Perspectives on Waste from the Social Sciences and Humanities

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Opening the Bin

Edited by

Richard Ek and Nils Johansson

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INTRODUCTION

OPENING THE BIN TO THE SOCIAL SCIENCES AND THE HUMANITIES

NILS JOHANSSON AND RICHARD EK

Let us Open the Bin

Today, in the era of source separation, the act of discarding waste has become a focused activity in its own right. Every little thing used inside or outside the home or at work is thoroughly crushed and, in some cases, washed before it is sorted into the right bin. Separating waste has become a popular movement. There are at least as many people engaged in sorting as there are participating in democratic elections (MacBride 2011). When we act as sorting agents, waste management appears to be a well-functioning, logical system that is in harmony with nature, moving both ourselves individually and society as a whole towards a sustainable, secure, and circular future. However, although we as people have become increasingly involved in waste management there are many aspects of waste that remain hidden to us (Liboiron 2018). We experience just a small part of a huge system that controls the waste streams. Beyond every act of discarding, there are myriad networks, norms, morals, structures, ideologies, politics, assumptions, interests, power relationships, values, and systems that affect what becomes waste and how it is handled so that it ends up in the bin (Rathje and Murphy 1992).

To make waste visible we need to open up the bin and reconsider those things that initially appear so logical and natural. We can do this by using social science and humanities perspectives that pose questions about how waste actually comes into being, through relationships, language, politics, practices, and structures (Gregson and Crang 2010). If we just follow the institutions of waste making (Backderf 2015), it appears to be a highly moral thing, packed full of controlling norms. Even as children, we are taught how wrong it is to litter, in nature as well as the urban environment. In addition,

mistakes in separating the waste have become socially unacceptable. Throwing soft plastics into the container for hard plastics could elicit shouts of condemnation (Sellin 2009). Waste in the wrong place looks horrible, creates disorder, and stirs emotions. It calls on Douglas's (1966) old definition of dirt as "matter out of place." But while it's a sin to discard waste incorrectly, it is virtuous to put waste away in the right bin. The municipal information brochures encourage correct waste disposal, as it brings environmental benefits and is an integrated part of the utopian sustainable society (Lougheed, Hird, and Rowe 2016).

But considering the major environmental impacts from the contemporary waste system, is it really such a good idea to participate in waste disposal regardless of whether it is done properly or not? Waste needs to be transported, managed, and processed, all steps requiring energy (Björklund and Finnveden 2005). In cases where waste management is considered to have a positive environmental impact, it is based on the assumption that the circulation of waste substitutes for the extraction of virgin resources from the Earth's crust (Clift, Doig, and Finnveden 2000). In practice, however, secondary resources do not always replace primary resources, as the material output is often too contaminated to be accepted into existing product chains (Johansson, Krook, and Frändegård 2017), while the consumption of raw materials increases over time (UNEP 2016). The waste sector is also one of the industries that has fallen behind in climate-change adaption. In Sweden alone, fossil carbon dioxide emissions from waste incineration have increased from 0.8 million tonnes in 2000 to 2.4 million tonnes in 2015 (SCB 2018), which is equivalent to five percent of Sweden's climate emissions.

Recycling is an extension of the political tradition of hiding waste away and forgetting about it – "out of sight, out of mind" (Mauch 2016) – in order to obviate the disadvantages of the current economic model. Previously, waste was physically hidden on the outskirts of societies, beneath the ground in landfills. But as space to physically hide waste was running out, a new plan for making waste invisible was needed (Hawkins, Potter, and Race 2015). Moving up the waste hierarchy brought the answer (Gregson et al. 2013). Recycling has the potential to evaporate waste, making the waste a resource, just materials circulating in a zero-waste society (Korst 2012). By not talking about waste attention is drawn from the structural causes of waste production, such as ever-more intense production and consumption, the crucial *raison d'être* of contemporary waste.

As a rule, it is household waste that is typically the focus of conversations – it is what we sort, the waste we read about, and thus have some understanding of (MacBride 2011). Household waste is also the focus of

research and waste policies, partly because neither researchers nor authorities have access to the industrial sphere (Lougheed, Hird, and Rowe 2016). However, household waste constitutes only a small part of all waste generated. For example, in Sweden, household waste accounts for only four percent of all waste generated (Naturvårdsverket 2016). Waste generated in the preparation of products, upstream, such as mining waste and production residues, is waste that is typically not visualized (Avfall Sverige 2018). The individual is put at the centre of waste management, and the industry receives less attention and thus less monitoring.

It is therefore highly uncertain if we, through our efforts to sort waste into bins, really make a difference, other than perhaps by increasing the carbon emissions. This contradicts the existing discourse on the environmental friendliness of the waste sector in its green efforts to transform waste into resources. There is thus a need to deepen the investigations and question the prevailing taken-for-granted assumptions that uphold contemporary waste management, and open the bin, so to speak, but to also look wider by contextualizing waste management and uncovering the myriad ideologies, acts, language, and networks that affect what is counted as waste and how it is managed. By adopting deeper and broader humanistic and social-science perspectives, there is a potential to avoid proposing solutions that deal with the symptoms of the problems, usually through technical solutions, and instead direct the focus towards the root of the problems.

