Waste Labor Infrastructure and Visibility in UVA Hospital

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Who we are is how we waste, it creates the most explicit and visceral affects of the self, of our personhood. Waste is intense and intimate, existing in an in-between space, representative of who we are, but not what we can describe. Waste consists of the aspects of ourselves and our lives that are seen as impure: "Our feelings about waste can signal the plurivocity of being, the ways in which we are inextricably connected to that which we so often want to eliminate and escape," proclaim Hawkins and Muecke in *Culture and Waste* (2003).

Waste is a mutable, constantly shifting concept that takes on various aspects of the self and society. For citizens of a Western culture, like the United States, waste is considered the used napkin that is thrown away after eating and the plastic packaging encasing online purchases; domestic waste is the "various items consumers throw away after they are used" (US EPA, 2017). Waste management, in and of itself, is a crucial economic system that separates the generator of said waste and waste itself. As users and members of the system, we are taught the habit of discarding. If something is no longer of use, it is placed in a garbage can, which may be emptied into a larger trash can, and is picked up by waste laborers (trash collectors, housekeeping, custodians). The system of waste management is simplified such that waste becomes "out of sight, out of mind", allowing its demand on the waste generators to lessen, "facilitat[ing] denial or active not knowing" (Hawkins, 2006, p. 16; Müller, 2016). This perception of waste extends to people, particularly waste laborers. Their relationship with others' waste creates a greater divide between who they are as people and how others perceive them.

Though this social and moral division is vast for those who work with domestic waste, it becomes even more substantial for those who work with medical waste. Hospital waste laborers experience the intimacy of others' waste, sometimes parts of patients' bodies, while also having

specific characteristics of waste imposed upon them. The nature of healthcare prioritizes patient care and safety over the consideration of waste generation, so this waste is deemed necessary. Healthcare waste includes sharps, used tools, medical product plastic packaging, bodily excrements, and even parts of the body. It obscures the normative boundary of waste and labor. Healthcare waste laborers are both vital to and overlooked by existing systems in the hospital. Their work is required to maintain cleanliness and sterility, crucial to the care of patients, but they are separated from other workers because of their interactions with waste.

In this paper, I argue that waste labor within the UVA hospital is an infrastructure based upon visibility and intimacy. Unlike domestic waste labor, hospital waste laborers experience the separation from and interdependence to the waste they work with. I focus specifically on the work of Surgical Support Technicians (SSTs) within the general operating room sector (OR) of UVA hospital to determine the degree to which their labor relates to the invisibility and essentiality of waste work. In my literature review, I present current research in the field of waste studies and compare domestic waste and labor to medical waste and labor. I use observations from several conversations and shadowing opportunities with OR staff including doctors and SSTs along with hospital waste job listings and academic research in waste studies to aid my analysis of hospital waste labor as an infrastructure. I analyze relationships between hospital staff and waste laborers through the lens of invisibility and existing power structures.

Literature Review

The Interdisciplinary Study of Waste

Waste studies is a discipline that explores the aspects and systems of waste through anthropological, sociological, ethical, and ethnographic perspectives. A guiding principle of waste studies is derived from the work of Mary Douglas (2013): the body is porous, making it

susceptible to impurities that can be transmitted through polluted objects or persons. To maintain the purity and order of the personhood, then, relationships between polluted objects, waste, must be strictly maintained (Douglas, 2013). Gay Hawkins, a cultural theorist and pioneer of waste studies, explores this relationship in both *Ethics of Waste* (2006) and *Culture and Waste* (2003). Waste is a "cultural performance", it is inextricably linked to the self and the self's practice (Hawkins, 2006, p. 1). Beliefs are embodied, "inscribed in the ways we behave, experience, and feel" (Hawkins, 2006, p. 12). Our beliefs about waste center what we think should be discarded and how we decide to discard, determining who we are and what we think of others. Müller (2016) describes the role of "ghost ships" or "Flying Dutchmen" as vessels for the disposal of waste, unwanted on the lands they originate from in the seventeenth century and, later, the late twentieth century. These ships "discarded" sick people during large outbreaks of disease and, later, toxic materials into the ocean. Because those in high positions of power saw these materials (either toxic chemicals or people) as waste, the decision to discard was ethically inconsequential; they embodied the "out of sight, out of mind" mentality.

