Discarding well?

Intersectionality and grassroots waste innovations in the UK

Cat Acheson

Submitted for the degree of Doctor of Philosophy, School of Environmental Sciences, July 2024.

Abstract

Waste is a major global challenge. Current systems of linear resource use and disposal have resulted in ever-growing quantities of waste, which are increasingly toxic and complex. This is having severe effects on the biosphere and climate. Furthermore, the waste crisis is reflective of deep social injustices, from the exporting of toxic waste to the discarding of marginalised lands, bodies, and human needs. Existing growth-driven strategies for managing waste, including the circular economy, are failing to address the scale of these challenges. Alternative strategies are needed which confront the multiple systems of oppression underpinning the waste crisis. This thesis explores intersectionality and discard studies as promising fields for developing transformative responses to waste. Grassroots innovations are investigated as potential vectors for such transformative responses in the UK.

First, an interview-based mapping study was carried out with 19 interviewees active in GWIs or mainstream waste institutions. The mapping study establishes the extent to which GWIs are engaged with intersectionality, and explores what intersectional approaches can look like. Second, two in-depth case studies were carried out, using a mix of qualitative methods to explore the dynamics of, and challenges for, intersectional GWIs in greater depth.

By combining discard studies and intersectionality to form a novel conceptual framework, this thesis finds powerful examples of how GWIs challenge predominant understandings of waste, and develop alternative strategies for "discarding well" in ways which mitigate intersecting environmental and social harms. By reusing, redistributing, and reinventing relationships with discards, GWIs mobilise resistance against oppressive societal narratives about what (and who) counts as having value – narratives which are inseparable from class, gender, race, citizenship status, heteronormativity, and other axes of power and oppression. Although GWI strategies for discarding well remain imperfect, the findings illustrate the radical potential of the grassroots for addressing the waste crisis.

Access Condition and Agreement

Table of contents

List of Figures

List of Tables

Acknowledgements

I would first like to extend my gratitude to everyone who took part in this research and made it what it is. I would especially like to thank the staff and volunteers of Govanhill Baths Community Trust, Bloody Good Period UEA, and the people in their wider communities who shared their time, insights, and good company with me. Thank you for welcoming me into your spaces. I have been inspired and educated by the work that you do.

I would like to thank my UEA supervisors, Tom Hargreaves, Helen Pallett, and Gill Seyfang, for bringing this project into existence in the first place and encouraging me to apply, and for your constant support, constructive feedback, and calming presence throughout this process. Your unwavering belief in the value of my work has kept me on course even when I doubted everything. Thank you also to my supervisors from Norfolk County Council, Alun Housago and Joel Hull, for your kindness and encouragement, for sharing your insider knowledge, and for being so open-minded and curious about my work.

To my colleagues and friends in the 3S research group, School of Environmental Sciences, and wider UEA community, thank you for giving me an intellectual home over the past three years. It's the people who make UEA, and our shared culture of solidarity, support, and craic is alive and well in spite of difficult circumstances over the past few years. I am especially grateful to Nickhil Sharma, Tasha Senior, Alice Stuart, Vini Pereira, Clara Kubler, Marina Nicolaidou, Olivia Thompson, Sean Irving, Phedeas Stephanides, Elliot Honeybun-Arnolda, and many others in ENV and across UEA for making this a special and unforgettable time in my life. Special thanks to Sara Skarp, for paving the way for me to do this research on grassroots waste innovations, and for being such a wise and generous friend and co-conspirator. Thank you also to Hannah Hoechner for repeatedly dropping everything to help me out whenever I needed it, and for all the advice and support with navigating academia, politics, and the complexities of life.

For four months during this PhD, I was fortunate enough to visit the School of Interdisciplinary Studies of Culture at the Norwegian University of Science and Technology. This was a transformative experience in so many ways. I would like to thank Jennifer Branlat and Tomas Moe Skjølsvold for facilitating the visit, and everyone in KULT for being so welcoming, especially Birgitte Nygaard and Maja Urbanczyk.

I am grateful to the many writers, thinkers, activists and community leaders whose ideas have shaped not just this thesis, but also the values I try to live by. There are too many people to name, but I would

In memory of Dr Aaron McConville

"An incomparable loss has been touching the wider world, growing with each news report we hear, during my lifetime. Somehow I had always viewed that loss of wild things as being unrelated to the loss in my homeland, as though they could not really be spoken of in the same breath. But I had started to feel an ache, a deep sorrow, when I began to see it all in the clear light of day. How interconnected, how finely woven every single part of it all was."

       (Ní Dochartaigh 2021: 20).

"We've heard it, we've heard all about all the sticks and spears and swords, the things to bash and poke and hit with, the long, hard things, but we have not heard about the things to put things in, the container for the thing contained. That is a new story. That is news."

       (Le Guin 2019: 29).

"[T]he connection between scaling up and the advancement of humanity has been so strong that scalable elements receive the lion's share of attention. The non-scalable becomes an impediment. It is time to turn attention to the non-scalable, not only as objects for description but also as incitements to theory."

       (Tsing 2015: 38).

"I don't need your help. I just need you to recognise that this shit is killing you, too, however much more softly, you stupid motherfucker, you know?" (Fred Moten quoted in Dabiri 2021: 130).

Chapter 1: Introduction

In early 2023, posters appeared on the London Underground encouraging London residents to recycle their waste. The poster, commissioned by London Recycles, showed two individuals looking nonchalant, and displayed the words: "Got a water bottle 'because turtles'. Doesn't 'believe in' recycling. Recycling keeps plastic out of nature. Don't be <u>that </u>person. <u>Recycle."</u> The jumbled messaging and confusing imagery on the poster garnered ridicule on X (formerly Twitter), as well as dozens of comments from internet users trying to decipher what the hell the poster was trying to say.

"Do the words and image in this ad make cohesive ideas to anyone else? Am I having a stroke?" Asked X user @sophie_from_mars, who posted a photograph of the poster (Figure 1.1, Sophie From Mars et al. 2023).

"It kind of sounded like they're saying you should NOT get a reusable water bottle and should instead buy recyclable ones and trust that the recycling system is perfect. Which seems like an ad written by Nestlé", responded @Leftoad.

"Got it. No longer refilling my sturdy will-last-for-years water bottle. Converting to single-use Aquafinas solely for the purpose of having something to recycle. The turtles thank me in advance", quipped @AshokaKnows.

Others took the opportunity to point out that recycling is not all it's cracked up to be. "To me it's implying that he thinks that waste facilities aren't actually doing any recycling, which is sometimes true", wrote @AllForThe6_4 – an astute commentary, but no doubt *not* what the London Recycles PR department had intended to be the takeaway message of the poster. User @AlGlazyrin was even more blunt: "Maybe the businesses that ran the 'recycling' scam are losing money after the reports that all they do is send everything to other countries to be dumped or burned."

Another user, @MhairiConcerned, picked up on the subtle classism behind the choice of image depicting *<u>that</u> person:* "People in tracksuits just do not understand...".

Figure 1.1. Photograph of London Recycles promotional poster and post on X by @sophie_frm_mars

The London Recycles poster campaign – deserving of criticism for its bizarre bungling of the English language as much as anything else – may have been a fleeting source of amusement which quickly faded into the background noise of social media. But the poster campaign and the reaction it provoked accurately capture the general anxiety, confusion, thwarted good intentions, scapegoating, prejudice, and obfuscation of corporate interests which characterise the issue of waste in the Global Minority[1] world in the 2020s. Furthermore, each one of the critiques made by the X users quoted above speaks to

---

[1] I use the term "Global Minority" to refer to what is typically known as the Global North, and specifically white sections of the population in the Global North. "Global Minority" is the counterpoint to "Global Majority", which refers to Black, Indigenous and people of colour in what is commonly referred to as the Global South, as well as racialised minority groups in the Global North. Use of this terminology is advocated by some scholars as a way of subverting the othering which implicitly occurs in conventional terminology about race, which reinforces whiteness as the default (Campbell-Stephens 2021). I have tried to use Global Majority / Minority terminology throughout this thesis, but I have not always been consistent, as sometimes other terms like "women of colour" were a better fit for the context of a specific point.

a set of issues which are at the heart of this PhD thesis on the need to radically transform waste systems.

In this introduction, I outline the core starting points of this PhD thesis. The first of these is unlikely to be surprising or controversial: the world is experiencing severe and accelerating environmental and social crises as a result of modern waste and the systems of resource extraction, production, and consumption which give rise to it. However, I take three additional positions on waste which depart from common assumptions about why the waste crisis[2] is occurring, and where the solutions lie. I argue that waste must be understood as an intersectional issue, which brings to the fore multiple overlapping systems of power and oppression, and which requires the development of intersectional solutions. Next, I argue that this critical moment for confronting excessive waste and systems of discarding requires a new reckoning with what waste *actually is.* Lastly, this thesis takes the position that action at the grassroots level, and specifically grassroots innovations, have an important role to play in developing interventions to the waste crisis which are intersectional, disruptive, and more likely to deliver social and environmental justice. In what follows, I introduce each of these core starting points, and situate my research in relation to them. I then outline the central aims of this thesis and my three research questions, and provide an outline of the rest of the thesis.

1.1. Resources, waste, collapse?

There can be no doubt as to the magnitude and severity of modern waste. Total global waste arisings in 2017 stood at 20 billion tonnes, and are projected to increase to 46 billion tonnes by 2050 (Maalouf and Mavropoulos 2023). Non-metallic minerals (e.g. cement, bricks, sand, gravel, and glass) are by far the largest category of global waste at 53% of total global waste arisings, followed by tailings from ore processing at 25%, and biomass (e.g. forestry and agricultural waste) at 15%. Municipal solid waste – a category which typically includes household waste, some commercial waste and some construction and demolition waste as well as medical waste (Liboiron and Lepawsky 2022: 9) accounts for a comparatively

---

[2]There is no single "waste crisis" that is experienced the same way by all people (Liboiron and Lepawsky 2022: 97-123). I use this terminology only for convenience and as a shorthand for the many interlocking social and environmental crises associated with waste, which are experienced very differently depending where in the world you are, and the various forms of privilege or vulnerability which intersect in your life.

small share of total global waste arisings, at 2.29 - 3.13 billion tonnes.[3] However, the rate at which MSW is growing is deeply alarming: an estimated 30 – 50% increase from 2004 – 2019 (Maalouf and Mavropoulos 2023). MSW is projected to grow by a further 25%-45% from 2019 – 2050 (ibid). As waste volumes increase sharply, safe and sustainable waste disposal is an urgent challenge. Currently around 37% of global waste is disposed of in landfills, 19% undergoes some form of recycling or materials recovery, 11% is incinerated, and 33% – a third of all the world's waste – is dumped in the open environment (Kaza et al. 2018: 18).

The dumping of waste into streets, natural habitats, waterways, and oceans generates immense public concern – though this concern tends to coalesce around types of waste which fall into the category of post-consumer or household waste (part of the category MSW), with industrial wastes receiving considerably less political and media attention (Liboiron and Lepawsky 2022). Alarm is growing over the accumulation and ubiquity of plastic debris and microplastic in the oceans, topsoil, and animal and human bodies, and the impacts of plastic waste and Persistent Organic Pollutants on food safety and health – impacts which are potentially substantial but are still poorly understood (Liboiron 2016, Parker 2020, Liu et al. 2023, Wiesinger et al. 2017). E-waste and textiles are also receiving increasing attention, reflecting the rapid growth of the fast fashion and electronics industries (Heacock et al. 2015, Rashid et al. 2023). A similarly alarming issue is agricultural and food waste, with an estimated one third of all food produced going to waste, much of it before it enters the market (Kaza et al. 2018: 30-31, FAO 2015). The accumulation of uncontrolled waste in the open environment generates so much anxiety and revulsion that it is sometimes portrayed as a synecdoche for the moral decline of humanity itself (Hawkins 2006).

Waste cannot be separated from wider systems of extraction, production and consumption; processes which are rapidly accelerating and far exceeding the Earth's ability to replenish the resources extracted and absorb the waste produced. According to the International Resources Panel, the extraction and processing of material resources[4] is responsible for 60% of climate change impacts, and 90% of biodiversity loss (UNEP 2024). This has profound consequences for livability on Earth. As Richardson et al. (2023) demonstrate, six out of the nine planetary boundaries which connote the "safe operating

---

[3]Depending on the calculation method used.

[4] The statistics include fossil fuels (coal, oil, and gas), minerals (e.g. iron, aluminum and copper), non-metallic minerals (e.g. sand, gravel), biomass (agricultural crops and forestry), land, and water (UNEP 2024).

space for humanity" (i.e. the conditions in which humanity can safely survive) have now been exceeded. As the Earth rapidly exceeds 1.5 degrees of global warming, this increases the risk of crossing irreversible "tipping points" in Earth system functioning, beyond which further breakdown of the climate and earth systems will be self-perpetuating (Armstrong McKay et al. 2022). Waste is an integral part of this picture – not just because it is the end-of-pipe product produced by these systems of extraction, production, and consumption, but because when resources are wasted, this drives demand for further extraction, production, and consumption: a vicious cycle which connects the contents of the world's landfills with the impending collapse of the most vital Earth systems (Gregson 2023).

