Critical Stance

Waste Management

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Introduction

The emergence of waste management began in the early 1800s with concerns for the upper class and their health. At this time, industrialization, urbanization, and internationalization were quickly growing. Slums were littered in horse, pig, and human manure creating a perfect environment for epidemic plagues. While health was a concern, the economy was also threatened by the disruption that disease caused to it. As industrialization was increasing, there was also an increase in the amount and types of items that could not be thrown away and were more accessible than ever. Cities and suburbs were re-thought and re-planned to develop better modes of healthy living. This system was created to keep populated areas clean and healthy while also keeping individual citizen responsibility at a minimum.

Waste Management was developed to offset issues within public health and sanitation in urban environments. While the industry has positively adapted to meet new demands, it now also provides support to a throw-away culture, has been set up as a profitable industry to collect and dump more waste, and pollutes through landfill emissions disproportionately in low income and minority communities.

Community member and researchers like Robert Bullard helped to uncover the environmental injustices of landfill and hazardous waste sites in poor and minority communities. This highlighted the mass movement of waste to areas that lacked the resources to defend against the waste. This movement still lingers in the United States but is seen evermore increasingly in the global South, or what's known as developing countries.

Overview of the Field's Evolution

Populations began moving towards city centers in the late 1800s creating overly crowded urban areas. Disease transmission was becoming all too common. The loss of open space in these designated cities led to a movement of creating waste management and sanitary services (Wellock, 2007, p. 29). In 1870 the Massachusetts Board of Health proclaimed, "all citizens have an inherent right to the enjoyment of pure and uncontaminated air, and water, and soil, that this right should be regarded as belonging to the whole community, and that no one should be allowed to trespass upon it by his carelessness and avarice" (Wellock, 2007, p. 29). The Massachusetts Board of Health pioneered sanitary reform for other health boards (Wellock, 2007, p. 31). The Massachusetts Institute of Technology was the first to offer a "well organized, balanced curriculum in Sanitary Engineering" in 1894 (Rogers, 2005, p. 70).

At the end of the Industrial Revolution and post-Civil War, 14 million Americans were living in city centers (Wellock, 2007). Higher infectious disease rate, increase in horse traffic and droppings on the streets, along with the increase in manufactured items meant that waste was reaching unprecedented levels. In 1909, cities with populations over 300,000 were cleaning near half of their paved streets an average of five days a week according to the U.S. Department of Commerce report on sanitation and street cleaning (Rogers, 2005, p. 60-61).

With the presence of communicable disease, commerce was being interrupted while cities and communities were being quarantined to ward off pandemics. Waste bins in the home became a standard practice in order to keep the streets cleaned up. The first home bins were a three-bin system sorted by "garbage, ashes, rubbish" (Rogers, 2005, p. 56). The 1920s to the 1930s saw a decrease in sanitation conversations while many focused on the war and recreational activities. The Solid Waste Disposal Act of 1965 institutionalized the U.S. sanitary movement. This act intended to support states in developing comprehensive waste disposal plans (Rogers, 2005, p. 58).

The Earth Summit in Rio de Janeiro 1992 brought waste management and consumption into the spotlight, understanding that the way waste management and sanitation is handled could change the trajectory of the future:

> Environmentally sound waste management must go beyond the mere sage disposal or recovery of wastes that are generated and seek to address the root cause of the problem by attempting to change unsustainable patterns of production and consumption. This implies the application of the integrated life-cycle management concept, which presents a unique opportunity to reconcile development with environmental protection. (Report of the United Nations Conference on Environmental and Development, 1992, p. 358)

Contemporary Critiques

Waste management has adapted to changing categories of discarded items over time. Beginning with garbage, ashes, and rubbish, this adaptive style of management has only supported a lifestyle of throw-away and material culture. The Industrial Revolution can be credited for maintenance behavior to this new consumer habit. The, "growth of markets for new products came to depend in part on the continuous disposal of old things…a throw away culture replaced one grounded in reuse" (Knowlton, 2001, p. 1945). The system of waste management has inspired commercial enterprise. Products are built but with no resting place in mind. Consumers fail to realize the afterlife of their discards. Once placed in the waste bin, it is somebody else's responsibility.

Items that are easily discarded have no place but as humans we seek to find a place for these items, or "a need for meaningful order in a world without it" (Reno, 2015, p. 558). Waste bins have become a place to put things that have an undecided place. Organic matter such as banana peels, apple cores, and mango peels are most popularly place in the trash to head to the landfill when these items can be otherwise taken care of. Hazardous waste such as old paint and batteries have specific disposal requirements but there are not many ways to hold an individual or household accountable for properly disposing. Small, and sometimes even large amounts, are placed in the standard garbage, a way in which many deal with an unwanted item.

With waste easily leaving our homes, there is little consideration where it ends up, and to what ends. There is a one-way flow of materials that eventually end up in someone's backyard (Knowlton, 2001, p. 1945). When the population migrated towards cities, sanitary systems were quickly, and invisibly, built in response. These systems were created to keep disease out of cities and populated areas but not created with actual consideration into the disposal of an item (Knowlton, 2001, p.1946). Areas outside of cities were simply used as disposal sites and not themselves preserved.