Scholars in the waste studies field also explore dirty work — work that is both physically and morally contaminated — from the perspective of waste laborers. Butt (2020) accompanies both an informal waste worker and a junkyard owner through their daily work in urban Pakistan, observing the inequalities in the relationship between waste workers and waste generators. In Pakistan, the prevailing social order is dictated by a caste system. Waste laborers, both sanitation workers and informal waste workers, fall at the bottom of the social hierarchy. Their social status chose their job, and their job perpetuates their social status. Butt (2020) expands upon Douglas's ideas of purity and body porosity: castes are separated by purity, so that those who participate in dirty work are deemed polluted do not transmit their dirtiness (Butt, 2020; Douglas, 2013). The

interaction between the susceptibility of the body to contamination as and the distance between castes creates waste intimacies that describe how work, social relationships, and affects perpetuate unequal interactions with the world (Butt, 2020). The concept of waste intimacy embodies both the relations of "proximity and distance within and across social groups" and of the self, waste, and work to individuals (Butt, 2020). In waste labor, this intimacy creates social boundaries, as seen by the perpetuation of Pakistan's caste system, as well as physical boundaries. The waste workers are permitted to cross a boundary from the outside into someone's home, inarguably an intimate space, but are kept out from the most intimate spaces in the home: rooms like bathrooms. Their work is formed through the intersection of others' perceptions of their social contamination, the necessity of their work, and the almost imperceivable distance from their customers' most intimate selves.

Waste and Labor in the Hospital

Healthcare waste is handled differently than domestic waste as it may produce the spread of infectious disease. The category of regulated medical waste includes bodily fluids, anatomical waste, needles used for vaccines or IVs, and any material that has been exposed to or come in contact with a contaminant, like forceps used during surgery, but also a material incorrectly mixed in with medical waste. Any facility responsible for the handling, disposal, and separation of medical waste regulated by the Virginia government is required to have a permit approved by the Virginia Solid Waste Management underneath the Virginia Department of Health (*Chapter 121. Regulated Medical Waste Management Regulations*, 2023). Permitted facilities are then required to have a thorough waste management plan that includes the procedures for collection, labelling, storage, transport, and disposal of regulated medical waste (*Chapter 121. Regulated Medical Waste Management Regulations*, 2023). Within healthcare facilities, there are specific

disposal policies and receptacles in place to decrease the risk of injury and infection of those who interact with the waste. There are usually small bins in each room where sharps (needles, syringes, etc.) are collected. Biohazardous bags are used to collect contaminated materials that can be sterilized, landfilled, or incinerated.

As a result of the highly stringent medical waste regulations, there is a large labor force within hospitals that interact with waste. These roles in UVA hospital include, but are not limited to, sterile processing technicians, surgical technicians, surgical support technicians, surgical housekeepers, and facilities management. Sterile Processing Technicians (SPTs) prepare reusable equipment for surgeries and perform decontamination and sterilization of said equipment after a surgery. Surgical Technologists (STs) are certified technicians that demonstrate a "higher level" of preparation of surgical cases within the operating room. ST roles require the completion of an accredited Surgical Technologist Training Program (Surgical Technologist - UVA Health, 2024). Surgical Support Technicians (SSTs) perform a job similar to STs, including the preparation of operating rooms prior to surgery, but do not require the training program completion (Surgical Support Technician - UVA Health, 2024). Surgical housekeepers are responsible for cleaning each OR room after every surgery, wiping down all equipment, scrubbing the floors, and disposing of the waste (OR Housekeeper, 2024). Facilities management performs the removal of waste from the hospital to its unspecified future locations like an incinerator or landfill.

I use the categorizations of Star's (1999) infrastructure to establish hospital waste management as an infrastructure in and of itself. Star (1999) describes infrastructure as a system embedded in another, often forgotten, in the background, a "fundamentally relational concept" (p. 380). She calls us to study the unstudied, to witness the moving parts of our lives that go unnoticed, because they reflect many of the ethical values and principles we inscribe on

ourselves and the world at large. At large, waste workers like janitors and trash collectors are the least visible moving part of larger infrastructures. Although some scholars in the field of waste studies aim to shine light on these invisible systems, this idea has yet to be explored in the healthcare setting. I explore the intersection of waste intimacies and hospitals through Star's infrastructure categorizations including the embeddedness of waste work into the greater system of the OR, the membership of waste systems that is taught and required for all staff within the OR, and the invisibility of SSTs' work in the OR. I supplement the (in)visibility of Star's infrastructure with Brighenti's sociological conceptualization of visibility through the examination of "invisible" work. Infrastructure involves shifting boundaries, but never to the extent that all aspects of the system are seen, some features must remain hidden. Brighenti (2007) states that "[v]isibility lies at the intersection of the two domains of aesthetics (relations of perception) and politics (relations of power)." By employing Foucault's conceptualization of power and his medical gaze, visibility can be explained as a method for conferring power. Things that remain unseen are not subject to direct criticism of greater powers, but may be disciplined through social regulations and inherent power structures (Foucault, 2003). My examination of visibility and intimacy as they apply to the work of SSTs in the OR establishes the waste infrastructure in the UVA hospital and provides context to how the construction of these systems within one another reflects the importance of waste labor physically and morally.