The waste crisis also reflects severe global inequality. High-income countries use six times more materials than low-income countries (UNEP 2024: xiv), and generate 34% of global waste, despite accounting for only 16% of the global population (Kaza et al. 2018: 20). Although total quantities of waste are projected to increase the most in lower-middle income countries to 2050, per capita waste generation will continue to be dominated by high-income countries[5] (Figure 1.2., Kaza et al. 2018: 24-28). Those who contribute the least to waste problems bear the brunt of its impacts. Low-income countries lack effective infrastructure for waste management, meaning that 93% of waste is dumped, compared to just 2% of waste being dumped in high-income countries (Kaza et al. 2018: 18).

Low and lower-middle income countries receive substantial waste exports from wealthier parts of the world, overwhelming their capacity to deal with waste safely. Hazardous wastes, including industrial ore tailings, fuel, hydrogen sulfide, and chemical pesticides such as dichlorodiphenyltrichloroethane (DDT), but also everyday items such as batteries containing acid, cleaning products, and paints, are exported to the Global Majority world (e.g. Côte D'Ivoire, Tanzania, Ghana) for storage and disposal, as multinational corporations take advantage of low-income countries' less stringent environmental protection laws and weaker financial position (Pope 2017, Pratt 2011, Balayannis 2020, Adeola 2000). Hazardous waste causes substantial harm to environmental and human health due to its inadequate containment and leaching into the environment, groundwater, air, and food supply (Pratt 2011, Balayannis 2020). Increasingly, waste from electronic devices (e.g. phones, computers and tablets), which contains

---

[5] Low-income countries are defined as countries where per-capita Gross National Income (GNI) is $1,025 or less. Examples of countries in this category include Senegal, Niger, Mali, the Democratic Republic of Congo, Afghanistan, and Nepal. Countries are then grouped into lower-middle, upper-middle, and high-income countries. Lower-middle income countries include India, Indonesia, Bangladesh, Vietnam and the Philippines. Examples of high-income countries, where per capita GNI is $12,476 or more, include the UK, USA, Canada, Germany, France, Australia, and Saudi Arabia. (Kaza et al. 2018: 7).

hazardous chemicals including lead, mercury, cadmium and chromium, is being exported to the Global Majority world where it is traded – often illegally – and processed without adequate environmental protections, for example through highly polluting incineration to recover constituent parts (Njoku et al. 2024, Pope 2017: 330). Plastic waste, which is difficult and costly to recycle, is also exported in large volumes from the Global Minority to the Global Majority. There has been a huge spike in these exports to Thailand, Malaysia, Vietnam, and elsewhere in Southeast Asia after China's 2018 ban on accepting plastic waste exports (Gregson and Crang 2019). Impacts on local populations include contaminated water, crop die-off, and respiratory illnesses from exposure to fumes from plastic incineration (GAIA 2019b). The movement of hazardous wastes from high-income to low-income regions is indicative of serious environmental injustice (Adeola 2000), and has been termed "waste colonialism" (Pratt 2011). Inequitable exposure to harmful waste also occurs within higher-income countries. Racialised minority groups and working-class communities are disproportionately exposed to waste processing and disposal sites, as well as air pollution from incineration (e.g. Pellow 2004, Bloch and Quarmby 2024, Bullard 2020).
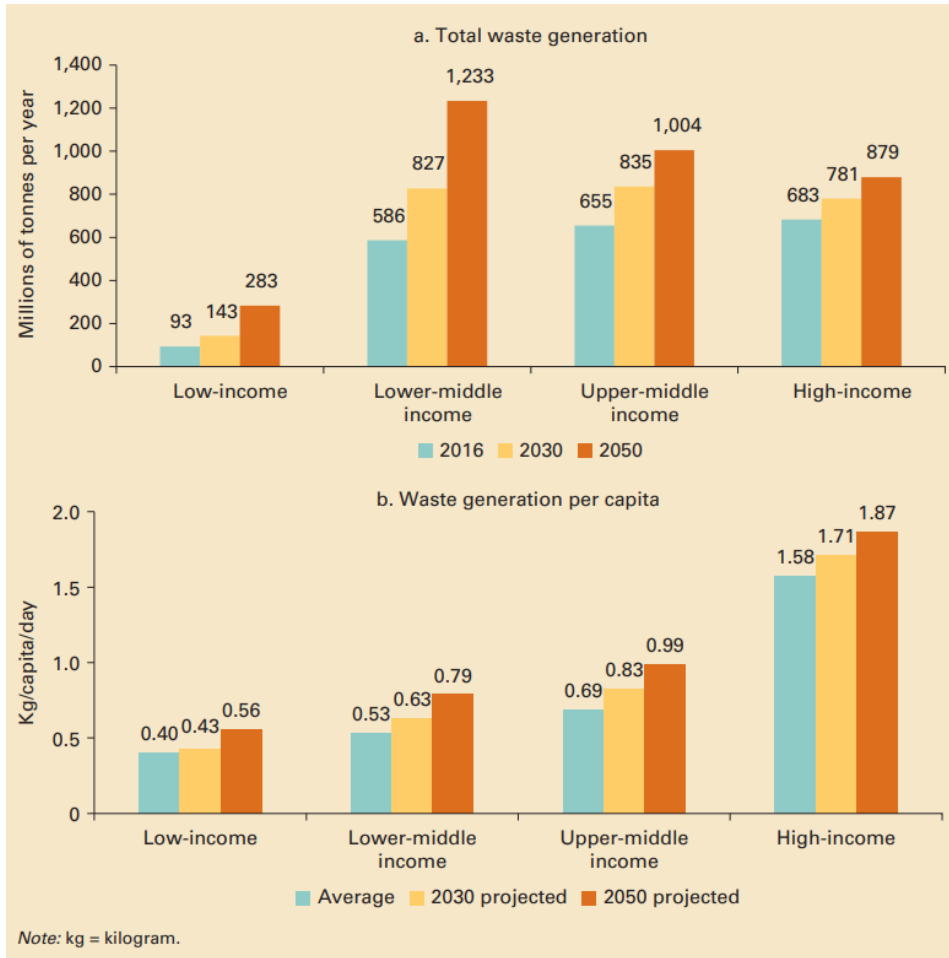
Figure 1.2. Projected waste generation by region, showing total waste generation and waste generation per capita per day.

Source: Kaza et al. 2018: 28.

There is broad political consensus that change is urgently needed. The concept of "sustainable consumption" as a global policy aim emerged at the UN Rio Earth Summit in 1992, which recognised the need to tackle over-consumption in high-income nations to allow for equitable economic development within planetary limits, without impinging on the needs of future generations (Seyfang 2009: 2). Global agreements and policy commitments have followed over the years, including the UN Agenda for Sustainable Development in 2015. This includes Goal 12, "Ensure sustainable consumption and production patterns", and its specific sub-goals focused on waste: "Halve per capita global food waste", "Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle in accordance with agreed international frameworks, and significantly reduce their release to air, water, and soil", and "Substantially reduce waste generation through prevention, reduction, recycling and

reuse" (United Nations 2015: 24). Global climate change mitigation commitments – notably the Paris Agreement of 2015, in which 196 countries pledged to limit global warming to 1.5 degrees above pre-industrial levels – have further underscored the need to change the way resources are produced and consumed, and the commitment, in theory, of governments to achieving this.

International and national strategies for reducing the impacts of resource extraction, production, consumption, and waste typically favour the idea of transitioning to a "circular economy" (e.g. the EU Circular Economy Action Plan (European Commission 2020), the current Waste and Resources Strategy for England (UK Government 2018), and Scotland's Circular Economy Bill (Scottish Parliament 2024)). Chapter 2 provides a more detailed analysis of popular conceptions of the circular economy. Efforts have also been made to mitigate the harm caused by the world's already existing waste. The 1989 Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal established tighter regulations for the global trade in toxic waste (but stopped short of putting forward a waste minimization programme or a complete ban on exports of toxic waste) (Pope 2017). Negotiations are currently underway to finalise and ratify a Global Plastics Treaty, which would provide a framework for tackling the discharging of plastic into the environment and establish an effective "circular economy for plastics" (Environmental Investigation Agency et al. 2020, Landrigan et al. 2023). At the time of writing, civil society groups are raising concerns that reducing primary production of plastic is not being given adequate consideration in the Treaty negotiations (Break Free From Plastic 2024, WWF 2023).

These rhetorical and policy advancements have not resulted in an actual reduction in material throughput and total waste arisings, which, as we have seen, have grown significantly over the past decade and a half, and are projected to continue to do so well into the future (OECD 2019, Maalouf and Mavropoulos 2023). Efforts to curtail the impacts of waste on ecosystem and human health, and on equity and wellbeing, will inevitably fail to deliver substantial and lasting effects in this scenario. This means that existing strategies for reducing the harms of waste are wholly inadequate for the scale of the problem, and more effective solutions are needed. There is equally a need for new research which can help to identify more effective waste interventions. My thesis takes up this challenge, and moves beyond dominant existing approaches to tackling waste, arguing that the waste challenge must be understood as intersectional, and that interventions must be developed which offer something far more transformative than what has been on the table so far.

1.2. Modern waste as an intersectional crisis

This thesis argues that the modern waste crisis is fundamentally intersectional. Dominant approaches to tackling waste do not treat it as such, and this is a serious limitation of existing waste reduction paradigms. The rapid growth in the quantity of global waste is commonly attributed to two factors: population growth and increasing economic development (e.g. He et al. 2022, Chen et al. 2020, Kaza et al. 2018). The assumption behind this is that the problem lies with people: with people's supposedly innate desire to access more affluent (and wasteful) ways of life, and with the rising birth rates of *specific* groups of people, notably Black and brown people in the Global Majority world. This surface-level explanation ignores vitally important dimensions of the waste challenge. Intersectionality provides a more nuanced and useful lens for understanding the waste challenge in all its complexity. A full overview of intersectionality as a (set of) theory(ies) will be given in Chapter 2. For now, intersectionality can be interpreted as the way in which multiple systems of power and oppression interact with each other to produce particular outcomes in different contexts, with contrasting impacts for individuals depending on the various identities and marginalisations they experience (Davis 2008).

There are multiple, non-exhaustive ways to analyse waste from an intersectional perspective. For the sake of brevity, I will focus on three here. First, waste is driven by production and consumption paradigms which have their roots in colonialism, white supremacy, and racial capitalism. Second, modern waste systems are underpinned by power relations based on classism, casteism, ethno-nationalism, patriarchy, and other oppressive dynamics, which determine who is made responsible for the "dirty work" of waste management, and who is exposed the most to waste-related harms. Third, people's relationship with consumption and discarding is shaped by ideologies, values, and norms of behaviour which are in turn shaped by overarching systems of power and oppression.

Taking up the first point, present-day patterns of production and consumption have been shaped by historical colonialism and ongoing neo-colonialism, and the constructed racial hierarchies which intersect with this. Historically, European expansion into the Americas, Oceania, Asia, and Africa, and the subjugation or genocide of the indigenous populations, cleared the way for the extraction of natural resources on an unprecedented scale, and this was further made possible by the enslavement and forced labour of millions of Africans (Andrews 2020, Patel and Moore 2017, Fuller et al. 2022). Integral to this process was the racist construction of Black subjects as inhuman and extractable matter (Yusoff 2018). Plantation slavery was a new socio-technical system, which allowed for the large-scale extraction of valuable commodities including gold, tobacco, sugar, and cotton, and this accelerated the

development of global trade and mass consumer markets, contributing to the creation of conditions that led to the industrial revolution in the nineteenth century and the resource-intensive market economy we see today (Andrews 2020: 59-60; Yusoff 2018: 33-40; Higman 2000). As Rodney (2018) has argued, these colonialist dynamics also resulted in a deliberate "underdevelopment" of colonised regions (specifically in Africa), to maintain a supply of cheap resources which are exported to European and American economies, and turned into mass-produced commodities which are then sold back to Global Majority communities at an inflated cost.

Colonial dynamics also persist today through the influx of single-use consumer commodities to regions which lack the infrastructure to process the huge spike in resulting waste. Fuller at al. (2022) have written about this in relation to the imposition of Coca-Cola (the world's biggest producer of plastic pollution (Vandenberg 2024)) and ultra-processed food products wrapped in single-use packaging to Small Pacific Island nations. This not only leads to the build-up of plastic and other packaging waste, but also undermines local economies and food sovereignty, and enforces dependence on multinational corporations for subsistence. In addition, the capacity of communities in some developing economies to safely manage growing quantities of waste has been undermined by structural adjustment policies – conditions imposed on loans by the International Monetary Fund and World Bank, which encourage privitisation of essential services (e.g. in Mali (Braun and Traore 2015) and Ghana (Habib 2007)). These policies are often perceived as a form of neo-colonialism by citizens (Schipani and Adeoye 2024, Udegbunam 2020). These brief examples, while not the main focus of this thesis, demonstrate the impact of racial capitalism and historical and ongoing colonialism and neo-colonialism on the accelerating challenges of modern waste.