Bringing a Diverse Mix of Waste Scholars Together

This anthology emerged from a workshop that had the express purpose of gathering scholars within social sciences and humanities with a common interest in waste. Academic work on waste is predominantly taking place within the natural sciences and technology, but the number of researchers addressing waste from a humanistic and societal perspective increases year by year. This trend has become apparent through a growing number of published articles from social science and the humanities in the traditionally engineering-oriented waste journals such as the *Journal of Cleaner Production, Waste Management and Research*, *Waste Management* and *Resources, Conservation and Recycling* (Gregson et al. 2013; Abeliotis, Lasaridi, and Chroni 2014; Corvellec 2016; Bradley 2018). But the waste scholars in the social sciences and humanities are seldom united. The above-mentioned workshop was to become such an occasion. We, the organizers, expected it to be quite a small workshop, and we were taken by surprise by the huge interest from scholars from all across the world. When the workshop finally took place, in Helsingborg, Sweden, on April 26–30, 2017,

almost a hundred academics and professionals attended and it became clear how dynamic and multifaceted the societal and humanistic research on waste is, and we hope that this plurality is reflected in the anthology.

Making an introductory categorization or thematization of the contributions included is consequently not that easy. A couple of the contributions come from classic humanistic academic disciplines like history and philosophy. In chapter one, "Waste's Social Order: a Historical Perspective," Anne Berg addresses waste as a historical category, and uses the Nazi waste regime as an example in order to illustrate the inherent presence of ideology and social ordering in everyday (waste) practices. In chapter four, "Mending: Female Education in Waste Prevention Over the Centuries," Heike Darwanz takes a historical-cultural approach towards the educational practices of repairing clothes in order to put contemporary fast fashion in perspective. Further, we find philosophical accounts of the "nature" of waste in chapter two, "Turning to the Spectre of Waste: a Hauntological Approach," in which Lisa Doeland muses on the hauntology (after Derrida) rather than ontology of waste (in order to let go of philosophically stable essences) to argue how disposability is an inherent part of contemporary production and consumption. Waste is a spectre that always already follows us. In chapter eleven, "The Ocean as Thingspace: from the Ocean as 'Master of Disappearance' to the 'Friendly Floatees' and a New Ocean Cosmology," Petra Beck applies a Heidegger-influenced approach towards the ocean as a key global space that gathers and moves, illustrating this with toy ducks of both a fictional as well as material nature.

A number of chapters have a particular focus on the management and politics of waste. In chapter five, "Moving Waste Around: Recycling and the Governance of Waste Management," Myra J. Hird and Cassandra Kuyvenhoven approach the circulation of waste as a specific form of governance, as it relies on a techno-scientific logic that becomes even more harmful to the environment than disposal. Moving waste around does not make it disappear and this particular procedure even creates new forms of waste. Chapter six, "Waste, a Matter of Energy: a Diachronic Analysis (1992–2017) of Waste-to-Energy Rationales" by Laurence Rocher, contains an analysis of how waste has been framed and represented as energy over twenty-five years as narratives on waste management and waste as potential energy have converged in policy.

In chapter seven, "Environmental Concern in Waste Economy: a Case Study of Waste Policy in Finnish Lapland," Veera Kinnunen, Heikki Huilaja, Johanna Saariniemi, and Jarno Valkonen analyse how waste is framed and discussed in policy contexts as a manageable problem and how environmental concerns are transformed in the process. In chapter nine,

"The Effect of Proximity on Waste Management in the Paradoxes of the Circular Economy in France," Jean-Baptiste Bahers and Mathieu Durand scrutinize the abstract visions of the circular economy and ground the inquiry spatially, through key geographical concepts like territoriality and proximity.

Several chapters address the materialities and performativities of waste management through different practices. In chapter ten, "Waste-in-Becoming, Value-in-Waiting: On Market Performativity and Value Propositions of Waste Electrical and Electronic Equipment (WEEE)," Jennie Olofsson in her ethnographic study unfolds the practices of disassembling and sorting electrical and electronic equipment in Swedish electronic waste-recycling facilities, and how values and markets are created in the process. Lars Hedegård and Eva Gustafsson in chapter thirteen, "The Fashion Waste Management Process at ReTuna: a Study of Unstable Classifications of Textile Goods," execute a similar research design through the practice of actor network theory, following things in order to explore how practices of collection, classification, and ordering are played out in a recycling facility in Sweden. Finally, in chapter fourteen, "Apple's Recycling Robot 'Liam' and the Global Recycling Economy of E-Waste. What 'The Guardian' Does, and What He Misses Out On," Stefan Laser and Alison Stowell unfold the practices of Apple's robot Liam and how they are imagined in the context of a circular economy in which everything will supposedly be recycled in theory, but not so much in practice.

The compilation includes two contributions which take a more methodological and pedagogical approach towards how waste and waste management can be imagined and deconstructed. In chapter eight, "Visualizing the North Atlantic Gyre Patch," Katarina Dimitrijevic introduces a learning workshop methodology, designed to bring out creative visual and narrative-based imaginations of waste. Chapter twelve, "Designing for an Inclusive Waste Service: Experiences from Applying Norm-critical Design Methods in Waste Service Development," by Lisa Andersson, Marcus Jahnke, Julia Jonasson, and Rebecca Röström, attempts to deconstruct and problematize the taken-for-granted norms of waste services through workshops.

