthumanist challenge to mainstream Western ethics. Responsibility is a matter of "objectivity as well as subjectivity," and it is explicitly *not* a question of "conscious intent." Moreover, it is not limited to the human: "responsibility—the ability to respond to the other—cannot be restricted to human-human encounters when the very boundaries...of the 'human' are constantly being refigured—and 'our' role in these and other reconfigurings is precisely what we have to face."<sup>191</sup> In so many words, Barad believes that the dynamics of intra-activity inherently *compel* ethical engagement. Because objectivity—and even

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<sup>188</sup> Barad, 340.

<sup>189</sup> Barad, 158.

<sup>190</sup> Barad, 392–93.

<sup>191</sup> Barad, 392.

materialization—only exist through particular agential cuts, the nature of “space-time-matter” itself compels responsiveness (and, thereby, responsibility) to the metaphorical other.

### Accountability

Over the course of this thesis, questions of accountability have arisen in several contexts. Artists told me how their experiences of building “relationships” with objects’ past owners raised issues of consent and privacy; meanwhile, the ways their works were situated in a rapidly changing, deeply unequal city sometimes even raised the uncomfortable possibility of potential “complicity” in broader injustices. A direct application of Barad’s theory would frame these in issues of *objectivity*: of whether the apparatuses of the artists’ practices adequately accounted for, and responded to, the “marks on” the “bodies” those remaking practices materialized. Barad’s ethical formulation, however, leaves me with questions.

The issues of accountability my interlocutors raised represent complex, difficult moral questions, and I heard the artists grapple with them in ways that were both self-reflective and deeply, compassionately human. I don’t know how to account for whether the artists’ answers to them adequately respond to marks on the bodies of objects, humans, or cities. More broadly, I don’t know if such questions *have* “objective” answers, even in the sense that Barad uses the word to mean responsiveness within a particular agential cut. What is lost when we equate “responsiveness” and “responsibility”? And, since this connection is not easily separable from agential realism’s broader reformulation of agency as an “enactment” rather than “something someone or something has,” what is lost in an agential realist formulation of human-object relationships. If we follow Barad in “bind[ing] up” “objectivity” with “agency” and “responsiveness” with “responsibility,” how can we ever meaningfully attribute accountability to actors in the real world? Alf Hornborg’s critique of vitalist new materialisms as fetishistic does not, of course, apply directly to Barad’s performative framework—because Barad is not arguing we ought to attribute agency as something that objects

*have*—and indeed, as our Baradian reading of the artists’ practices has shown, Hornborg’s proposed alternative (challenging “ontological dualism” while maintaining “an analytical distinction between the social and the material”) does not adequately attend to the performative activity of non-human objects.<sup>192</sup> But the difficult questions raised by these issues of accountability may make Hornborg’s critique more applicable than it immediately seems. By reading ethics as flowing from an “objective” accounting of a particular agential cut, a Baradian reading may inadvertently enact similar *effects* to a vitalist new materialism. Without a robust way to hold actors accountable—that is, responsible in some meaningful sense for the “inclusions and exclusions” the apparatuses in which they participate enact in the world—what grounds for critique remain?

In the context of a deeply unjust, unequal place like Philadelphia, I worry that Barad’s distribution of agency to apparatuses and formulation of ethics as an “objective” property of a given configuration similarly risks “mystifying,” misrecognizing, and “naturalizing” the origins of “social inequalities.”<sup>193</sup> As highlighted by RAIR’s mission of “critiquing waste culture,” every year, humans produce billions of tons of trash, which clogs the waters, poisons the air, and pollutes the land. Through their short-sited consumption practices, particular groups of humans create waste that grievously harms entire ecosystems. Though these systems certainly do involve the intra-action of many human and non-human actors, *responsibility* for these harms cannot be equally distributed; instead, accountability is needed. And for all RAIR’s important work, who enjoys the privilege of pulling and remaking objects from the waste stream, and whose objects end up in the pile? In the context of Philly’s broader inequities, what does it mean to be producing a specific kind of “expertise” surrounding the “highly loaded signifiers” in the waste stream? How are such practices inflected by race and class? What, and whom, do they exclude? We must center such social

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<sup>192</sup> Hornborg, 762.

<sup>193</sup> Hornborg, “Objects Don’t Have Desires,” 758.



inequalities in our understanding of the relationships between humans and objects. Until we do, true accountability—and true justice—will always remain just out of reach.

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## **APPENDIX I: ARTISTS AND PROJECTS**

Note: to maintain her anonymity, “Olivia” is not included in this list.