Intersectionality also sheds light on how certain groups of people perform specific roles within dominant waste systems, often because of the multiple marginalisations they experience. Gender, class, caste, and race are key factors in determining which communities perform the majority of labour involved in processing, sorting, and recycling or revaluing the world's waste. Often, people from marginalised racialised groups, low-income women facing different forms of gender-based discrimination, and those considered to be of a lower class or caste status in specific contexts take on the bulk of hazardous and undervalued labour (e.g. Millar 2020, Wittmer 2021, Anantharaman 2014). Vergès (2021: 1-3) has written about the key role played by migration, gender, class, and age in determining who "clean[s] the world". She writes that it is predominantly older, migrant women from the Global Majority who sanitise

and remove waste in the sleek urban centres of Europe and the rest of the Global Minority world, from train stations to offices. Their low wages, lack of labour protections, and disproportionate exposure to chemicals and other waste related harms are reflective of how gender inequality, racism, colonialism, and ethno-nationalist structures are all embedded in the functioning of contemporary capitalism and the processing of capitalism's dirt and waste (ibid., Vergès 2019). In spite of the central and valuable role played by marginalised communities in managing the waste of the world, these same groups are often also blamed for being the *cause* of waste and unsanitary conditions (Anantharaman 2014, Baviskar 2011, see Chapter 5). The classist, racist, and ethno-nationalist prejudices behind these assumptions serve to obscure the dynamics of extractive capitalism, neo-colonialism, and the actions of corporate and industrial actors in driving waste crises. An intersectional lens helps to illuminate these dynamics.

Finally, an intersectional lens sheds light on how people's relationship with consumption and waste is also shaped by complex power structures which manifest in particular sets of ideologies, values, and norms of behaviour. This is best illustrated through an example. In a 2015 study, Braun and Traore analysed plastic bag waste in Mali, and how Malian women – the primary users of disposable plastic bags – navigate intersecting systems of gender, socioeconomic status, and post-colonial visions of aspirational modern lifestyles. The study found, on the one hand, that many women viewed the use of plastic bags as empowering, because it represented a modern consumerist identity and resistance to conservative patriarchal gender roles. But on the other hand, the proliferation of plastic bags in Mali also had negative impacts on women: it undermined the livelihoods of women who made hand-woven baskets, and placed an additional financial burden on women traders who were now expected to purchase plastic bags and provide these to customers for free. Women consumers were also scapegoated by government officials for plastic bag pollution – distracting from structural issues such as the lack of effective waste management infrastructure and the decision to import plastic bags into the national economy in the first place. Whilst Braun and Traore do not explicitly use intersectionality as a framework, their study demonstrates intersectional thinking in its analysis of the complex ways that gender, class, capitalism, and post-colonial context interact in a specific case, illuminating deeper and more multidimensional insights on the issue of plastic bag waste.

I have shared these brief examples to demonstrate the necessity of understanding waste as an intersectional issue. Evidently, it is not enough to say that increased waste, and the increasing toxicity of waste, are a natural and inevitable result of population growth, economic development, and people's innate desire to consume. There are far more complex – and interesting – systemic factors at work.

Recognising that waste is an intersectional problem underscores the need for intersectional solutions, which account for the ways that multiple systems of power and oppression are implicated in current patterns of resource consumption and waste, and which seek more socially just outcomes across multiple axes (e.g. gender, race, class, colonialism, migration). Yet, existing strategies for managing and reducing waste in order to address its substantial environmental and social harms have largely failed to understand waste in this way, and this is a key reason for their overall lack of success. Research which investigates what intersectional responses to contemporary waste challenges can look like is therefore urgently needed. This is a core impetus for my research.

1.3. Rethinking the matter of waste

The development of transformative and effective ways of confronting waste requires a fundamental rethinking of waste itself. Waste has complex social and material qualities, which have not been accounted for in dominant approaches to waste reduction and management, nor indeed in dominant philosophical perspectives on what waste *actually is*. In this thesis, I therefore take up the challenge posed by the emerging field of discard studies, of rethinking the matter of waste (Liboiron and Lepawsky 2022, Liboiron 2016).

There are three main ways that this thesis rethinks the matter of waste. First, waste is not neutral: it cannot be disentangled from systems of power and oppression. This point has already been covered in the preceding section, through the lens of intersectionality (Section 1.2). Second, waste cannot be reduced to either an economic resource or a civilisational threat (Skarp 2021), but instead needs to be understood as having agency and more-than-human complexity. Third, contrary to notions that society can create "zero waste" systems[6], waste cannot be eliminated entirely. Instead, dominant systems of discarding should be altered, so that they *discard well* instead of discarding harmfully. I will now briefly address each of these in turn.

---

[6] For example, the NGO Zero Waste Europe campaigns and produces policy guidance, and developed the "Zero Waste Hierarchy" tool which I introduce in Chapter 4. I mention this example not to discredit the work that they do, much of which aligns fully with the positions I take in this thesis (e.g. they are pushing for a reduction in primary plastic production to be included in the Global Plastics Treaty through the #BreakFreeFromPlastic campaign (Break Free From Plastic 2024)). Nevertheless, their conceptual framing of efforts to mitigate the harms of modern waste still merits critical examination.

Firstly, there is a need to move beyond limited conceptual frameworks which position waste as either an economic resource or a civilizational threat. As I will explore further in Chapter 2, dominant waste reduction paradigms, including the policy approaches already mentioned in this introduction, view waste as an ecological and social blight which is primarily a product of technological and market inefficiencies and poor consumer behaviour. It is assumed that waste can be done away with by finding ways to convert it into an economic resource, and then getting consumer buy-in. This is the logic underpinning mainstream circular economy strategies (Hobson 2021, Hobson and Lynch 2016). Less attention is given to forms of waste which cannot be revalorised, but it is assumed that this non-commodifiable waste can always undergo some form of managed disposal. This presupposes that waste is a "manageable object" through which human beings act upon the world; either in the form of inflicting pollution, or in the form of governing the environment and society through waste's revalorisation or removal (Moore 2012, Hawkins 2006). Another, somewhat diverging, conceptualisation of waste which has had significant influence on academic discourses is the "structural symbolic approach" (Reno 2015). This is the idea that waste has no fixed properties, but is instead reflective of whatever constitutes "matter out of place" in any given system – the things deemed abject, unacceptable, and threatening to the purity and integrity of the system and to civilisation itself (Douglas 1966). There is thus a dichotomy of waste as resource and waste as threat, which dominates popular discourses on waste.

Although these two dominant conceptualistions of waste – as an economic resource or symbolic civilisational threat – may seem opposed at first glance, they have in common the idea that waste is defined and controlled exclusively by humanity and human-made systems. In this thesis, I reject this premise. Following perspectives on waste from discard studies and science and technology studies, I am interested in how waste has afterlives and material realities which supersede human control. As Liboiron (2016) argues, the emergence of new forms of waste, such as plastics and Persistent Organic Pollutants, necessitates such a rethinking. Furthermore, discards have complex relations with other more-than-human entities, including other species and the environments or habitats they are entangled with (De Wolff 2017, Reno 2014). Waste enters and alters not only the environments in which all life exists, but also alters human and more-than-human bodies (Arnall and Kothari 2020, Murphy 2017). This means that waste impacts people, as much as people impact waste. Rethinking waste in this way raises new and important questions about how best to respond to the agency and complex materiality and more-than-human relations of waste. In this thesis, I therefore frame my enquiry not just in terms of what people are doing to impact and reduce waste, but in terms of how people develop ways of living

with and through waste, and what the implications of these innovations may be for more socially just futures (see Chapter 6).

Finally, waste *cannot be eliminated.* This important idea is discussed by Liboiron and Lepawsky (2022), who maintain that sorting and discarding are processeses through which all systems – whether they are deemed "good" or "bad"— hold together. Discarding is therefore not inherently immoral or indicative of failure. It is, however, always reflective of power relations. Later in this thesis, drawing on two ethnographic case studies, I will explore how specific systems of discarding result in oppressive outcomes; not only for the material stuff which is thrown away, but also for the communities and people who are deemed to be disposable under a given system (see Chapters 5 and 6). In writing about how grassroots groups develop innovative approaches to waste in these respective contexts, I am not claiming that it would be possible or desirable for these groups to eliminate waste. Instead, I take up Liboiron and Lepawsky's (2022) notion of "discarding well" (125-152). New practices and paradigms of discarding need to be developed, which instead of reproducing the intersecting oppressive structures and social and environmental harms of current systems of discarding, discard in ways which have positive outcomes for social and environmental justice. I do not explore these possibilities from a utopian perspective – I agree with Liboiron and Lepawsky that universally positive and complete outcomes cannot be realised, even when new systems of discarding are developed which are significantly more just (ibid. 138-152). However, this thesis takes the position that better, more just, and more liberatory ways of discarding are possible, and that experimentation and innovation have an important role to play in bringing about alternative systems for discarding well, and continually adapting them where necessary.

1.4. Grassroots power

As should now be apparent, waste is a serious and ever-growing challenge, and existing strategies and frameworks for addressing it are falling short not just on a technical level, but also on a philosophical and political level. What's needed is a radical rethinking of the nature of the waste challenge and of the matter of waste itself, in order to develop interventions which will lead to more effective, socially just, and liberationist outcomes. This requires subverting the oppressive systems, ideologies, and normative assumptions which underpin the current paradigm of linear resource extraction, production, consumption and disposal. So, that means finding waste interventions which push against supremacist

systems including extractive racial capitalism, patriarchy, classism, casteism, ablism, ethno-nationalism, and heteronormativity. This might sound like an overly-ambitious and unrealistic project, given that the entities which hold conventional forms of power in this space – the governments, multinational corporations, and international trade bodies which oversee and influence the flow of material resources through the world – are unlikely to take up the project of emancipation from the very systems which generate their profits and confer their power. But these are not the only powerful entities that matter.

In this research, I look to the grassroots as a generative space for the development of systems of discarding well; systems which adopt an intersectional approach to waste, and which also reframe waste and discarding in bold and exciting ways. "Grassroots groups" is a broad category which can include voluntary associations, co-operatives, non-profit organisations, mutual aid groups, student societies, and more. As Skarp (2021) has argued, grassroots groups offer the greatest potential for establishing post-capitalist approaches to waste, given that they are relatively free from the profit-making imperatives which dictate the actions of businesses, and the pro-growth stances and the drive to gain and retain political power which influence the actions of governments. In addition, intersectionality theory has traditionally looked to the grassroots, rather than established institutions, as the main driver of societal change which serves the needs of the most marginalised (Mikulewicz et al. 2023). Scholarship in the field of grassroots innovations has increasingly demonstrated the important role the grassroots can play in transitions to more sustainable systems –from generating critical knowledge, to prefiguring alternatives to the status quo, to developing innovations which alter mainstream resource regimes to various degrees (e.g. Seyfang and Smith 2007, Seyfang 2009, Gupta et al. 2003, Smith et al. 2017). Furthermore, by taking grassroots innovations seriously as a force for change in ongoing shifts to more sustainable systems, this body of scholarship rejects dominant assumptions about the role of people and society in these transitions. People are not just passive recipients of change, or barriers to change due to their (often racialised, gendered, or classed) ignorance and self-interest. People are already organising and innovating alternative ways of using and living with resources, which are more sustainable and socially just than dominant unsustainable practices, and also more radical than the supposed solutions developed by mainstream actors.

Given my interest in intersectional responses to the waste crisis, which also challenge misguided and unhelpful understandings of what waste is, grassroots innovations were an obvious place to start in this research project. This is not to say that grassroots innovations are inherently sustainable, intersectional, or radical in their understanding of waste and systems of discarding. Indeed, they often reproduce the

same problematic or oppressive power structures which underpin mainstream waste paradigms. However, I maintain – and my research demonstrates – that grassroots actors are approaching waste in exciting and surprising ways, and that grassroots groups may be uniquely well positioned to offer intersectional and disruptive, if imperfect, approaches to discarding well.

Grassroots waste innovations (hereafter referred to as GWIs) almost exclusively target post-consumption household waste. As already discussed, this is only a small share of total global waste arisings, and it is important to keep this in mind when considering the role of GWIs in relation to the magnitude of the waste challenge. Being over-zealous about the potential for GWIs to overturn the multidimensional waste crisis risks falling into the trap of obfuscating corporate and governmental responsibility. Nevertheless, GWIs which make changes at the community level have political significance which can reverberate across scales, thanks to their ability to build solidarity and coalitions, generate political awareness and nurture societal agency, and prefigure different and more freeing ways of living and being in the world which challenge the supremacy of dominant systems. More research is needed to better understand the role of the grassroots in developing innovative and intersectional approaches to waste and discarding well. My thesis aims to address this research gap.