Not only did this inspire a throw away culture but trash hauling itself has turned into a profitable business. In the mid 1950s city officials handed over commercial waste collection to private haulers (Rogers, 2005, p. 183). The privatization of this sector led to New York City's garbage industry being monopolized by a mafia cartel that came to an end in the 1990s. Trash hauling companies started to corporatize and enter the stock market (Rogers, 2005, p. 184). Companies were seeing significant profits when dumping trash into landfills. Monitoring technology was required at landfills for air and water pollution, and gas collection. Due to the high cost of these devices, many small trash haulers were forced out of the industry and left in the hands of corporate conglomerates. With their significant investments and profits these companies were able to create mega-landfills, greatly increasing the average landfill capacity (Rogers, 2005, p.185). The dark side is that the mega-landfills had to be filled, or the company was not maximizing their profit potential (Rogers, 2005, p.185). These companies started to play with trash and cities like a chess game, finding cities that would allow trash to be transferred into.

Waste management turns into an issue of environmental justice when landfills enter the picture. Nationwide, low-income communities of color are significantly more likely to live near hazardous waste and air pollution than other communities (Ahmed, 2021, p. 20). In 1979, Robert Bullard and a group of graduate students mapped out landfills and minority communities in Houston Texas to find that five out of five city owned landfills were located in Black neighborhoods. Additionally, six out of eight city-owner incinerators were in the same neighborhoods, along with three out of six privately owned landfills (Ahmed, 2021, p. 21). Bullard also stated that the neighborhoods housing the landfills had the, "worst garbage service." The communities were housing everyone's garbage but their own. Proving that a low-income community or a minority community was chosen with discrimination is difficult to prove. While it may be difficult for these communities to prove they were discriminated against it can be understood that these communities lack the proper resources to defend against such developments as landfills and hazardous waste sites.

The same action that allows individuals to dispose of goods without consideration to the future impacts, the United States is now taking this action on a larger scale, out on the global South. The global South is experiencing the burden of a post-industrial economy. Goods are often produced in the south in favor of the cheap labor and stricter laws at home, for this very same reason the goods are also being disposed of there (Rogers, 2005, p. 186). Waste that is too expensive or hazardous to dispose of in the United States is being shipped to developing countries, removing the impacts of the American citizens even further out of sight. Responsibility and pollutants are being passed along and creating even greater socio-economic inequalities (Bell, 2019, p. 102). In these countries a significant amount of the populations live below poverty and account for little waste in comparison to the developed countries (Bell, 2019, p.102). Poor populations are carrying the burden of this devastating injustice:

> In Mexico, for example, not only are rubbish dumps placed within its poorest communities, but the country's maquiladora region (along the Mexico–U.S. border) is also receiving millions of tonnes of unregulated e-waste from the U.S., as well as suffering from the effects of the maquiladora electronics industry itself, whose foreign firms reap financial benefits while leaving local populations to deal with the environmental damage, such as elevated deposits of heavy metals like lead and mercury (Bell, 2019, p. 103)

This is what is explained as waste flowing, "downhill in the social structural sense, while benefits flow up" (Bell, 2019, p. 103).

The idea that waste can be packed and shipped to another country is the devaluation of the livelihood of that country and its people. It's insensitive behavior, and it is one of the many ways that keeps the global South from prospering. Not only is the waste building up in these areas but landfill landslides are killing waste pickers and nearby dwellers. These events have been documented to have killed dozens in Manila in 2000, Guatemala City in 2008 and 2016, and

Addis Ababa in 2017 (Bell, 2019, p. 104). These countries see less regulation putting communities and individuals at risk.

Waste management continues to play a vital role in the fight against disease but has become a global crisis in its participation in climate change. Citizens in the United States are unbothered with the concern of where their trash is going. Street side bins are seen overflowing with debris and trash but because it's on top of, or near to, a bin it immediately becomes someone else's problem to deal with. Waste management, pick up, and street sanitation has allowed for privileged lives. It feeds into the materialism and consumerism and will become a big part of the anthropogenic story.

Conclusion

Waste management was recognized in the late 1800s over concerns of street sanitation and disease outbreaks. The practice grew outwards into the suburbs and have provided most households with basic sanitation needs. The terms of source separation have been governed by the times, from separating glass and paper recyclables, to all recyclables in one receptacle. Efficiencies of each have varied by available technologies. Green bins are available in many communities for yard debris pick up and California has even expanded their green bin initiative. The state has adopted a statewide food waste mandate, SB 1383. This bill requires all food waste to be placed in the green bins in order to divert from landfills and reduce methane emissions from this source.

At its origin, waste management was an attempt to keep populated areas healthy and streets clean. It has also cleared a path for privatization and profits. An increase in trash hauling means an increase in the number of products purchased and disposed.

A lot of work and improvements have been made in waste management since its early history. As most systems though, there will always be room for improvement. The areas of capitalism and consumerism, individual waste cognition, and environmental justice have yet to be fully addressed.

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