Finally, in the tradition of cultural studies, Fanny Verrax in chapter three, "Waste on Screen: Trashing, Littering, and Recycling in American TV Series," studies how practices of trashing and recycling are represented in popular culture, raising questions about class, gender, and ethnicity in the process.

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CHAPTER ONE

WASTE'S SOCIAL ORDER: A HISTORICAL PERSPECTIVE

ANNE BERG

We may think of "waste" in a number of different ways, for instance as things or stuff, as a problem to be solved or avoided, as a guide to value systems, as biosocial exhaust, or as excess. In much of contemporary discourse, waste figures as a category of the future, focusing fears about climate change and planetary resources, highlighting technological problems, and inspiring a wide array of high-tech "solutions" (Rogers 2005; Thomson 2009; Humes 2005; MacBride 2013. In many cases, this focus underscores the fragility of our way of life and points – almost unmistakably – towards a gloomy, dystopian future. I would like to break with this line of thinking and instead investigate waste as a category of the past, a fossil of the dominant social order in which it was produced, recycled, and cast away (Reno 2014). Instead of focusing only on its materiality, I like to think of waste as a categorical fossil (Douglas 2002). Much like their material counterparts, categorical fossils key our understanding of that past. Thought of in this way, wastes – as well as the taboos, policies, technologies, regulations, and prohibitions that govern them – reveal the manifestation of ideology at the level of everyday maintenance. What comes into view is the social order that is grounded in practice – in garbage practice, to be precise (O'Brien 2008).

I am going to draw my examples from an extraordinary case – Nazi Germany. I am not suggesting that the Third Reich is representative, nor am I trying to work out similarities between Nazi Germany and contemporary or current democratic societies. Rather, Nazism offers a compelling perspective because the regime's ideological parameters are so readily apparent and beyond dispute. Focusing on the Third Reich illustrates how waste practices translate government policy and political ideology into the language of infrastructural upkeep.

In what follows, I provide an overview of the Nazi waste regime (Gille 2007). In Nazi Germany, authorities were chiefly occupied by concerns over limited national resources (and their thorough exploitation), national health, and racial purity. On a number of levels, waste management promised answers to these concerns, powering the "solutions" to the regime's obsession with the scarce resources needed to fight a war that would guarantee a global racial order. In Nazi Germany recycling was driven by and placed in the service of the regime's mode of production – war production to be precise – and, not surprisingly, in utter disregard of an already ailing planet. Accordingly, my examination of the Nazi waste regime does not speculate how "green" the Nazis were (Bramwell 1985; Guha 2000; Brüggemeier, Cioc, and Zeller 2005; Uekoetter 2006; 2014). Others have taken up this issue, which strikes me as polemical rather than historical. The focus on waste as a planetary problem – a problem for green engineers, green policymakers, and green activists – is a relatively recent phenomenon. Before the advent of the green movement in the 1970s, questions of "sustainability" were asked in almost exclusively economic terms. Nazi Germany was no different, it just added questions of race.

The anticipation of resource scarcity and production bottlenecks drove the regime's politics of recycling. Individual and industrial efficiency, salvage, reclamation, and extraction were supposed to combat chronic shortages and conserve precious resources. While low-level officials and individual citizens could convince themselves of the apolitical nature of their delusional collective hoarding, the upper echelons of the Nazi administration were all-too conscious of the political implication of the various campaigns designed to stretch the Reich's resource base. As my discussion of the wartime recycling frenzy should make clear, the total extraction of resources bore the imprint not only of total war but of a war of extermination – of genocide.

The Third Reich serves as an extreme example. Yet the histories of waste practices in Nazi Germany exhibit some complex and disturbing continuities that characterize modern, industrialized societies irrespective of their ideological hue. Recycling (and not just under Hitler) serves a systemic function – it sustains existing production and consumption patterns, and does so by default. In the Third Reich, waste and its management was central to the overall trajectory and implementation of war and genocide. Conversely, in the global present, recycling enables the overproducing consumer citizens in "developed" nations to feel good about their consumption habits while exporting the costs – in terms of labour and toxins – of a lifestyle that prides itself on the development and production of better, cleaner, and greener products (Bond 2007; Bachram 2004). The very

strategies we use to tackle the problems of waste ultimately sustain and reproduce the conditions in which the problems first arise.

Zero waste, Nazi-style

The Nazi Racial State was one of the first modern states to gear its economy towards what we would now call "zero waste" (Berg 2015). Ideas about "efficiency" were crucial to the Nazi regime's attempts to purify the German body politic, rationalize the economy, and increase productivity. Accordingly, Nazi rhetoric was replete with exhortations about the need for and purpose of collective sacrifice. Frugality and thrift were championed alongside inventive resourcefulness and the creative repurposing of outmoded, broken, or second-rate materials long before wartime shortages would necessitate such practices.

Unlike its contemporary counterparts, National Socialism damned wastefulness not only on economic but also ideological grounds. In fact, the regime fanatically targeted waste, wastefulness, dirt, decay, impurity, and contamination, not just when expedient or economically necessary, but as a matter of principle. Designations of filth, contamination, and pollution were applied to cultural products and artworks, concepts and ideas, social habits, and practices, and were eventually extended to individuals and groups of people. Championing racial purity and national health, Nazi ideologues envisioned the total eradication of all types of "wastes" and "valuelessness" and pursued an equally total (and reckless) reclamation of any and all residual value. This pertained primarily to natural and industrial resources, like when scientists debated the possibility of collecting coal dust and pressing it into briquettes. But during the war, Reichsführer-SS Heinrich Himmler and the National Socialist People's Welfare extended such resource thinking to humans, most evidently in the race-based initiative for the "recovery and cleansing of German blood," which, according to historians Michael Burleigh and Wolfgang Wipperman, amounted to the "greatest abduction of children in human history" (1991, 72). In Nazi-occupied territories children deemed racially valuable were robbed from their parents, kindergartens, orphanages, and children's homes and designated for "racial enhancement" [*rassische Aufwertung*].