1.5. Research aims, questions, and thesis outline

Having outlined the core starting points of this thesis, and where the gaps and shortcomings lie in existing approaches to tackling waste, I can now introduce the central research aim of this thesis.

Research aim: To identify intersectional, transformative, and grassroots led waste strategies which give rise to new systems for discarding well, and to investigate how grassroots innovations develop these strategies, and/or struggle to do so.

My approach is novel and important, at this critical time for responding to the multiple interlocking crises of waste. To the best of my knowledge, this thesis is the first attempt to explicitly combine intersectionality theory and discard studies in identifying and analysing potential interventions into the waste crisis. Both fields can offer valuable alternative perspectives on the contemporary waste challenge and responses to it, addressing the shortcomings of existing mainstream waste strategies. The thesis is therefore highly relevant and timely. In addition, the thesis contributes and adds new insights to the field of grassroots innovations, explicitly demonstrating, for the first time, the potential they hold

for responding to the urgent sustainability challenge of waste in an intersectional way. Finally, my use of intersectionality theory takes this theoretical tradition in a new direction. Along with other scholars who are beginning to apply intersectional approaches to critical sustainability transitions and climate justice issues (e.g. Sharma et al. 2023, Amorin-Maia et al. 2022, Malin and Ryder 2018), I hope to have made a modest contribution to the continual evolution of intersectionality as a "travelling theory" (Lutz 2014) which can offer vital perspectives on a broad range of pressing societal issues in the 2020s and beyond.

The thesis is organized around the following research questions:

> *RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?*
>
> *RQ2: What does intersectional organising look like in grassroots waste innovations?*
>
> *RQ3: How do intersectional grassroots waste innovations help shape new systems for discarding well?*

To address these questions, I have used multiple qualitative methods: an interview-based mapping study, and two ethnographic case studies utilising a range of methods and research approaches. I will now outline how the rest of this thesis will proceed.

In Chapter 2, I provide a literature review which demonstrates the full the rationale for this thesis. I situate my work in relation to mainstream strategies for dealing with the waste crisis, focusing on circular economy, recycling, and behaviour change, and argue that these strategies are not only failing to deliver a reduction in waste and its related harms, but are also perpetuating many of the same injustices which underpin the waste crisis to begin with. I discuss some alternative approaches, specifically degrowth and strong sustainable consumption, which are more promising for environmental and social justice, but nonetheless still have blind spots in relation to multiple intersecting justice issues. I then give an overview of the literature on grassroots innovations, and the ambivalence in the literature over questions of intersectional social justice, pointing to the need for further research in this area. Next, I introduce intersectionality theory and some of the key debates within this body of scholarship, before outlining how it can be beneficial for a critical examination of the waste crisis. Having argued for the need for intersectional approaches to waste, I then turn my attention to discard studies as an emerging field which puts questions of power at the heart of studies of waste and discarding, as well as inciting deeper examination of the materiality and scales of waste. I conclude the chapter by outlining

my conceptual framework, which draws on core sensibilities in both intersectionality theory and discard studies, which I synthesise for the first time.

In Chapter 3, I discuss the methodology and methods of this thesis, describing my efforts towards undertaking intersectional, activist research. I provide an overview of my own positionality, and the political desires which shape this research. I then detail my research methods, covering the mapping study and the case studies. I outline my approach to qualitative interviewing, the selection of my case studies (and a brief introduction and comparison of the organisational elements of each one), and the multiple methods used in my ethnographic fieldwork, including interviews, media analysis, observant participation, volunteering, and action research. I then discuss the process of data analysis, before concluding with a discussion of ethical considerations and how these were incorporated into the research process.

Chapter 4 is the first of my empirical chapters. It addresses Research Question 1 (see above), and presents the findings of the interview-based mapping study through which I aimed to establish an overview of grassroots waste innovations in the UK, and the extent to which they are engaged with intersectionality. I begin with an overview of the characteristics of GWIs in the UK, including their position in relation to the conventional Waste Hierarchy or adapted Zero Waste Hierarchy, as well as the main waste streams they work with. I then provide an overview of how GWIs are viewed by the people involved, and by other relevant actors in the formal waste management regime, before discussing three key ways that intersectional approaches appear in GWIs. I conclude the chapter with a discussion of some key barriers for intersectional organising.

Chapter 5 builds on Chapter 4 and the need I identified for in-depth case study research to explore the intricacies of what intersectional organising looks like on the ground. Chapter 5 addresses Research Question 2. I discuss two comparative case studies, both of which show evidence of intersectional approaches to waste, but in different ways and working within markedly different contexts. I begin with a more extensive introduction to the two cases: Govanhill Baths Community Trust in Glasgow, and Bloody Good Period at the University of East Anglia in Norwich. I then compare how each case uses intersectional framings, project design, and coalition building processes in their engagement with waste-related challenges (or the difficulties they face in doing so). This chapter highlights the diverse ways that intersectionality can show up in GWIs in the UK, and the importance of locally situated context.

Having established that intersectional GWIs do indeed exist, and having presented and analysed some of the diverse ways that this can look, Chapter 6 turns to the third and final research question of this thesis, and explores how intersectional GWIs can help to develop new systems for discarding well. I identify the most significant ways that the case studies go about this, focusing on transformative ways of living with and through waste, and how they confront and subvert dominant systems of classification and removal. I then discuss issues of incompleteness and incommensurability in the case studies, as neither case offers a utopian and universalist "solution" to all challenges related to waste, or all social injustices. Rather than expecting them to do so, I argue that these issues of incompleteness and incommensurability reveal important insights about the complex dynamics of both intersectionality and disruptive new systems for discarding well, and opportunities for further organising and innovation.

Chapter 7 provides a conclusion to this thesis. I summarise the research findings, and outline the empirical and theoretical contributions I have made to the challenge of exploring intersectional and transformative approaches to waste. Finally, I discuss the implications of the research and outline a future research agenda.

Chapter 2: Towards an intersectional framework for discarding well

This chapter outlines the rationale for this thesis, situating my research in relation to existing scholarly approaches to waste and the literature on intersectionality. First, Section 2.1. provides an overview of mainstream approaches to waste favoured in national and global policy efforts, and explains why these approaches are falling short on both environmental and social justice grounds. Next, Section 2.2. introduces alternative, non-capitalist approaches which are gaining in popularity, and explores the ambiguities and gaps in these undoubtedly more promising ideas. In Section 2.3., I turn my attention to the extensive literature on grassroots innovations for sustainability, giving an overview of the central themes which have emerged in this body of work to date, and the need for more research to clarify the positioning of GIs in relation to multiple social justice concerns in Global North contexts such as the UK. Then, in Section 2.4., I introduce intersectionality as a theory for exploring how multiple systems of power and oppression overlap in specific contexts, and I discuss the possibilities and tensions for applying theoretical insights from intersectionality to contemporary sustainability debates. I then introduce the emerging field of discard studies in Section 2.5; an area of scholarship which is already subverting traditional philosophical and instrumentalist perspectives on waste, to address waste as inseparable from systems of power. Finally, in Section 2.6., I highlight the areas of synthesis between intersectionality and discard studies, and make a case for combining these insights. I then present four central themes which form a novel conceptual framework for transformative studies of waste: (1) a multidimensional analysis of harm, (2) a multidimensional approach to resistance, (3) A focus on the importance of good relations, and (4) challenging essentialism. I conclude the chapter by introducing my research questions and laying the groundwork for the chapters to come.

2.1. Mainstream approaches to tackling waste: why aren't they working?

To explain the rationale for why we need transformative new paradigms for tackling waste, it is first necessary to address the current approaches dominating the conversation. These mainstream approaches, which are put forward by national governments, international policy bodies, and global

sustainable development agendas, can be grouped into: (1) economic growth-aligned circular economy and recycling, and (2) consumer behaviour change. I will now examine each of these in depth, and provide arguments for why they are failing to deliver tangible reductions in waste and its associated environmental impacts. Then, I will outline how these mainstream approaches are also perpetuating multifaceted social injustices, and are reinscribing systems of oppression based on gender, race, class, colonialism and coloniality. My intention in this section of the chapter is to make the case for why alternative approaches are needed, which not only address the many environmental failings of mainstream waste reduction strategies, but also, address the need for social justice across multiple axes of oppression.

2.1.1. Circular economy, recycling, and the false promise of green growth

Mainstream approaches to reducing waste have long sought to reconcile the need to tackle the undeniable crisis of excessive and increasingly complex wastes with the desire to maintain and increase economic growth. These twin priorities are predicated on the idea that economic growth can be made green, or "decoupled" from negative environmental impacts including greenhouse gas emissions, natural resource depletion, and biodiversity loss (Hickel and Kallis 2020, European Commission 2020). Empirical evidence shows that decoupling is not happening at anywhere close to the rate it would need to, to meet global climate commitments and avoid catastrophic climate and ecological breakdown (Vogel and Hickel 2023). Yet, despite a lack of evidence that genuinely "green" growth is possible (Parrique et al. 2019), it has become the guiding principle in international sustainable development agendas, including those of the UN Environment Programme, the OCED, and the World Bank (Hickel and Kallis 2020).

Commitment to the false promise of green growth can be seen in the waste policies, agreements, and recommendations of national governments, international governance bodies like the EU, corporations and business consortia, and NGOs (Hobson 2021, Hobson and Lynch 2016). Rather than scaling back overall production and consumption, mainstream approaches to waste focus on maximising the economic value that can be extracted from resources before they are disposed of, through keeping resources circulating in the marketplace for as long as possible via changes in product design, remanufacturing, repair, recycling, and recovery of residual materials prior to resource disposal (Hobson and Lynch 2016). These ideas are frequently referred to as the "circular economy" (CE) (Ellen MacArthur Foundation 2024).

CE has gained ground in recent years, with flagship policies such as the EU's Action Plan for the Circular Economy (European Commission 2020), and the establishment of the Ellen MacArthur Foundation in 2010, which advocates for the adoption of CE businesses models and policies and produces research to facilitate this (Stahel 2016, Ellen MacArthur Foundation 2024). The CE mantra of reducing waste by maximizing the economic value of resources is seen as a "win-win" opportunity to help the environment while boosting economic growth, by creating new markets for repaired and remanufactured goods and recycled materials (Hobson 2021). In a geopolitical context, the EU also frames this strategy as central to maintaining international market competitiveness at a time of accelerating depletion of natural resources, the concentration of raw materials outside of regional markets, and fluctuating prices of materials (Hobson and Lynch 2016: 17, European Commission 2020).

Circular Economy thinking is explicit in the current waste and resources strategy for England, *Our Waste, Our Resources* (UK Government 2018). The strategy, which is part of the 25-year Environment Plan, aims to "double resource productivity" by 2050, while also eliminating all kinds of "avoidable waste" by this date (UK Government 2018: 7). "Resource productivity" is defined in terms of the value added to GDP per tonne of resources used (17). Waste is considered "avoidable" when it could have been reused or recycled, or when a reusable item could have been used instead of the product which was wasted, or when it could have been composted or biodegraded in the open environment (17). Tellingly, the strategy for England does not consider whether the initial production and consumption of these discarded resources was "avoidable". Any consideration of lowering production and consumption would challenge the assumed necessity of economic growth and the win-win promise of the CE.

There is significant skepticism over whether the CE represents a genuine departure from existing paradigms of unsustainable resource use. Whilst CE may have the potential to provide a framework for deep systemic changes in production and consumption systems, critics argue that mainstream usages of CE simply repackage the growth-driven status quo, and compound the very issues the CE is claimed to solve by creating more product markets and a rebound effect which sees net consumption increase (Hobson 2021, Zink and Geyer 2017, Hobson and Lynch 2016). Furthermore, a lack of consistency over how the term is defined means it is often used to give a disruptive sheen to practices which, on closer examination, are fairly mundane and require little in the way of systemic change to production and consumption (Kirchherr et al. 2017). As Hobson (2016) argues, mainstream CE policies are formulated under a neoliberal environmental governance framework, giving rise to expanded downstream market activity (for example increased efforts by the private sector to collect and recycle waste electronics

under Extended Producer Responsibility legislation), but placing far less emphasis on more radical upstream interventions such as designing waste out of product design – even though the latter is in theory one of the most significant changes promised by the CE.