Methods

In order to situate the categorizations of waste as it relates to SSTs in UVA hospital, I first read ethnographic, STS, and anthropologic work regarding waste management, waste infrastructures, and varying relationships between the self and waste. Through these studies, I gathered key sociological concepts and theories that apply to the hospital waste labor

infrastructure. To apply these subjects to hospital waste laborers, I then observed and talked with a doctor and SSTs in the OR. I shadowed an anesthesiologist, Dr. Matthew Meyer, for approximately two hours at the beginning of the year to learn about and observe hospital waste streams, particularly observing the waste separation and disposal processes inside of a singular operating room. I was in conversation with him afterwards about his perspective of the work of SSTs as a representative of those higher in the hierarchy of healthcare workers and those who interact with SSTs regularly. I gathered data from UVA Health job listings for hospital waste laborers and the certifications/training required for the job. As a culmination of the theoretical concepts and primary data I gathered, I shadowed an SST at UVA hospital for approximately 5 hours, speaking with several of their coworkers and manager. In this paper, I will exhibit how the concepts of (in)visibility, intimacy, and infrastructure characterize the work of waste laborers in the hospital through my conversations and observations.

Analysis

The most evident application of Star's infrastructure to SSTs, OR housekeeping, and SPTs is that their work is integral to the function of the OR but is largely invisible to hospital staff and patients outside of these workers. Dr. Meyer spoke with me in detail about how, as an anesthesiologist, he and his peers have confidence that the rooms they walk into to take care of a patient is clean and ready, for every surgery, no exceptions. Though he does not know what the SSTs, or OR Techs, do in intentional detail, it is obvious that without this routine of preparing and sterilizing rooms, the OR would not be able to properly care for patients. SSTs are responsible for ensuring that a room is clean, disposable sheets are on the bed for the patient, and all necessary equipment is in the room and working before nurses even begin to prepare for the surgery ahead. After a surgery is completed and the patient is moved from the OR, SSTs assist

OR housekeeping and nurses in wiping down all equipment in the room, even if they were not used, consolidating all waste in a red biohazard bag, and collecting all reusable instruments to be sterilized. OR housekeeping then scrubs the floor of the room to ensure no bodily fluids or exposed materials remain. If this system created and maintained by SSTs and OR housekeeping and other waste laborers in the hospital was to cease functioning, even if at a lower level of diligence, the OR is at risk of collapsing. If these procedures were not completed after just one surgery, the next patient and all the staff on the case would be at heightened risk for crossmaterial contamination, an incredibly dangerous hazard that could result in the spread of disease. Thus, the work of waste laborers in the hospital is not only essential, the system they participate in is invisible when functioning properly, but visible upon breakdown, a key feature of Star's infrastructure.

The lack of visibility of SSTs and OR housekeeping, particularly to doctors, holds the power to keep the invisible unseen. An expansive power hierarchy exists in the hospital, and in most healthcare facilities, due to the variance in social status, influenced by educational and economic power. In the OR, there is an imbalance of visibility between doctors or surgeons and the various technicians and laborers; doctors are seen, doctors are the most visible. This vision is not reciprocated, and as Brighenti (2007) states, is "imperfect and limited" (p. 326). The only circumstances that OR Techs interact with doctors is if equipment needs to be fetched amid a surgery or the nurses need another set of hands to adjust an unconscious patient. The skew in power dynamics, characterized by invisibility, is reflective of the permeability of the body to social contamination. Waste labor is seen as unskilled compared to the years upon years of medical school the doctors experienced. Although the doctors are largely responsible for generating waste, the responsibility nor the morality of waste does not fall onto them. In this

scenario, then, hospital staff are producing the boundary between themselves and the waste laborers, similar to the residents and waste workers in Pakistan: "The boundary between the house as a private, inner space and its outside as a public, outer one is elementary [...] these distinctions — public/private, inside/outside, inner/outer — [structure infrastructure]" (Butt, 2020, p. 238). The SSTs are allowed to enter the operating room only when physical labor is needed, not for expertise on the patient's condition. The following sentiment from Butt (2020) pertains to this relationship as well:

If waste workers receive and take away waste, money, and any number of other things, households receive something else, an intimate space cleansed of dirt, filth, and all kinds of substances — something that then gets attached to the bodies and persons who compose these classes. (p. 241)

SSTs and OR housekeeping take away the remnants of surgery, successful or not, doctors receive a sterile field, a clean room where they can perform their specialized work, cleansed for them to exert their power.