### **Ang Li**

Age: 30s

Year of Residency: 2019

Philly connections: had visited the city “maybe once” prior to residency; lives in Boston

Project: *Balancing Act*: using custom baler to create bales out of EPS foam sourced from the tipping yard in order to explore weight-to-volume relationships in architecture, C&D waste management, and art worlds

### **Anamaya Farthing-Kohl**

Age: early 30s

Year of Residency: 2022

Philly connections: spent “a quarter of her life” in the city; lived in a variety of neighborhoods; attended Temple for undergrad

Project: *This Mantled* (collaboration with Nathalie Wuerth): workshops focusing on participants’ “cosmologies of things” + experimental textile project on incorporating objects from the waste stream into weavings; conceived as response to Audre Lorde’s poem “The Masters’ Tools”

### **Billy Dufala**

Age: 40ish

Philly connections: grew up in South Jersey; lived in Philly since college

Role: RAIR co-founder and co-director

### **Eugenio Salas**

Age: early 40s

Year of Residency: 2021

Philly connections: moved to Philly a few years prior to working at RAIR

Project: *Waste Feast/Fogones*: participatory social practice performance involving constructing traditional Latin American stoves and hosting a communal meal with the Revolution Recovery workers

### **James Maurelle**

Age: 30s

Year of Residency: 2016

Philly connections: moved to Philly for grad school at Penn; considers it home

Project (in collaboration with Ava Hassinger): a variety of wooden sculptures, including chests, vessels, rifles/crutches, and forms that “you can read as beds,” but he told me he “s[aw] more as torture devices of the [African] diaspora”

### **Lewis Colburn**

Age: late 30s

Year of Residency: 2018

Philly connections: moved to Philly for grad school; lived here for 12 years; teaches at Drexel; considers it home

Project: *Disposable Monuments*, a set of plywood monuments produced, then ceremonially destroyed, on the tipping floor, including a 30+ foot tall plywood obelisk; documented through a set of photographs; intended as commentary on discourse about status of Confederate monuments in the US

### **Martha McDonald**

Age: early 50s

Year of Residency: 2016 (Pew Center Performance Residency)

Philly connections: lived in Philly for most of her adult life

Project: *Songs of Memory and Forgetting*: an interactive performance on the tipping floor involving songs, choreography, quilts, and conversations to induce audiences to reflect on processes of death and loss

### **Maria Möller**

Age: 50s

Year of Residency: 2017

Philly connections: Philly-area native; lived here for most of her adult life, and works at several local non-profits

Project: *One Last Time*: a performance of a ritual practice, documented through photographs, in which people who’d “experienced something” that brought them close to “mortality” used an object from the waste stream for its intended purpose one last time—before throwing it into the pile to be disposed of

### **Narendra Haynes**

Age: mid 30s

Year of Residency: 2022

Philly connections: recently moved to Philadelphia, but intends to stay

Project: *Field of Preflection*, a “living sculpture” of a meadow made with foam from the Superfund site that is consumed by mealworms; the mealworms’ traces through the material are recorded in paint, and the material the mealworms excrete is used as the soil in which to plant new grasses

### **Nathalie Wuerth**

Age: 40s?

Year of Residency: 2022

Philly connections: never visited Philadelphia before; lives in Sweden

Project: *This Mantled* (collaboration with Anamaya Farthing-Kohl): workshops focusing on participants’ “cosmologies of things” + experimental textile project on incorporating objects from the waste stream into weavings; conceived as response to Audre Lorde’s poem “The Masters’ Tools”

### **Shelley Spector**

Age: late 50s

Year of Residency: 2018

Philly connections: Grew up in Northeast Philadelphia; studied at the city’s University of the Arts and PAFA; considers Philly home

Project: *Bottle Soap*: a mixture of sculpture and social practice, as Shelley built a cart to make soap out of waste oil out of materials she found on site and sells/gives away the soap in a variety of contexts.