A central flaw in CE policy frameworks and business practices is the assumption that increases in secondary production, e.g. recycling and remanufacturing, displace primary production on a 1:1 basis, thereby reducing the environmental impacts associated with primary production (Zink and Geyer 2017). As MacBride (2019) argues, at an aggregate level, the rise in recycled feedstocks available on the market does not automatically result in preserving virgin resources, which are simply extracted for different product markets instead. The OECD's Global Materials Outlook to 2060 paints a sobering picture: recycling is projected to triple by 2060, but at the same time, primary materials extraction is projected to almost double by 2060, and materials use per capita is expected to grow by 44% (OECD 2019). Evidently, recycling will not be able to keep pace with primary materials extraction. A lack of coordinated data tracking for most material streams also makes it difficult to ascertain the extent to which increases in secondary production are impacting primary production, meaning that synergy between these areas cannot be assumed (MacBride 2019). Other factors which expose the fallacy of displaced primary production include the fact that recycled goods are not inherently substitutable for new goods, and decreasing oil prices incentivise continued use of virgin plastics over recycled plastics (Levidow and Raman 2019, Zink and Geyer 2017). The influx of recycled, remanufactured and second-hand goods onto the market also leads to greater consumer choice and a subsequent lowering of prices; resulting in a rebound effect in which overall consumption increases. Zink and Geyer (2017) dub this the "Circular Economy Rebound".

Recycling itself is also a problematic process. Recycling produces waste, consumes energy and virgin materials, and results in downgraded material quality (Levidow and Raman 2019: 118-119, Liboiron 2013). In addition, the recyclability of waste materials is compromised by the high prevalence of impurities. For example, plastic waste typically contains non-plastic components, non-target plastics mixed with the plastic type targeted by a recycling facility, and potentially toxic chemical impurities from dyes and pigments (Faraca et al. 2019). Recycling is also dependent on volatile international markets. As Gregson and Crang (2019) outline, China was previously the global centre for the recycling of low-quality waste, mostly imported from the Global North, until the Chinese government banned most imports of foreign waste in 2018 in an effort to upgrade and modernise Chinese secondary production. This sent shockwaves around the world, and exposed the deep flaws in national recycling systems, particularly in

the UK, which was heavily dependent on exporting recyclable waste to China. The UK's recycling system, including the Material Reprocessing Facilities (MRFs) used to segregate recyclate before it reenters the market, was designed to maximise the *quantity* of exportable material produced, over the quality of the material (ibid). Gregson and Forman (2021) summarise: "England's resource recovery infrastructure was designed and built to generate high volumes of low grade material that were only suited to the export markets of the time" (221). China's ban on accepting low-quality waste for recycling has led to a crisis for domestic waste management, with private sector waste management partners demanding contract renegotiation and greater risk-sharing with Local Authorities, who may be unable to afford this after years of austerity (Gregson and Crang 2019). As the UK case illustrates, recycling is very far from being a straightforward solution to waste, and an over-reliance on recycling for sustainably managing every-growing quantities of waste as production and consumption accelerate comes with significant risks and drawbacks.

Despite these glaring flaws in CE and recycling as strategies for waste reduction, they remain highly attractive under the growth-driven global economic consensus. For example, a recent study by Diana et al. (2022) reviewed the sustainability commitments of 973 large corporations involved in the manufacture or distribution of plastics, and found that while the majority had made voluntary commitments to reducing plastic pollution, their commitments focused on increasing recycling rather than reducing virgin plastics. The dominance of recycling in corporate and governmental waste reduction strategies entrenches the production of disposable goods, by allowing manufacturers and distributers to present disposable goods as sustainable if they can (in theory) be recycled – irrespective of whether adequate recycling infrastructure actually exists in most locations where the goods end up (ibid). Indeed, the outsized influence which multinational corporations including Coca-Cola (the biggest producer of plastic waste) have on national and global waste policy agendas – pushing for the focus to remain on recycling and other downstream interventions – is a serious cause for concern (Vandenberg 2024). Fossil fuel and chemical companies also strategically use recycling to deflect attention from their production of plastic feedstocks. For example, Dow and Exxon invest in campaigns promoting recycling, while supporting the exponential growth of the plastics economy in Africa as a "Plan B" for oil and gas (Akuoko et al. 2023: 11, Tabuchi et al. 2020). All of this deflects attention from the role of production and industrial processes in generating pollution and waste, and obscures the need for regulation and legislative change to scale back extraction of virgin materials and primary production (Villarubia-Gómez et al. 2022, Liboiron 2013).

In summary, mainstream policy and business frameworks for reducing waste while boosting economic growth, which rely on increased resource circularity and recycling, are not keeping pace with the rate of primary resource extraction. It is unlikely that they will be able to do so any time soon, given current projections for global material use. Hobson (2021) therefore argues that the circular economy in its dominant interpretations represents an archetypical problem with green-growth agendas:

> That is, attempts to deploy systems, fundamentally built for extraction and accumulation, to address the very problems they have caused, will always – at an aggregate level, despite some localised wins – fail to create genuine and transformative sustainability: a pattern that CE interventions are not only maintaining but also perpetually accelerating (166-167).

There is thus a pressing need for new paradigms for tackling waste, which diverge from the mainstream focus on continual economic growth, and which offer more genuine and systemic solutions than increasing recycling rates and other forms of secondary production.

2.1.2. The limitations of consumer behaviour change

The mainstream preference for recycling and circular economy business models as the primary routes to reducing waste also places considerable emphasis on changing consumer behaviours. Consumers must opt in to purchasing remanufactured goods, utilizing repair and lending services, and increasing their household recycling rates in order to realise the mainstream vision of a green-growth-aligned circular economy (Hobson 2021). Mainstream ideas about consumer behaviour change draw on Rational Actor Theory, which posits that individuals will respond rationally to the information available to them to make informed purchasing and lifestyle decisions which lead to optimal outcomes for the individual, the environment, and society (Middlemiss 2018: 62-75). Rational Actor Theory can be seen at work in the current waste and resources strategy for England, which outlines a range of interventions targeted at the consumer with the aim of incentivising them to "do the right thing" by making different purchasing decisions (UK Government, 2018: 52). Examples include increasing the plastic carrier bag tax, providing clearer information about the sustainability of products through new product labelling schemes, and having a greater range of quality-assured second-hand products to choose from (52 – 57).

There are several problems with the foregrounding of consumer behaviour change in strategies to reduce waste and tackle the severe environmental and social crises caused by unsustainable resource use. Firstly, as outlined in Section 2.1.1., even when consumers do buy in to recycling and resource

34

circularity, market rebound effects and the continual drive for economic growth mean that this is wholly insufficient to displace the primary production of resources.

Secondly, in positioning people as passive consumers, whose only role in the transition to a circular economy is to respond to market and policy signals by buying the correct products and segregating their waste, mainstream CE and waste reduction agendas downplay the complexity of human relationships with materials and material cultures (Hobson 2020, 2021). As proponents of social practice theory have argued, there are many factors which shape everyday human practices aside from purely rational decision-making and people's attitudes towards environmental sustainability (Shove 2010). These include the images and meanings evoked through certain practices, the skills people possess, the materials and infrastructures available to them, and the repetition of practices over time, which reinforces the links between these elements (Shove et al. 2012, Hargreaves et al. 2013). And as Seyfang (2009: 2-26) explains, the ability of individuals to make more sustainable consumption choices is constrained by the systems of provision which dominate our daily lives. These systems of provision are comprised of co-dependent relationships between consumers and suppliers, as well as existing chains of production, marketing, distribution, and retail, and the social and cultural context of consumption, which lock consumers in to certain consumption patterns (ibid., Seyfang and Smith 2007). Furthermore, by limiting people's role in the CE to that of consumers, mainstream waste reduction strategies overlook the agency and innovative potential of citizens and society, as well as the creative and disruptive potential of engaging in circular economy practices at the grassroots level (Spekknik et al. 2022, Hobson 2021) – a point I shall return to in Section 2.3 of this chapter.

Thirdly, the emphasis on consumer behaviour change as a vehicle for sustainability has long been criticised as "consumer scapegoatism" (Akenji 2014), which deflects attention from the responsibility borne by producers, legislators, and other institutional actors (Maniates 2001). Indeed, the policy framing of waste as a post-consumption issue fundamentally misrepresents the modern waste challenge (Villarubia-Gómez et al. 2022). The majority of solid waste produced in society does not arise from households, but from industrial processes (Liboiron and Lepawsky 2022: 36-37). This becomes clear when viewing the statistics on total waste arisings in the UK. At the time of writing, the most up-to-date statistics available from the UK Department for Environment, Farming, and Rural Affairs (Defra) show that households accounted for just 12% of total annual waste arisings. The largest category of waste arisings by far was construction, demolition and excavation (C, D&E), which accounted for 62% of

arisings, followed by commercial and industrial waste (C&I) at 19% (Defra 2023). These statistics are shown in Figure 2.1.
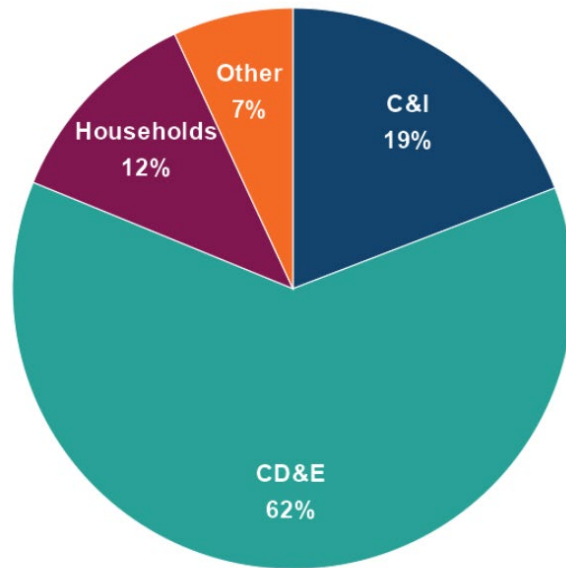
Figure 2.1. Waste generation split by source in the UK, 2018.

Source: Defra Statistics (Defra 2023).

Key: C D & E = construction, demolition, and excavation. C & I = commercial and industrial activities. "Other" = waste from mining, agriculture, forestry, and fishing.

The split of waste generation by source shown in Figure 2.1 puts household waste into perspective. Evidently, it pales in comparison compared to industrial processes like construction. This shows the significant limitations of waste prevention strategies based on consumer behaviour change alone.

More to the point, a narrow focus on consumer behaviour change overlooks how post-consumption waste generation is itself closely intertwined with industrial production systems. Liboiron (2013) argues that post-consumption / household waste should be considered an *extension* of industrial solid waste, because it is fundamentally driven not by bad consumer choices, but by intentional industrial strategies to increase profits. The rise of consumerism in the mid-twentieth century saw manufacturers replacing durable goods with disposable ones, and introducing planned obsolescence, in a deliberate effort to grow profits by increasing material throughput (ibid., Kuppelweiser et al. 2019). The market logic which forms the backdrop to our daily lives is that the more consumers throw away, the more new products can be manufactured and sold (Liboiron 2013). Consumer markets have been deliberately flooded with

single-use and difficult-to-repair goods, and powerful social norms and cultural meanings have emerged in relation to the throwaway economy (Braun and Traore 2015). This puts considerable constraints on individuals' ability to opt out of wasteful ways of living.

The assumption that consumers "make" waste is also problematised by Gille (2010, 2013), who developed the concept of "waste regimes" to explore how economic, social, political and cultural forces interact to determine how waste is generated, distributed, and processed – charting, for example, the marketisation of waste management and the growth of the private waste sector as key factors in shifting waste policy focus onto supporting "end-of-pipe technologies" for which waste is a profitable feedstock (Gille 2010: 1058). Gregson and Forman (2021) provide a detailed account of the existing waste regime in England. Following policy directives to phase out the landfilling of waste in the 1990s, municipal solid waste has been financialised: managed by contracts between Local Authorities (LAs) and private sector firms operating for a profit.[7] The authors describe how the public-private partnership-based waste regime in England locks in certain patterns of waste generation:

> Long duration contracts (25-30 years) are the norm [...] LA's modelling projections of household discard as a function of population and household growth, alongside material characteristics of that discard, informed their procurement of residual waste management facilities, specifically the size, scope, and technical specifications of plant agreed with their preferred bidder. The residual waste contracts signed by LAs and their preferred bidder formalised the delivery by LAs, over multiple decades, of *guaranteed tonnages of discard, to satisfy particular material characterisation thresholds.* In turn, those contracts are underpinned by a financial payment made by LAs to their supplier/s for the services delivered (the annual charge). *These guaranteed payments, spread across decades, and the guaranteed flows of discard on which they depend, have allowed for England's residual waste to be turned into a financial asset* (217, my emphasis).