In Nazi Germany, racial and economic thinking were part of the same logic. The idea of a closed-loop economy was intimately connected to fantasies of racial purification and the total eradication of racial others and social "misfits." Readily apparent in the language of Hitler and Nazi ideologues from the beginning, promises for national unity and health, racial purity, economic prosperity, and territorial expansion were premised on the

total destruction of Weimar democracy, the eradication of "community aliens," the annihilation of internal and external enemies, and eventually the extermination of European Jews (Allan 2002; Kershaw 1999; Confino 2014). But concrete policy proposals were slow to develop, even as Nazi ideologues reached for superlatives and extremes. The reckless extraction of resources promised to achieve both ideological goals simultaneously. Internally, the extraction of resources was supposed to guarantee German self-sufficiency and make the Reich energy and resource independent. At the same time, resource extraction should at least intermittently power the war machine and enable the acquisition of resource-rich territories while destroying the enemies that threatened to thwart German intentions or "pollute" the national body.

It was also the case that Nazi rhetoric preceded policy proposals and concrete plans with respect to waste management. And the extremity of the rhetoric ensured that projected solutions reflected the fanatical spirit and radical extremism of Hitler's hyperbole (Browning 1992). The dynamism that characterized the regime more broadly was also chiefly responsible for the development of the regime's zero waste politics (Tooze 2006; Allan 2002). The drive for autarky was key. In 1936 the regime placed the economy on a war footing with the expressed goal of preparation for armed conflict (read – conquest) by 1940. It is in this context that wastes of all sorts were reconsidered as a resource, and their systematic extraction was envisioned on a general scale. Official policies starting with the Four Year Plan in September 1936 and the Law for the Use of Secondary Materials the following March had important precursors resulting from local, sometimes individual, initiatives, rather than general visions or official plans.

In Berlin, city councillor Adolf Hoffman and city commissioner Julius Lippert proposed a massive anti-rubbish advertisement campaign to cleanse the city in the aftermath of the Nazi assumption of power. The idea was to engineer a visible break between the filth of Weimar and the salubriousness of the Third Reich. The Reich's Labour Service ran garbage surveys in 1933, 1934, and 1935 that solicited proposals from ordinary citizens for the utilization of household wastes. Individuals put their creativity and their political wit on display. Suggestions ranged from relatively predictable practices like bone collection and tin can reclamation to more outlandish ideas like compressing garbage into fuel bars that could be used for household heating instead of wood or coal.

As historians and anthropologists of garbage have illustrated, the recycling of materials has a long and deep history and is hardly a modern invention (Melosi 2005; Strasser 1999; Rathje and Murphy 1992). However, for most societies, reuse and recycling have been driven by private

enterprise. This was true for Weimar Germany. Nazi rhetoric about resource extension, thrift, and autarky opened up seemingly lucrative business opportunities and creative outlets for local scrap merchants eager to acquire additional political currency and place themselves at the service of the new regime (Denton 2014). Moreover, the subsequent *Verstaatlichung* [*nationalization*] of the garbage industry could draw on the fanatical zeal of ordinary citizens while being run according to political rather than economic principles.

This is most evident in one of the first systematic waste-to-resource initiatives of the regime – the separate collection of household kitchen garbage to be used as hog feed. In conjunction with the Four Year Plan, Hermann Göring and Minister of Agriculture Herbert Backe envisioned the large-scale use of kitchen scrap in Reich-owned hog farms run by the National Socialist People's Welfare (NSV). Initially, the massive volunteer staff of the NSV was supposed to deliver the wet garbage to piggeries across the country, ideally before it spoiled. Soon, the NSV became the prime recipient for kitchen garbage (Weber 2013). But as early as November 1936 Backe had to defend the waste-to-pork program's substantial financial losses. Feedlot construction and operation were expensive, and so was the transport of the precious hog feed. War only made matters worse. Due to the poor quality of the garbage, the NSV pigs grew at a slower rate and frequently had to be slaughtered prematurely. By the end of 1942, the attempt to turn kitchen garbage into bacon had incurred losses exceeding sixteen million RM. The regime didn't flinch. Instead, Hermann Göring, the plenipotentiary for the Four Year Plan, insisted that the success of the program must be understood in not financial but political terms. The propaganda value of the initiative as well as the daily involvement of ordinary citizens on whom the regime depended to dutifully collect their kitchen scraps was payoff enough.

In parallel, other initiatives targeted private citizens as well as industry. Inside the Reich, paper, textiles, bones, and scrap metal were particularly important. Volunteers from the NSV, Hitler Youth, and the League of German Girls were crucial (Zolling 1986). They constituted the foundation of what essentially developed into a massive conservation and recycling program during the first years of the war. They passed out pamphlets that instructed households to properly separate their wastes, as well as organizing local collection drives and staffing the regular collection points. They counted, weighed, and recorded the exploits and oversaw transport to storage facilities where much of the hoarded materials remained until after the regime collapsed.