The labor of waste in UVA hospital also embodies the social standards of waste through the relationships with and interactions between laborers based upon their training and education. Like the contrast between doctors of different specialties, employees in the different waste labor roles in the hospitals go through distinct trainings, obscuring these groups from one another. Certified Surgical Technologists (CSTs) are required to undergo a somewhat extensive Surgical Technologist Certification program in which they take classes on human anatomy and physiology, establishing a general sense of surgical procedures (*Surgical Technologist - UVA Health*, 2024). CSTs generally serve as managers of Surgical Support Technicians (SSTs) because of the additional medical education and certification. SSTs are required only to have

BSL training, provided by UVA hospital during their training period. Unlike CSTs, SSTs are trained without any required prior knowledge of surgical techniques and procedures (*Surgical Support Technician - UVA Health*, 2024). They spend about four months shadowing a senior SST. Sterile Process Technicians (SPTs) are required to complete a Sterile Processing certification program that involves mastering sterile processing techniques and surgical preparation strategies (*Sterile Processing Technician - UVA Health*, 2024). Both OR housekeeping and facilities management positions do not require additional certifications (other than BSL), meaning they are regarded as 'unskilled' positions (*OR Housekeeper*, 2024). The invisibility within the hospital waste labor pool is caused by, in part, the dissociation of general knowledge and skill from role to role. Each employee group is hired out of completely different labor pools, further exacerbating the power hierarchy that exists within the hospital waste management system.

In addition to the social and power dynamics evident within waste laborers, the physical separation of roles contributes directly to the invisibility of these groups to each other. During my shadowing experience, I observed the boundaries in place between the OR and waste management. Once a surgery is complete and the nurses and SST begin to clean the room, the SST calls OR housekeeping, requesting that they come to the room. Minimal conversation is exchanged, just, 'Hello', 'Room 23 please', 'Okay, be right there'. Waste and surgical tools are reconsolidated on the metal case cart and pushed from the OR into a separate, small room with an elevator. The elevator only goes from the OR to the sterile processing room, located in the windowless basement of the hospital. Here, the case cart is transferred from the care of OR housekeeping or an SST on the night shift to the SPT for disassembly, separation, and resterilization. Much like the households in Butt's *Waste intimacies*, the social boundaries of

outside from inside, clean from unclean, the boundary present within the hospital is physical, separated by a door, an elevator, and a few floors. Waste is isolated as quickly as possible so that the dirtiness does not permeate the OR, the hospital staff, and even those who deal with waste.

The power hierarchy is distinct through the segregation of laborers and their waste.

Conclusion

The system of waste management and labor within UVA hospital sits within the greater workings of all moving parts: surgeries, appointments, emergencies. It is embedded within the OR, strictly procedural and diligent. Doctors, nurses, and medical students learn how to waste. They generate waste in their work, yes, but more importantly, they are taught how to interact with waste and, by extension, those who care for it. Members of the healthcare system become proficient in silently recognizing the relationships between themselves, waste, and waste laborers. The work of waste laborers is intimate, essential, invisible, constructing the infrastructure of waste management in the hospital.

Though I was unable to fully explore and understand the relationships between all actors in the OR (doctors, nurses, CSTs, SSTs, OR housekeeping, and SPTs), it is my understanding that the healthcare system provides a unique lens for studying the relationships of power, personhood, and waste. Medical waste is so viscerally intimate because it can be the literal flesh and blood of a patient, maybe even an arm or a leg. The patient, however, is removed from the intimacy of their own waste because they are not generating it. The doctors and nurses removing cancerous tumors and dead tissue create the waste but bear no responsibility for it. Their worth is attributed to their work, which is outwardly, visibly, good. The waste, however, is bestowed upon

those who are not only viewed as unskilled laborers but as those who are tainted by their work.

Their personhood is permeated by waste.

It is beyond the scope of this paper to explore the whole of waste and its interactions with healthcare workers. I look towards Butt (2020) as an example of a much more comprehensive look at waste laborers and power structures. Because my research only took place for one semester, I was unable to spend adequate time attempting to understand how social class, gender, race, and education interact with the power structures and intimacies of the healthcare system. In my conversation with the anesthesiologist, he emphasized the importance of research like this paper because it highlights the work that is crucial to the functioning of the OR but is completed mostly by disenfranchised young people who do not have college educations. A prevailing theme in this discussion is the perspective of 'unskilled' labor, as efficient, superior housekeeping skills are not viewed as valuable by the public, most likely because of its relation to the work of women and immigrants. Further ethnographic work should focus on the effects of societal constructions as it pertains to these systems and boundaries, as well as the effect of hospital waste labor on the workers' attitudes towards themselves and the value of their work. I look to pieces like Ashforth & Kreiner (Ashforth & Kreiner, 1999), Rabelo & Mahalingam (Rabelo & Mahalingam, 2019), and Mankekar & Gupta (Mankekar & Gupta, 2016) to serve as models for exploring how dirty work affects its laborers specifically in hospitals.

I hope that my research contributes to the field of waste studies, extending the conversation to include medical waste laborers, rather than just domestic waste workers. Establishing hospital waste management as an infrastructure of itself provides an accessible means for the continuation of this work in the means of ethnographic studies, psychological analyses, and other affects visible or invisible.

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