The locking-in of guaranteed quantities of waste as an asset for private sector companies reveals the limitations of strategies to reduce waste by focusing only on how consumers use their bins. A salient example of this can be seen in the controversy around energy from waste incineration (EfW), a carbon-intensive form of energy generation which is favoured in current UK waste policy as a means of reducing waste sent to landfill (UK Government 2018: 76-79), and which is the current destination of 43% of England's waste (Gregson and Forman 2021: 217). In 2021, a Channel 4 investigation revealed that 11%

---

[7] According to Gregson and Forman's research, as of 2018 the UK waste management market was dominated by five firms: Veolia, Suez, Viridor, Biffa, and FCC. The largest market share is held by French-owned transnational firms Veolia and Suez (Gregson and Forman 2021).

of household waste collected for recycling was being diverted to incineration (Siegle 2021). The findings of the investigation speak to criticisms that contracts between Local Authorities and waste management companies have locked in demand for waste as a feedstock for EfW, thus entrenching this highly polluting technology and undermining efforts to improve recycling, remanufacturing, repair, and to reduce material throughput (WWF and Eunomia 2018: 4, UKWIN 2024). This is particularly relevant in the case of plastic waste, which was enshrined early on in the formation of the current English waste regime as a feedstock for EfW, due to the technical challenges and higher costs of processing it for recycling in MRFs (Gregson and Forman 2021: 223). What this example shows is that without significant changes to institutional arrangements at the regime level, attempts by consumers to change their waste habits – for example by segregating their waste and putting it in the correct recycling bin – will have little effect on local and global waste-related harms (Lepawsky 2023, Gregson 2023).

2.1.3. The social injustices of mainstream waste approaches

In addition to the clear practical failings of mainstream waste reduction strategies outlined above, mainstream visions of growth-oriented waste reduction also reproduce multiple social injustices. A central issue with mainstream waste reduction agendas is the question of whose perspectives are prioritised, whose are marginalised, and the impact this marginalization has in terms of reinscribing injustices along the lines of class, race, gender, citizenship, coloniality, and ability.

The concept of sustainable consumption, including low waste or "zero waste" living, has gained ground in affluent population centres globally (Anantharaman 2022, Müller and Schönbauer 2020). The performance of individual sustainable consumption is often contingent on social privilege and private ownership of resources. Financial affluence, housing security, free time, being able-bodied, and having access to private transport allow people to engage in green behaviours such as buying more expensive sustainable products and accessing recycling centres (Pynk Spots 2021, Bell 2020, Middlemiss 2018). Materially disenfranchised or socially marginalised groups are prevented from participating in mainstream expressions of sustainable consumption. For example, "zero waste" shops tend to be dominated by white middle-class consumers, which can create an uncomfortable or even unsafe environment for people of colour (Müller and Schönbauer 2020). This, combined with a lack of joined up thinking from mainstream environmental movements to connect sustainability with other pressing issues like poverty and housing insecurity, makes sustainable consumption daunting to engage with for those who do not fit the dominant image of a sustainable consumer (Bell 2020).

The exclusion of minoritised groups from mainstream sustainable consumption speaks to Pulido's concept of "ecological legitimacy" (Pulido 1996, cited in Anantharaman 2022). Wealthy, formally educated, white, or higher caste social groups are assumed to be valid environmental actors with the moral authority to determine what constitutes the environmental good (Anantharaman 2022: 122). Ecological legitimacy is denied to working class, racialised, and otherwise disenfranchised communities, who are often blamed for ecological problems like pollution and poor waste management (Pulido 1996, Baviskar 2011). This is despite the fact that working class and racialised minority communities have been at the forefront of environmental justice movements to resist the harms of industrial pollution and toxic waste dumping (e.g. Pellow 2004, Bullard 2000, Krauss 1993). In addition, low-income communities and communities living on the fringes of formal infrastructures of provision often practice what Anantharaman (2018: 2) terms "quotidian sustainable consumption". Refugees, Indigenous peoples, and low-income communities of colour use innovative practices to prevent waste and practice resource circularity in everyday life (Salemdeeb 2019), but these practices are overlooked or appropriated in mainstream discourses on circular economy and sustainable consumption, which are dominated by wealthy and / or white consumers in urban centres (Hernandez 2021, Siragusa and Arzyutov 2020). Not only are marginalised groups denied ecological legitimacy: affluent consumers use the performance of sustainable consumption practices, including waste segregation and recycling, to gain social status (Furniss 2017: 305), and reinforce their social distinction from less privileged segments of society whose practices of quotidian sustainable consumption are associated with the stigma attached to being poor (Anantharaman 2022, 2016, Middlemiss 2018: 50-51). The "performative environmentalism" (Anantharaman 2022) of the wealthy therefore reinforces oppressive social hierarchies in a racial capitalist society.

The invisible labour involved in mainstream waste reduction strategies also raises significant issues around social equity and justice. This is true at both the micro and macro scales of sustainable consumption and the circular economy. In domestic settings, waste reduction and CE practices – from repairing broken items, to washing and reusing containers, to segregating waste and bringing it to recycling collection points, to organising and planning in order to participate in sharing models – require additional physical and mental labour as well as time (Hobson et al. 2021). Assumptions that consumer engagement with CE practices will lead to greater convenience are often made in official CE discourses, but these are not backed up by empirical evidence (ibid.). Studies on sustainable consumption, low-waste living, and gender show that the additional labour typically falls on women, who are positioned as responsible for social and environmental care under patriarchal ideology (de Wilde and Parry 2022,

Lorek et al. 2023). The gendering of sustainable consumption work intersects with class, race, caste, and coloniality in cases where care work is outsourced to low paid domestic workers, who are typically working class, often migrant, women of colour (Lorek et al. 2023, Dengler and Seebacher 2019). Anantharaman (2014) illustrates this with the case of middle-class neighbourhoods in Bangalore, where recycling processes depend on the under-acknowledged labour of domestic workers and low-income waste pickers. This expression of sustainable consumption therefore reproduces a "culture of servitude" (ibid: 182), tying the well-intentioned recycling efforts of middle-class consumers to structures of classist, sexist, and neo-colonial dominance.

At a macro scale, the global shift towards a circular economy has also led to concerns that unequal global power relations will be reinforced by this transition. Developing and less wealthy nations are at a competitive disadvantage in the CE transition due to having less widespread access to digital technologies and skills, lower capacity for industrial innovation, lower bargaining power when it comes to accessing critical raw and secondary materials, and unequal access to supportive finance and investment (Barrie et al. 2022, Schröder and Raes 2021). Furthermore, the shift towards more formalised circular models for the collection, resale, remanufacture, and recycling of materials raises significant questions of justice and integration for the millions of people whose livelihoods are currently based on informal waste work, predominantly in the Global South (Velis 2017). Informal waste workers, who perform roles such as scavenging, scrap dealing, and recycling, are already central to burgeoning circular economy efforts in national and international resource economies, and yet their labour is seldom acknowledged or integrated into formal CE policymaking (Cataldo et al. 2024). Informal waste work is stigmatized and beset with environmental hazards and exploitative labour relations, and is highly susceptible to market volatility, but at the same time, it is a bedrock of economic independence for many who participate in it (ibid., Zapata-Campos et al. 2022). For women, and especially women who are multiply marginalised (e.g. widows, young unmarried women, and those experiencing domestic violence), it is also a source of community cohesion and social support (Wittmer 2021).

The challenges facing informal waste workers in the transition to a circular economy are summarized by Theresa Bul, a representative from the Association of Waste Pickers of Lagos, Nigeria. At the International Labour Conference in 2023, Bul explained:

> Despite our environmental contributions, our work is unprotected, hazardous, and we are excluded from formal labor markets. We don't have labor rights […] Most of us work as self-employed workers with meagre incomes, and are at the receiving end of the exploitative power relations in different value chains.

We cannot compete with the new enterprises entering the recycling industry, and Extended Producer

Responsibility (EPR) policies and other circular economy investments are privatising the sector and

diverting materials away from us […] These injustices persist because we are not adequately accounted

for in national policies, nor international agreements. Also investments designed by the governments with

the complicity of multinational corporations to address environmental issues, keep excluding us. (Bul

2023: 1-2).

The failure of international CE policy mechanisms and business models to account for the contributions and needs of informal waste workers is a major injustice at the heart of mainstream waste reduction strategies. As Wittmer (2021) argues, the exclusion of informal waste workers must be understood in the context of ongoing patriarchal, capitalist, and colonial power relations, under which the lives and perspectives of the most marginalised are consistently devalued.

Clearly, without due consideration of how mainstream waste reduction strategies are tied to systems of injustice at micro and macro scales, these strategies will only end up reinscribing oppressive power relations on the basis of gender, class, race, caste, coloniality, ability, and so on. Yet, as global policy and business efforts to adopt more circular resource practices accelerate under the guise of sustainable development and green growth, there is an alarming lack of evidence that social justice and equity are being prioritised in any meaningful way. Indeed, given that the mainstream transition towards a circular economy is primarily motivated by an ideological drive to maintain economic growth and international competitiveness in an era of rapid natural resource depletion and environmental deterioration, it is unsurprising that considerations of social justice and the abolition of oppressive power relations are being left out of the picture. This points to an urgent need for alternative conceptualisations of the contemporary waste challenge, and alternative strategies for addressing it, which put social justice and genuine preservation of ecosystems first.

2.2. Reducing waste through degrowth and strong sustainable consumption

In recognition of the myriad failings of mainstream approaches to waste reduction outlined in Section 2.1. of this chapter, alternative agendas for genuinely sustainable production and consumption are

emerging. The most notable of these are degrowth and strong sustainable consumption (SSC). Both of these fields maintain that economic growth must be decentred as the primary goal of economic and environmental policy in order for true sustainability to be achieved, and that there must be a net reduction in global material throughput in order for environmental harms, such as excessive and toxic wastes, to be reduced (Fuchs and Lorek 2013, Spangenberg 2014). Unlike mainstream sustainable consumption agendas, which take a blanket approach to blaming consumers for unsustainable behaviour, degrowth and SSC challenge the substantial inequities at the heart of unsustainable resource use. These fields argue that there must be a significant reduction in consumption among high income countries and the wealthiest populations, allowing for an increase in consumption among the poorest groups, to bring humanity into what Akenji et al. (2021) call a "fair consumption space". Conceptualised spatially in this way, a fair consumption space has a maximum consumption "ceiling" determined by planetary boundaries, and a minimum consumption "floor" determined by the basic conditions needed to live a dignified and satisfying life (Spangenberg 2014). All material needs and personal and community wellbeing should be met within the parameters of the fair consumption space (Lorek and Fuchs 2019, DiGiulio and Fuchs 2014).

A range of radical policy approaches are advocated in the degrowth and SSC literatures to bring society into a fair consumption space and counter the ecologically destructive trajectory of the current growth-oriented economy. These include scaling down the most harmful and least necessary industries, reducing working hours in the formal economy, instituting a universal basic income and universal public services, limiting the ability of individuals to hoard private wealth, and actively involving civil society coalitions in sustainable consumption governance (Hickel et al. 2022, Fuchs and Lorek 2013, Lorek and Fuchs 2019, Kallis et al. 2020). In addition, corporate power must be challenged through coalition-building and capacity-building in civil society, to unseat corporate control over jobs, technologies, and cultural production (Fuchs et al. 2018, Fuchs et al. 2016). A critical aim within both degrowth and SSC agendas is to shift ideological perceptions of what constitutes prosperity and "the good life". Currently, in capitalist societies where corporations have a high degree of ideational power (Fuchs et al. 2016), personal and societal prosperity are associated with high-consumption lifestyles. Workers are compensated for their labour not with more leisure time and opportunities to cultivate community and family relations, but with the ability to participate in increasingly unsustainable acts of consumption (Seyfang 2009: 17-20). Therefore, significant structural and cultural changes are needed to displace individual consumption as the core indicator of wellbeing.

The visions put forward by degrowth and SSC scholarship are compelling from the perspective of tackling the crises of waste. It is clear that current volumes of waste cannot be reduced, and nor can waste-related harms be mitigated, while the economy continues to grow, wealth gaps continue to widen, and the consumption levels of the most affluent continue to increase. However, as Vico, Demaria, and D'Alisa (2023) recently pointed out, degrowth scholarship has tended to focus on production, and has neglected to address questions of how to approach the substantial challenge of already-existing waste, not to mention the waste which will continue to be generated even in a degrowing economy. A similar observation can be made in relation to the SSC literature, which focuses on changing the structures, cultures, and power relations of consumption, but has not addressed *the material matter of waste*.

One of the first attempts to bridge this research gap has been made by Skarp (2021), who explores commoning as a post-capitalist waste management strategy. Another notable study which brings together degrowth and critical perspectives on waste is by Savini (2023), who argues for new models of "degrowth circularity". Both Skarp and Savini view community groups and collectives as critical agents in prefiguring non-capitalist waste futures, because they can prioritise social and environmental wellbeing over generating monetary returns from waste. Furthermore, grassroots actors can consider the social and ecological value of waste, instead of viewing it merely as a commodity or a hazard (Skarp 2021, Savini 2023). Their arguments add to those of Morrow and Davies (2021) and Hobson (2020), who argue that valuable processes of care and solidarity are enacted through waste prevention activities such as composting and repairing. These forms of non-material value are overlooked by mainstream conceptions of the CE, but might gain more prominence in a degrowth economy (Savini 2023).