Recycling Wartime Destruction

By 1940, scrapping and salvaging had become routine and were readily extended to the occupied territories. The initial successes of *Blitzkrieg* situated the precarious state of raw-material provisioning in the grandiose planning projects for a thousand-year Reich. As war dramatically disrupted trade and squeezed German industry, the regime began to literally hunt down waste of all sorts, championing it as an indispensable resource that, at all costs, must be returned to the war economy. Hans Heck, the Reich's commissioner for secondary materials, outright condemned the squandering of raw materials and constantly emphasized the extensive material needs of war production. Junk and scrap metal were of particular significance since Germany had limited ore reserves, even after the initial waves of conquests. But neither Hans Heck nor anyone else acknowledged the fact that war itself produced waste – the newly discovered resource that the regime now moved to exploit with utmost ruthlessness – at exorbitant rates.

The Nazi regime hunted, collected, counted, and transported war debris and wastes of various sorts all over Europe. In the occupied eastern territories the frenzy of collection matched that of material destruction. Poland figured as a first testing ground in this realm. Hans Schu, a former scrap merchant, worked together with the SS, the Wehrmacht, and industry to recover junk, scrap, and broken-down material to return it to manufacturers inside the Reich or under Reich control. After the victories in the west, Schu oversaw the comprehensive junk recovery efforts in Western Europe. After the invasion of the Soviet Union in the summer of 1941, Schu was entrusted with the organization of metal reclamation in the occupied territories as a whole. By August 1943, Schu's organization had ostensibly returned five million tons of booty from the occupied territories. But Schu had to contend with the very scarcities his efforts were supposed to remedy. Fuel shortages, transportation bottlenecks, and destroyed infrastructure were endemic, and accordingly massive quantities of accumulated junk were stored in the occupied territories while the hunt for more continued. As might be expected, there was no shortage of scattered metal debris and broken-down equipment – the war produced junk at a rate that not only exceeded the transport capacities of the Reich but also the available smelting facilities.

After the fall of Stalingrad in winter 1942–3, the Reich pursued reclamation efforts in the east with renewed urgency. In May 1943 the Wehrmacht High Command commissioned the *Gross-Schrottaktion* – a massive junk recovery mission to collect and return to the Reich the "recklessly abandoned riches" that graced the countryside. Heinrich

Himmler personally endorsed the initiative and instructed the SS functionaries in the eastern territories to ensure that SS units and police battalions supervised the collection and removal of junk from all destroyed Russian villages and towns. The Russian city of Smolenks became the waste transfer station for junk collected by the Wehrmacht. Army railway workers detailed their efforts in the east in carefully illustrated reports. These wartime picture books present an eerie summary of the "infrastructural achievements" of the Wehrmacht and illustrate the numerous instances of junk reclamation, recovery of trapped machinery, and establishment of a massive junkyard where the secured metal waste was sorted, cut, and loaded for transport. The July 1943 report contained an addendum with photographs taken earlier in March depicting the deliberate destruction of infrastructure, such as water towers, bridges, and fuel tanks in Semlewo (Semlevo), a town roughly 150 kilometres east of Smolensk

The photos are auspicious. In September, the Wehrmacht's positions were evacuated and all efforts were geared towards removing as much accumulated stuff – junk and all – to Bialystok, about seven hundred miles west, designated the next main junk storage centre. Even the orderly report cannot hide the chaos that unfolded as the Wehrmacht scrambled to evacuate the region and move not only their own staff of one hundred but also fifteen hundred forced labourers, many of whom joined the caravans of civilians coerced to leave the area. Trains were loaded with vast quantities of equipment and almost three hundred metric tons of precious metal junk in a few days. Accidents abounded. The burning of "Russian houses" accidentally set the station on fire. On some days, more than sixty trains left Smolensk. But even those numbers were insufficient, and there were massive backlogs. In total, the Wehrmacht logged 11,903 train cars filled with barracks, junk, and military vehicles headed for designated storage areas further west. On September 24, the evacuation was complete, and as the last train left the station the Smolensk Hauptbahnhof was blown up. Naturally, some junk remained. The cycle was imperfect, but the logic sound.

By summer 1943 the wasteland the regime had "constructed" in the east threatened to engulf Germany. Destruction arrived from the skies by Allied aerial bombardments and from the east as a dual function of the destruction wielded by Red Army's advance and the scorched-earth practices of the Wehrmacht's retreat (Kershaw 2011; Büttner 2005; Nossack 1981). As if the reclamation of waste had the power to halt and reverse its impending collapse, the regime set out to battle the effects of its own destruction. This manifested Nazi fears about filth, disease, degeneration, social dissolution, and moral decay in material reality. Waste – rubble, debris, household

garbage, ashes, bodies, and broken-down material – was everywhere. As W. G. Sebald put it so eloquently, the Germans "who had proposed to cleanse and sanitize all Europe, now had to contend with the rising fear that they themselves were the rat people" (2003, 34).