## APPENDIX II: INTERVIEW OUTLINES

### FOR ARTISTS:

- Can you tell me about how you became an artist?
- How would you describe your artistic work?
- How did you first hear about RAIR? What attracted you to doing work here?
- How is RAIR similar/different to other artists' residencies?
- Could you tell me about the work that you do (did) at RAIR?
- Could you tell me about how you chose objects from the yard for your art—what objects did you select, and why those objects? How did you turn them into art?
- What did it feel like to work with these objects? What was different than other places you've worked?
  - Were there specific objects that evoked particularly strong feelings in you? Why those objects?
  - Did your feelings about the objects change over the course of your residency/the process of making the pieces you worked on at the site? If so, how?
  - Did the experience of working with objects at RAIR differ from what you expected before coming to the site? If so, how?
- Do you ever think about the previous owners of the objects you use? If yes, could you give me some examples?
  - *Balance between individuals/aggregates/community in this?*
- How do you think the object's pasts figure in the art that you make out of them? Could you give some examples?
- Did you keep any objects that you did not use in your work?
- Who is the audience for the work you created at RAIR?
- What impact would you like to see your work have?
- What did you do [/do you hope to do] with the work you made at RAIR? Did you sell it? Show it? Display it?
- Could you tell me a little bit about your connections to Philly?
  - How do you feel your artistic practice does/doesn't engage with Philly?
  - *If interviewees have lived in/around Philly:* Do you feel like Philly has changed in the time you've lived here? How? What has changed, and what has stayed the same?
- Does Philly shape the work you do here? If so, how?
- How did the people you collaborated with at RAIR shape the work you did here?
- What role (if any) do you see RAIR's work playing in how Philly has been changing recently?
- Anything else that you think is important to understand your work here / how you made sense of the materials here that we haven't talked about yet?

### FOR ADMINISTRATORS:

- Could you tell me about the work that you do at RAIR?
- How did you first hear about RAIR? What attracted you to doing work here?
  - Were you involved with the founding of the site?
  - *If so:* Can you tell me about why RAIR was founded? About how it got off the ground?
- Fingerprints all over it: balance between him and Stephen, he's the one who meets people



- How has RAIR changed during your time here?
- What are the goals of RAIR? How have those evolved over time?
  - What works have artists made that furthered these goals especially well?
- How is RAIR similar/different to other artists' residencies?
- How do you select the artists you bring to the site?
- Who is the audience for RAIR's work?
- What would you consider to be RAIR's greatest accomplishments? Its greatest challenges?
- How do you build support for the organization and its mission?
- Could you tell me a little bit about your connections to Philly?
  - *If interviewees have lived in/ around Philly:* Do you feel like Philly has changed in the time you've lived here? How? What has changed, and what has stayed the same?
- How does the city shape the work you do here?
- What role (if any) do you see RAIR's work playing in how Philly has been changing recently?
- How do you feel RAIR and its work are connected to the surrounding neighborhood? The broader city?
- Anything else that you think is important to understand your work here / how you made sense of the materials here that we haven't talked about yet?

### **APPENDIX III: CONSENT FORM**

#### **Practices of (Re)making Philly: Recycled Materials and Meanings at an Artist's Residency Informed Consent**

You are invited to participate in a research study about art, recycled objects, and the city. The goal of this study is to understand how artists and staff at RAIR understand the relationships between their work and the objects that they gather at the site, and how their practice with those objects connects to the broader community.

This study is being conducted by Gabriel Straus, an undergraduate student in the Department of Sociology and Anthropology at Swarthmore College in Delaware County, Pennsylvania. It will be the core of my senior thesis, a graduation requirement for my major.

There are 2 qualifications to participate in this study: (1) You must be at least 18 years old; and (2) you must have held a residency at RAIR.

Participation in this study is voluntary; you are free to choose not to participate for any reason. If you agree to participate in this study, you would be interviewed for about an hour. You may choose not to answer any individual questions during interviews, and you may choose to stop participating in the study at any time, including during an interview or after we're done talking. If you opt to do so, I will destroy all records/notes of our conversation. I do not anticipate any risks or benefits as a result of this study, but it is helping me to complete my work in college.

The information you will share with me if you participate in this study will be kept anonymous unless you specifically request that I use your name in my thesis. Unless you request to be named, your information will be assigned a code number that is unique to this study, and the list connecting your name to this code, along with this form, will be stored in an encrypted, password-protected file on my computer. Only I will be able to see the list, my notes from any potential observation, or your interview. Regardless of your decision about anonymity, no one else will be able to see your interview or my field notes. When the study is completed and the data have been analyzed, this form and the list linking names to study numbers will be destroyed. Your name will not be used in my senior thesis unless you specifically request otherwise.

**If you have any questions about this study or your rights as a research participant, please contact me, Gabriel Straus, ([gstraus1@swarthmore.edu](mailto:gstraus1@swarthmore.edu); (917)-923-6167), or the Chair of my department:**

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**By signing below, you are certifying that you are at least 18 years old and that you agree to be interviewed.**

Signature \_\_\_\_\_ Date \_\_\_\_\_

**By signing below, you are certifying that you are at least 18 years old and that you would like to waive your right to anonymity and to be named in my thesis.**

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Agreement to be Audio Recorded:**

I would like to record audio during this interview. I will store the recording in a password-protected, encrypted file on my computer to which no one else will have access, and I will destroy it when my research is complete. If you would prefer not to be recorded, I can also simply write notes.

**By signing below, you are agreeing to have the interview audio recorded.**

Signature \_\_\_\_\_ Date \_\_\_\_\_