In addition to leaving questions regarding waste unaddressed, degrowth discourses have also garnered critique for taking a Western-centric, homogenising approach to development, in which calls to reduce the scale and scope of economic activity are stifling the plurality of perspectives and ways of organising social and economic life in Indigenous and anti-colonial cultures (Arora and Stirling 2021). Degrowth scholarship has been driven primarily by the Global North, leading to blind spots around transboundary global justice, decolonisation, gender justice, and the danger that neo-colonial and patriarchal continuities are reproduced (Dengler and Seebacher 2019). To counter these risks, advocates of decolonial and feminist perspectives on degrowth argue that degrowth should be resituated alongside

Global South and Indigenous movements, which emphasise a plurality of knowledges, and autonomy and sovereignty for peoples whose Lands are under threat from growth-driven industries (Nirmal and Rocheleau 2019). Continual reflexivity, and efforts to deconstruct the nature/culture, gender, and racial dichotomies behind extractive economic structures, are necessary for a decolonial, feminist approach to degrowth (Dengler and Seebacher 2019). Active solidarity and alliance-building with Global South environmental justice movements, and a centering of issues affecting Global Majority women in particular (such as the exploitation of Black and brown women's labour in care-work settings) are also advocated as important for a degrowth movement which foregrounds pluralistic, anti-colonial, feminist, and intergenerational global justice (ibid.).

In summary, it's evident that alternative strategies for dealing with waste are emerging, which have the potential to be both more effective at reducing the ecological harms of the linear economy, and to place a stronger emphasis on questions of social equity and justice than growth-driven conceptions of the circular economy. Degrowth and strong sustainable consumption are promising in this regard. However, significant gaps remain in the literature, regarding the specifics of what degrowth-aligned waste systems look like, and also, how these "radical" visions of alternative waste systems will account for a plurality of perspectives and the need for justice across multiple interconnected challenges including racial justice, anti-colonialism, and gender justice. Attention is called to grassroots and community level action in the literature, as a potentially promising pathway for post-growth, socially just, and care-centered models of resource circularity and transformative ways of dealing with waste (Savini 2023, Hobson 2020). However, there are few existing studies which have explored this area. My thesis seeks to address this gap. I will now turn my attention to grassroots innovations and community action on waste, and explore in more detail the possibilities they hold.

2.3. Grassroots innovations

As the limitations of mainstream sustainable development agendas become apparent, increasing attention has been given to innovations for sustainable resource use arising from the grassroots level. Grassroots innovations (GIs) are heterogeneous in their characteristics and aims (Hossain 2018), but they are generally defined as forms of innovation which emerge from civil society and provide small-scale, low-cost, and low-input solutions to local problems, to address material and social needs which are not being met by dominant institutions or market structures (Seyfang and Smith 2007). GIs take

diverse organisational forms, including co-operatives, voluntary associations, and community groups, characterized by varying degrees of informal and formal labour (Hargreaves et al. 2013). The communities involved in, and affected by, GIs retain control over the processes of innovation and the outcomes (Smith et al. 2017: 3).

GIs can be contrasted with mainstream understandings of innovation. Innovation is typically viewed as the preserve of formal scientific and technological institutions such as government agencies, universities, and corporate R&D labs. The prevailing assumption is that innovation is transmitted in a top-down fashion through market mechanisms with the goal of boosting economic growth and competitiveness (Smith et al. 2017: 4). In contrast, the literature on GIs emphasises community agency and the ability of grassroots groups and networks to adapt and innovate in challenging circumstances (Gupta et al. 2003). Social justice and the needs of the community, rather than the accumulation of profit, are the primary goals of grassroots innovation (Seyfang and Smith 2007). Social innovation occupies a central position within GIs, meaning that it is not only new technologies which are developed, but also new social relations, processes and ways of organising, and collective narratives (Smith and Seyfang 2013, Pel et al. 2020). GIs thus foreground social and cultural elements typically overlooked in top-down innovation agendas, such as questions of how people relate to the resources they use, how they share skills and knowledge, and how they view their relationships with each other and their role in society (Spekkink, Rödl and Charter 2022).

2.3.1. Background: grassroots innovations for sustainability

The literature on GIs challenges prevailing assumptions that transitions towards sustainable resource use in society will be driven by top-down technological innovation and policy change, with consumers taking a passive role as the recipients of these changes. While some scholars point out that GIs are not inherently aligned with sustainability or the preservation of resources and ecosystems (Smith 2017, Gupta et al. 2003), much of the literature on GIs begins from the premise that civil society networks and bottom-up innovation can play a significant role in the transition towards lower-carbon systems in the context of the climate and ecological emergency (e.g. Spekkink et al. 2022, Seyfang and Haxeltine 2012, Nikravech et al. 2020). GIs are thought to have the potential to play a catalytic role in sustainability transitions through the development of trans-local networks, building up a critical mass of civil society participants, and developing a political voice which can influence policy (Spekkink et al. 2022, Pel et al.

2019). At the same time, scholars of grassroots innovation argue that the value of GIs should not be assessed solely in terms of their quantitative impact on reducing ecological footprints in society. GIs also play a role in shaping critical debates about unsustainable mainstream resource regimes (Smith et al. 2016, Hargreaves et al. 2013), strengthening social relations and empowering communities (Pel at al. 2019, Fressolini et al. 2014), and facilitating new socio-material relations and meanings as people change the ways they live and conceptualise themselves through adopting new innovations at the community level (Smith and Seyfang 2013, Smith 2017). All of these contributions are considered important for the creation of a more sustainable and socially just society.

Examples of sectors where grassroots innovations have been explored include community energy (Kumar and Aiken 2020, Smith et al. 2016), community supported agriculture (Bloemenn et al. 2015), co-housing (Chatterton 2016a), community currencies (Seyfang and Longhurst 2016), Transition Towns (Seyfang and Haxeltine 2012), makerspaces and hackspaces (Schmid and Smith 2020, Smith 2017), and agriculture, sanitation and food production innovations appropriate to diverse local contexts (Smith et al. 2017: 56-79). GIs have also been explored at length in relation to community efforts to reduce waste and move towards a circular economy. Examples of grassroots waste innovations (GWIs) include forms of collaborative consumption facilitated through sharing, swapping, and lending initiatives (Zapata-Campos and Zapata 2017, Martin and Upman 2016), repair cafes (Schägg 2020, Spekkink et al. 2022), scrap collection, waste picking, and small-scale recycling (Zapata Campos et al. 2022, Zapata Campos et al. 2020, Gutberlet et al. 2017), food waste recovery and redistribution (Nikravech at al. 2020, Tartiu and Morone 2017) and litter picking groups (Skarp 2021). An extensive study by Skarp (2021) details the extent and variety of community-led innovations for reducing and sustainably managing waste in the UK, updating earlier studies of the Community Waste Movement which explored similar initiatives in the mid 2000s (Sharp and Luckin 2005, Luckin and Sharp 2006). Charity shops are also significant actors which reduce waste through the resale of unwanted goods (Skarp 2021). However, they arguably do not fit the definition of grassroots or community-led responses to waste, as they are usually part of large and highly formalised organisations, and are arguably part of the mainstream waste management regime (see Section 2.1.2) due to the significant quantities of municipal solid waste passed on from Local Authorities to charitable organisations. Chapter 4 of this thesis revisits the current field of GWIs in the UK and explores its scope in more depth, before presenting the findings of the first phase of the research undertaken for this thesis, which add significantly to existing knowledge in this area.

2.3.2. GIs, capitalism, and governance: contrasting perspectives

Within the diverse field of GI literature, there are diverging perspectives on the role of GIs in relation to existing capitalist resource regimes. Some studies of GIs, such as Gupta et al. (2003) and Hossain (2020) are explicitly concerned with how developers of GIs can see their innovations proliferate in society and achieve commercial success, with the original innovators retaining patent control over their designs and being fairly remunerated. Whilst this challenges the power of large corporations to appropriate grassroots innovation and dispossess local innovators, the underlying structures of capitalist markets are not questioned. Other perspective focus on the potential for GIs to bring about changes in existing resource regimes (e.g. energy, waste), without necessarily transforming the underlying structures or ideologies implicit in these regimes. This understanding of the role of GIs stems from the multilevel perspective in transitions management theory, in which GIs are seen as innovation "niches" where experimentation is nurtured with support from larger institutions, and then assisted to upscale and replicate, to the point where these innovations enter the mainstream and change resource management practices at an aggregate level (Smith and Raven 2012, Smith et al. 2016, Hargreaves et al. 2013).

The transitions management perspective on GIs highlights the need for change in dominant resource regimes, to transition towards more sustainable and low-carbon structures in which communities and citizens have more agency. Such visions of sustainability transitions are undoubtedly appealing. However, they usually stop short of presenting a fundamental challenge to existing capitalist markets and top-down governance structures, leading to critiques that issues of power and of who gets to do the "managing" of transitions management are overlooked (Shove and Walker 2007, Avelino 2017). And while theorists of transitions management argue that there are multiple pathways for innovation niches to impact upon prevailing regimes – including transformative and even revolutionary pathways (Geels 2011, Dahle 2007) – others have pointed out that when GIs interact with mainstream regimes through upscaling, replication, or commercialisation, this frequently results in a watering down of GIs' more radical and transformative elements, ultimately leading to their absorption into formal capitalist regimes (de Moor et al. 2021, Martin et al. 2015, Seyfang and Smith 2013).

 In contrast, some studies of GIs take an explicitly post-capitalist approach and investigate the potential of GIs beyond mainstream capitalist resource regimes. Numerous studies of GIs focus on their role in contexts where capitalist market-based systems of provision have broken down (or never served certain

communities), and grassroots groups develop innovative ways of meeting community needs in this vacuum, through non-capitalist processes of cooperation, mutual aid, and solidarity (Loukakis 2018, Apostolopoulou et al. 2022, Stephanides 2017). These studies are less interested in the extent to which GIs can enter or influence mainstream resource management regimes, and focus instead on the value of creativity and experimentation (Smith 2017), social processes such as placemaking, deep democracy, and reflexive learning (Chatterton 2016a, 2016b), and the importance of alternative economic spaces which prefigure radical alternatives to the capitalocentric mainstream (Skarp 2021, Smith 2020). In this regard, postcapitalist perspectives on GIs have less in common with the transitions management literature, and more in common with the fields of diverse economies and community economies. These branches of feminist economic geography decentre capitalism as a (presumed) totalising system, and emphasise the plurality of alternative, ethical, sustainable forms of economic organisation which exist alongside capitalism, such as cooperatives, commoning, and volunteering (Gibson-Graham et al. 2021, Gibson-Graham et al. 2016).

Postcapitalist perspectives on GIs have the advantage of showing that alternatives to exploitative and unsustainable capitalist systems are not only possible, but are already a dynamic and active field. This is a counterpoint to purely anti-capitalist perspectives, which focus heavily on the need to dismantle harmful systems without necessarily putting forward alternatives (Schmid and Smith 2021). In addition, postcapitalist perspectives help to circumvent narrow instrumentalist metrics for measuring the success of GIs, such as their ability to replicate, upscale, or mobilise large swathes of the population. Evidence of GIs achieving this – without being compromised to the point where they cease to offer a meaningful challenge to dominant resource regimes – is often lacking (e.g. Spekkink et al. 2022, Martin et al. 2015). As Chatterton (2016a) observes, postcapitalist GIs should be understood as engaged in processes of "bottom-out" rather than "bottom-up" transformation, which can inspire more instances of autonomous grassroots innovation unique to each local context. Therefore, they do not lend themselves well to being strategically managed by external institutions to help achieve top-down sustainability agendas.

This is not without its drawbacks. It is not always clear how singular examples of postcapitalist GIs relate to, or influence, wider trends towards more sustainable and just systems (Chatterton 2016a). In addition, an over-focus on micro-level experimentation as the locus of political action can detract from the need for contentious action against dominant systems (de Moor et al. 2021). Lastly, the fact of GIs

positioning themselves as postcapitalist and autonomous, and valuing processes such as deep democracy and consensus-based decision-making, does not erase the potential for exploitation to occur, and for broader societal structures of oppression to be reproduced in the internal dynamics of GIs. Indeed, studies which focus on the micro-dynamics of singular initiatives can neglect to consider how the initiatives are situated in relation to broader social contexts when it comes to issues of equality and social diversity (Franklin et al. 2011). The next section of this chapter will investigate the question of social justice in GIs in greater depth.

2.3.3. GIs and social justice: a mixed picture

Where do GIs sit in relation to questions of social justice and emancipation from the multivarious oppressive systems of the contemporary capitalist resource economy? The literature to date suggests that the answer is complex, and there is evidence both for and against GIs being routes to social justice in different contexts.