But the struggle against waste continued to the very end. The destructive dynamics that rendered waste reclamation an integral aspect (and in fact motor) of the Nazi system are most evident in the most extreme implementation of zero-waste economics – the camp system. The concentration camps were included in the initial vision for comprehensive recycling programs inside the Reich. Göring ordered the complete collection and utilization of any and all secondary materials in September 1936. The SS Main Office decreed that "from now on and for the future the disposal of waste and secondary materials is forbidden." In October, the commander of the Sachsenburg concentration camp informed his staff that waste paper, textile waste, metal scrap, and bones from camp kitchens and canteens must be collected in separate and adequately labelled containers. He reiterated "for the last time" that empty beer and mineral water bottles "must be returned in the canteens and mustn't be tossed in the rubbish." He further explained that old folders, newspapers, and packing materials are to be considered waste paper – unless they contained secret documents – and that old washcloths, cleaning rags, burlap rags, and twine and string scraps were to be included in the collections of textile waste. In no uncertain terms did he make clear that he considered it the personal duty of every single SS man to ensure that these essential assets be returned to the state in requisite containers and with due diligence.

The implications here should be clear. SS officers felt the need to inform subordinates that they would enforce these measures with accustomed ruthlessness (the Sachsenburg commander explained that any violation would be punished with a strict curfew and confinement to the barracks). In doing so, they ensured that the orders would be passed on with the same diligence and enforced with the same ruthlessness for the camp population. While special receptacles for secondary materials were aimed at concentration-camp staff rather than inmates, the camp administration stored and kept detailed records of the inmates' personal effects and clothing. In the early years of the regime, when prisoners were occasionally released from concentration camps, their effects were returned to them, and in the case of death returned to their families.

With the establishment of massive labour and concentration camps across the Reich and later in the occupied territories, they often functioned as massive waste transfer and refurbishing stations. Prisoners sorted through the masses of materials accumulated during the Reich's collections of

textiles, household wares, shoes, and musical instruments. The prisoners disassembled used or broken machinery, sorting metals according to their alloy composition. The prisoners in the women's camp Ravensbrück received wagonloads of soiled and destroyed uniforms from wounded or fallen soldiers, clothing taken from the population of Poland, and the personal effects of the ghetto and concentration-camp population in the occupied east. They were to clean, mend, and alter these items for reuse by the Wehrmacht in SS-run sweatshops (Kaienburg 2003, 950). A prisoner at Sachsenhausen concentration camp remembered sorting through truckloads of civilian clothing – suits, women's garments, children's clothes, and shoes – that had been taken from prisoners in Auschwitz and brought to Sachsenhausen for reuse and redistribution by the Waffen SS. The extraction of prison labour was a key component in the envisioned closed-loop cycle. Once the labour power of prisoners and forced labourers had been exhausted, their bodies were disposed of, dumped or incinerated like other waste from which no more value could be squeezed.

The war released the morbid creativity of the SS (Wildt 2002). It was just that military hospitals were equipped with recycling containers. In 1942, the regime conceived of wastewater in concentration camps and Waffen SS barracks as a resource. This required the installation of fat skimmers to reclaim the meagre amounts of grease in concentration-camp kitchens for the production of soap, laundry detergent, and machine grease. The SS rationalized camp kitchens to avoid squandering resources, which explains why the commander of KL Buchenwald mandated the use of water in which potatoes had been soaked overnight so as not to waste the starch that seeped out of the potatoes into the soaking liquid.

In most concentration camps the SS established "industries" for this purpose, and in all camps the emaciated bodies of those designated as human *Aussatz* were themselves conceived as a resource to be exploited, for labour and material (Longerich 2010). Hair was collected in concentration camps and the adjacent SS-barber shops, and shipped to designated manufacturers in the Reich to be woven into blankets to be used by German soldiers. In Sachsenhausen, the Soviet occupation forces discovered a wooden crate and several suitcases stuffed with metal dentures (more than forty thousand dental plates) and boxes full of false teeth (more than 240,500 pieces) that were mined for precious metals. The bales of clothes and mounds of glasses, shoes, and human hair that the Allies discovered in camps across Europe were designated for reuse by the war economy. These material remnants have become an iconic shorthand for the Nazi genocide. Rather than mere representations for the violent excesses of the Nazi regime, these materials reveal the logic of an inverted system of value in which

industrial mass murder and labour exploitation were deemed *rational* and *necessary* means to guarantee a new racial order of Europe.

Conclusion

The Third Reich was hardly unique in its attempts to conserve resources – wartime practices in the United Kingdom and the United States serve as interesting cases of comparison (Strasser 1999; Stokes and Köster 2013). What was different in Nazi Germany was the timing. Collection and reuse of scrap was a well-established industry in nineteenth-century America, as illustrated by the work of historian Carl Zimring (2005). However, as historian Susan Strasser argues, "recycling" became the focus of state policies only in the context of war. Even in the thick of the Depression, economic wisdom encouraged consumers to replace their old, outmoded, or broken goods in order to stimulate the economy and protect jobs. In contrast, Germany began to horde, reuse, and recycle in anticipation of and preparation for war. Accordingly, the regime continued to constrict consumption even as the economy recovered (Tooze 2006; König 2004). During the war, recycling in Nazi Germany was not primarily a response to wartime disruptions, but a prime engine for and of war.

Ordinary citizens took out the trash. And yet they did so much more than that. Together with industry, science, and the military, they stretched the Reich's resources for the sole purpose of continuing its murderous destruction. What is more, none of them seemed to have any qualms about it. Cleaning up the mess of war – unlike shooting Jews or Russian POWs – could be catalogued among the "good deeds" of the Germany Wehrmacht. Yet, as I have tried to show in this short excursion, the attempts to restore order were just that – seemingly apolitical attempts to maintain and restore the capacity to wield systematic destruction. A focus on waste and recycling therefore illustrates how deeply the Nazi racial ideology pervaded all aspects of the social order.

While the genocidal implications of waste management in Nazi Germany are specific to this particular context, the seemingly unintentional reproduction of underlying systemic structures are of wider relevance. Recycling is a powerful engine of transformation, and not just in Nazi Germany (MacBride 2013). In fact, today, recycling is imbued with almost mystical qualities. Western capitalist societies embrace and celebrate recycling as if it had the power to save the ailing planet, arrest climate change, and propel the world towards a more sustainable future. Whether or not one recycles has become the litmus test of one's own environmental sustainability, the password that qualifies us for "global citizenship." But

are our celebrations justified? Is recycling really pushing us towards a greener future? Or does recycling instead help us to rationalize the consumption habits of the overproducing countries of the Global North while ignoring the reproduction of systematic inequalities that result from them?

Perhaps it should be obvious that the fetishization of recycling in our own times is hardly politically or ideologically neutral. Here too, the politics of recycling obscure its systemic function. Recycling placates our conscience, confirms the individualism that undergirds our consumption habits, and simultaneously allows us to indulge in the illusion that we are all doing our part. The recycling we so often celebrate in our own times is hardly sustainable. As philosopher Charles Mills so powerfully argues, even though environmentalists talk about waste as "an environmental challenge for an undifferentiated raceless 'human' population," this challenge is disproportionately born and managed by society's "sub-persons," who are not considered part of the "we" the white majority invokes when asking about "what to do with our refuse" (Mills 2001).

The people whose labour ensures the disappearance of capitalism's dirt – waste workers, waste pickers, and scavengers – have become a symbol for the unsustainable, unequal, and environmentally detrimental development of global capitalism. At the same time they are heroes of the championed cure – recycling. But rather than an agent in this story, those who work with garbage have come to represent the marginalized figure *par excellence*. They are generally demoted to mere illustrations of capitalism's discontents (Millar 2012).

However, the valorisation of recycling that speaks to us so powerfully reproduces an aesthetic of poverty in which its eradication is an unquestioned, but highly individualized, possibility rather than a collective social responsibility. Lucy Walker's docu-drama *Waste Land* (2010) is a case in point. Disguised as a documentary, the film follows the Brooklyn-based, Brazilian-born artist Vik Muniz as he travels to the world's largest garbage dump, Jardim Gramacho, on the outskirts of Rio de Janeiro. There he paints the waste pickers, or *catadores*, with the very materials from which they extract their precarious livelihoods. But what awaits the viewer is a melodrama, a carnival. Playing on our associations and emotions, the film introduces recycling as a powerful engine of social transformation and delivers blow by blow the heart-wrenching stories of the remarkable individuals the artist encounters among society's outcasts. When we first see the pickers, they are dirty, lonely, and poor. Vik's art uses the recyclable materials to refashion stories of not waste workers but of resilience and strength, of beauty and truth. What the film fails to address is that the

presumed redemption of the Third World's poor depends on their ability to return the excesses of capitalism to the cycle and disappear the disconcerting sight of ever-proliferating garbage, while we watch the drama unfold in the safety of our living rooms. Literary theorist Peter Stallybrass (1990) suggests that nineteenth-century representations of paupers, criminals, or lumpenbourgeoisie writing and art render the urban poor "a distinct race." This spectacle of difference, Stallybrass argues, sharpened the homogenizing perspective of nineteenth-century observers. Perhaps it does in today's world, too. Placing recycling at the core of our visions for global sustainability suggests that the system is sound, that progress will be achieved, that the planet will be saved – and with it our shopping malls.

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CHAPTER TWO

TURNING TO THE SPECTRE OF WASTE: A HAUNTOLOGICAL APPROACH

LISA DOELAND

Introduction

We are haunted by waste. While we try to stack away our nuclear waste in places which don't change too much and to which – hopefully – no one will ever return, burying and burning "residual" waste, it keeps coming back to us. Not full circle, but in uncanny loops, like the mass of plastic that is taking possession of the oceans, of fish, and of us.[1]

The moment we stop desiring objects they become waste. We use disposable items, minimizing care and saving time. But, of course, these things[2] don't go away. Waste lingers. We act as if things are passive, inert, waiting to come into human consciousness and return to that passive state when we are finished with them. But they don't. They stay, or seemingly disappear and come back later. Waste appears to have a haunting quality. It is beginning to "force thought," as Gay Hawkins puts it, and to force us out

[1] In September 2017, Damian Carrington reported in *The Guardian* on a study commissioned by Orb Media showing that eighty-three percent of tap water from all over the world tested positive for microplastics. A later study, also commissioned by Orb Media and published in March 2018, showed that bottled water contains even more microplastics than tap water – ninety-three percent

[2] I cannot explore the "thingness" of waste here. In "Thing Theory," Bill Brown remarks that "we begin to confront the thingness of objects when they stop working for us: when the drill breaks, when the car stalls, when the windows get filthy … The story of objects asserting themselves as things, then, is the story of the changed relation to the human subject and thus the story of how the thing really names less an object than a particular subject-object relation" (2009, 140). Although Brown doesn't explore this, one could argue that we encounter the thingness of things in their becoming waste. For an extensive philosophical exploration of "things" see Bill Brown's *Other Things* (2015).

of what she calls "presentism," a temporality that is characterized by the denial of the time to come and the idea that everything is available here and now.[3]

Both the practice and the theory of waste are haunted by the spectre of Mary Douglas's notion of dirt as "matter out of place." In *Purity and Danger* (1966), Douglas characterizes dirt as relative. Nothing is dirty or filthy in an absolute sense. She famously asserted that where there is dirt, there is a system; namely, that dirtiness (and cleanliness) implies a social praxis and a social order. Dirt is thus a by-product of the ordering and classification of matter (Douglas 2002). By taking out the trash, we rid ourselves and our homes of things that are potentially harmful and might make us ill, both literally and figuratively. Taking out the trash is also a cleansing ritual that we perform to maintain a healthy (sense of) self or, as Italo Calvino puts it in his seminal essay on taking out the trash, as a rite of purification: "Taking out the *poubelle* should thus be interpreted simultaneously (since this is how I experience it) as a contract and as a rite … Only by throwing something away can I be sure that something of myself has not been thrown away and perhaps not be thrown away now or in the future" (2009, 71).

Douglas's definition of dirt, however, seems too narrow when applied to modern waste. We still sort our trash to maintain our *selves*; however, in consumerist society, disposability has become an intricate part of the cycle of production and consumption. This disposability was first theorized by Vance Packard in *The Waste Makers* (1960) and related to the "planned obsolescence" of the 1920s and 1930s. In *An Ontology of Trash: the Disposable and its Problematic Nature*, Greg Kennedy digs deeper into this becoming disposable of things, signifying "trash" as a uniquely modern species of waste that refers not so much to "subjective, relative devaluation," but "unconditional, absolute devaluation" (2007, 10). Modern waste (or "trash," if we follow Kennedy) is not, then, so much about the (relative) dirty–clean binary, but about the (absolute) waste–value binary.[4] Douglas's definition of dirt as "matter out of place" also falters because, nowadays, we

[3] Guy Hawkins used this term in her keynote lecture at the Opening the Bin workshop in Lund on April 27, 2017. Hawkins sketched the emergence of single-use reality through the rise of plastic packaging during the second half of the twentieth century. This transition, from durability to disposability, provoked "presentism." According to Hawkins, it is this distinct temporality that is characteristic of the "waste society" we currently live in.

[4] This "waste-value binary" is, of course, central to consumerist capitalism. Waste and wasting as a prerequisite of capitalism, as well as the way in which capitalism depends on turning everything into a resource, including why late-capitalism dreams of a zero-waste and circular economy, is something to explore.

find waste everywhere. A neat demarcation between waste and non-waste becomes increasingly difficult to manage as nuclear waste leaks, oil spills, smog smothering, and microscopic bits of plastic – the embodiment of modern waste – roam the earth, penetrating the soil, the sea, and our bodies.

Although modern waste cannot be fitted neatly into Douglas's dirty–clean or in-or-out-of-place binary, her definition does help us to grapple with the essential relativity of waste and the way in which it comes to be, both *in* and *through* our relating to it. In the things we call waste, there is nothing essential that determines these things' wastefulness. As Kennedy puts it: "Trash signifies an attempt to render absolute the essential relativity of waste and thereby answer its central problem of intrinsic ambiguity" (2007, 1). Waste muddies our sense of *being* and of being *present*, and invites us to formulate an ontology of waste that is not so much about essence and presence but about being-with and living-with.

Insofar as ontology is concerned with the *being* of things, it is insufficient to grapple with waste-things. In being ambiguous and undecidable matter, muddying our sense of essence and presence in a spatial, temporal, and categorical sense, we need a hauntology of waste, not an ontology. In *Being and Time*, Heidegger construes Dasein (Da-sein, there-being) as a distinctive mode of being reserved for humans. Only humans know what it is to *be* and are truly "*da*." Drawing on Jacques Derrida's hauntology – being (present) *as* being haunted – and on Timothy Morton's extension of Dasein to *all* things, I will argue that the haunting quality of waste points to our *way of relating*, something we seem to have forgotten.[5] The consequence of that forgetting is waste. But, most of all, we have forgotten that we are not the only ones doing the relating.

There is a photograph by Justin Hofman called "Sewage Surfer" (2017) depicting a seahorse that has taken hold of a cotton bud, which now functions as a stable anchor in the ocean currents. This does not fit with our intended use of cotton buds. Hofman took this photo in the Indonesian archipelago. On Instagram he writes how this "opportunity to photograph a cute little seahorse, turned into frustration and sadness as the incoming tide brought with it countless pieces of trash and sewage," and he then concludes that "this photo serves as an allegory for the current and future states of our

[5] Greg Kennedy makes a similar point in his *The Ontology of Trash*. His conclusion that trash "conceals and dissembles the interdependence of all beings" (2007, 155) is akin to the one I am drawing here, namely that waste reminds us of our "being ecological." Kennedy, however, stays to close to Heidegger, blaming disposability on technology, which supposedly promotes an uncaring way of being and "expels things of their essence" (2007, 155). When we take ontology as *hauntology*, we can neither hold on nor refer to (stable) essences.