In Global South contexts, where colonialist legacies and ongoing economic disparities and social hierarchies constrain the capacity of low-income and marginalised communities to flourish, GIs have been presented as a force for political empowerment. In contexts of severe resource scarcity, where marginalised communities are highly underserved by state and market structures and are socially stigmatised due to their class, caste, gender, and/or minority ethnicity status, GIs provide a pathway to socioeconomic and political agency, as in the examples explored by Zapata-Campos et al. (2022) of the innovations of autonomous Waste Picker Organisations in Argentina, Brazil, Nicaragua, Tanzania, and Kenya. GIs emerging out of such precarious contexts have been explored as vectors for radically inclusive "democracy from below", and have been shown to make an important contribution to social movements for political change in the context of oppressive and/or ineffective governing regimes (Zapata-Campos et al. 2020, Smith et al. 2017).

In addition, GIs allow subaltern communities to subvert the elitism embedded in mainstream development and innovation institutions, which are typically led by the Global North or funded by Global North capital, require a high level of formal education, and attempt to impose innovation onto to communities in an undemocratic and paternalistic manner, with little regard for their situated knowledges, priorities, and socio-political contexts (Fressolini et al. 2014, Parthasarathy 2016, Gupta et

al. 2003). Some GIs have been shown to draw on Indigenous and generational knowledges which are sidelined by mainstream innovation and development agendas (Khalil et al. 2020, Smith et al. 2017). Gupta et al. (2003: 976) celebrate GIs as catalysts for decolonial futures, in which a plurality of local and Indigenous technologies, knowledges, and innovations displace the totalising and repressive framework of Western technocratic development – although others express frustration that the innovations of Indigenous communities are still threatened by Western absorption and erasure (Siragusa and Arzyutov 2020).

However, despite the clear potential of GIs to advance pluralistic, Indigenous-led, anti-colonial, anti-elitist and radically democratic forms of socio-economic organising, a sticking point for the field of grassroots innovation is the ongoing gendering of innovation as a male sphere. In their overview of the influential Honeybee Network, which has supported hundreds of GIs in low-income and rural communities across India, Gupta et al. (2003) note that women frequently face societal barriers in accessing tools and gaining technological know-how, meaning that they find creative ways of adapting to these constraints instead of innovating to address technical challenges directly (981-982). Similarly, in a study of the Self-Employed Women's Association (SEWA) in India as an example of grassroots innovation, Parthasarathy (2017: 782) notes that members of SEWA were reluctant to view themselves as innovators. Parthasarathy argues that we must broaden our understanding of grassroots innovation to include not only technological and product innovation, but a wider range of areas of socioeconomic activity in which women are active as innovators, for example healthcare, childcare, legal aid, communication, banking, etc. (ibid.). At present, questions of gender justice and recognition of the contributions of women and gender minorities are a blind spot in the GI literature. This is despite the fact that, as argued by Khailil et al. (2020), the role played by women in adapting to local challenges like resource scarcity and climate change related extreme weather events is a strong example of grassroots innovation. Indeed, examples of women-led grassroots innovation in response to challenges such as environmental degradation and economic deprivation abound, from the much-celebrated Green Belt Movement in Kenya (Maathai 2003), to the extensive variety of women-led, non-capitalist enterprises and cooperatives explored in feminist geography and Diverse Economies literature (e.g. Shokooh-Valle 2021, 2020, McKinnon et al. 2018, Gibson-Graham 2016). This suggests that there is a need for greater synthesis between feminist geography, feminist development scholarship and grassroots innovation scholarship, to challenge the patriarchal bias still evident in GI studies.

Whilst GIs in the Global South are frequently depicted as intertwined with struggles for political emancipation, social justice, and radical democracy – albeit with certain blind spots, e.g. gender equity – the literature on GIs in Europe and the Global North is more ambivalent on questions of social justice. Studies on gender equity in GIs in Europe raise similar concerns to the Global South based studies overviewed above. Women and gender minorities have been shown to be excluded from participation in hackspaces and makerspaces (Lewis 2015, Charter and Keiller 2014) and repair cafes (Schägg et al. 2022). This occurs for multiple reasons, including an intimidating atmosphere, a lack of opportunity for beginners to learn from more experienced members, and the impact of broader societal gender roles, which create barriers to women's participation in STEM from a young age (Lewis 2015, Schägg et al. 2022).

Furthermore, in contrast to GIs based in the Global South, GIs based in the Global North have garnered critique for reproducing the dynamics of elitism, classism, and racism which characterise mainstream technocratic forms of innovation as well as forming the structural backdrop to harmful systems of growth-driven extraction, production, consumption and waste. One problematic element here is the focus in much of the literature on replication and up-scaling, which are taken as normative and as necessary routes to enabling GIs to impact positively upon sustainability agendas. Yet, as Tsing has argued (2015: 38-40), the normative focus on up-scaling and interchangeability of projects within Western scientific paradigms has an ideological basis in colonialist strategies of dispossession, expansion, and maximising resource extraction on occupied Lands. This is not just unjust: it is at odds with the conditions of diversity and dynamic relations between different entities found in nature (ibid). In addition, frequent references to the "community" element of GIs often ignore questions of how community is defined, and the processes of inclusion and exclusion implicit in these definitions (Kumar and Aiken 2020). Despite institutional claims that community-level sustainability initiatives are designed to be inclusive (Bulkeley and Fuller 2012), studies have observed that participants tend to be white, middle class or wealthy, and university educated (Franklin et al. 2011, Anantharaman et al. 2019).

The "demographic deficit" (Anantharaman et al. 2019: 178) regarding people from the Global Majority, working class and non-university-educated segments of the population has several explanations. Firstly, the framings and collective narratives adopted by GIs, and the structures and processes they adopt, often reproduce norms of white middle-class professionalism and ideas of morally correct behaviours – reflecting the fact that the founders and core members are typically white middle-class professionals

(Anantharaman et al. 2019, Franklin et al. 2011). This trend has been observed in the UK climate movement at large, and results in people who are not middle-class or white finding these spaces uninviting (Bell and Bevan 2021). Secondly, the demographic skew towards middle-class participants in GIs often means that environmental issues are not framed in ways that resonate with the concerns of low-income communities. For example, framing environmental issues in terms of greenhouse gas emissions rather than inadequate housing, direct exposure to pollution, and unaffordable energy and food prices sidelines some of the key concerns of low-income and Global Majority communities (Bell 2020, Anantharaman et al. 2019). Thirdly, many Western GIs style themselves as apolitical (de Moor et al. 2021, Kenis 2016). Whilst the depoliticisation of sustainability is intended to bridge community divides and thereby make initiatives more inclusive (Chatterton and Butler 2008), this overlooks the fact that the cultural norms and strategies used in GIs are inherently political, and may work against the political preferences of more marginalised groups. For example, GIs dominated by middle class participants display a high degree of trust in government and business actors when considering collaborations, strategic goals, and collective visions for a more sustainable future, and this can be alienating for more disenfranchised communities (Anantharaman et al. 2019).

Overall, there is a lack of clarity over how GIs incorporate social justice concerns regarding gender, race, class, ability, decolonisation, and social diversity in general. Whilst studies situated in the Global South have tended to place more emphasis on GIs as routes to emancipation for oppressed groups, the literature relating to Global North contexts suggests that GIs have a tendency to reinscribe the systemic exclusion of women and gender minorities, working class communities, and people from the Global Majority. Studies of GIs in Global North contexts which analyse their radical and antagonist elements focus on the ability of GIs to challenge capitalocentrism (e.g. de Moor et al. 2021, Chatterton 2016a, 2016b), but have not explored to the same extent how these GIs might challenge or reproduce other oppressive systems, such as patriarchy and white supremacy. This is a missed opportunity, and furthermore, it overlooks the necessity of finding pathways for sustainable resource use and waste reduction which take into account the need to dismantle the multiple intertwined systems of domination which uphold the current linear economy. There is therefore a need for closer examination of these dynamics in studies of GIs and their role in a just transition to sustainable and emancipatory systems for waste. This thesis is intended to begin to bridge this gap.

2.4. Intersectionality: a key ingredient for responding to the waste crisis?

As this review has illustrated so far, both mainstream and alternative / community-based approaches to tackling the waste crisis have not sufficiently engaged with issues of social justice, power, and oppression. There is a need for critical perspectives which challenge not only the capitalistic basis of the contemporary waste crisis, but also, its relationship with other systems of domination, including patriarchy, white supremacy, classism, ablism, colonialism, and heterosexism (see Chapter 1). Otherwise, even the best-intentioned efforts to instigate transitions towards sustainable and equitable resource use inadvertently reproduce oppressive power dynamics. One area of scholarship which has much to offer in this regard is intersectionality. Derived from feminist theory and subsequently used across a broad range of social science disciplines, intersectionality has rarely been applied to waste (although there is an increasing number of critical perspectives on waste which analyse power and social oppression, as Section 2.5. of this chapter will outline). For studies of the social justice dimensions of GWIs – especially in Global North contexts, where grassroots sustainability initiatives tend to be dominated by white, middle-class participants and cultural norms – intersectionality has the potential to shine a critical light on why social justice deficits occur, and how GWIs could more effectively tackle multiple social and environmental crises in a joined-up way.

2.4.1. The emergence of intersectionality as a critical theory

The term intersectionality has been in use since the early 1990s. It refers to how multiple systems of oppression interact to shape "individual lives, social practice, institutional arrangements, and cultural ideologies, and the outcomes of these ideologies in terms of power" (Davis 2011: 68). The term derives from the work of American legal scholar Kimberlé Crenshaw (1989, 1990), who critiqued the way that antidiscrimination laws, the feminist movement, and the anti-racist movement were failing to account for the differentiated experiences of Black women, who face overlapping oppressions on the basis of race, gender, and class. Crenshaw's work builds on a long tradition of Black women's scholarship and activism, which calls attention to the marginalisation of Black women in contexts where "women's issues" referred exclusively to the issues experienced by well-off white women, and anti-racist movements failed to challenge the exploitation of Black women, including within their own ranks

(Bohrer 2019: 31-78, Lorde 2017, Beal 2008). Importantly, intersectionality resists hierarchies of oppression, in which any one axis of oppression (i.e. gender or race) is assumed to be the most significant struggle (Hutchinson 2001). A key strength of intersectionality theory lies in its ability connect subjective experiences of oppression and inequality in everyday life with analysing and working to transform the larger social structures and processes which entrench inequality, including the legal system, government policy, cultural institutions, policing, and more (Walby et al. 2012).

Since Crenshaw's influential scholarship on intersectionality first appeared, the term has evolved, leading to many new interpretations, areas of application, and debates over its core purpose (Walby et al. 2012). In a 2013 paper, Crenshaw, together with intersectionality scholars Sumi Cho and Leslie McCall, suggested that "intersectionality studies" had become a critical field in its own right, with three distinct trends of research: (1) investigation of intersectional dynamics in context-specific inquiries, (2) debates about the scope and content of intersectionality as a theory and methodology, and (3) political interventions employing an intersectional lens (Cho et al. 2013). This helpful typology shows the wide application and versatility of intersectionality. It is used to study the experiences of individuals and groups at the intersection of multiple marginalisations (e.g. Atewologun and Mahalingam 2018), and it is also used to study how social movements, civil society organisations, and policymakers develop – or fail to develop – strategies for political change which transcend a single-issue focus (e.g. Davis 2016, Christoffersen 2021a, Hankivsky and jordan-Zachary 2019). Cho et al.'s paper also highlights that intersectionality is far from settled, given the wide range of ongoing debates on, and differing interpretations of, what it means and how it should be used.

2.4.2. Key debates in intersectionality theory

The many differing perspectives in the literature on intersectionality can be loosely grouped into three key areas of debate. First, debates over whether Black women should be treated as the "normative subject" at the heart of intersectionality (Chantler and Thiara 2017), or whether the concept should be expanded to include any and all marginalised subject positions. Second, debates over whether identity categories are stable or fluid. Third, debates over the neoliberal co-optation of intersectionality, and the extent to which this undermines its usefulness as a liberation theory. I will address each of these debates below.

First, many interpretations of intersectionality from the 2000s onwards have expanded the concept beyond the original three-part focus on marginalised race, gender, and class positions in the USA (Mehrotra 2010). Intersectionality is now used to study other axes of vulnerability, for example migration, colonialism, disability, transgender identity, and homelessness (e.g. Lutz and Amelina 2021, Grech and Soldatic 2015, de Vries 2012, Vickery 2018), and in other contexts around the globe (e.g. Gouws 2017, Hankivsky and jordan-Zachary 2019). In these interpretations, there is no "normative subject" of intersectionality (Chantler and Thiara 2017). Indeed, intersectionality has been advocated as critical theory which can be applied to *all* people, not just marginalised women. As Yuval-Davis (2015) argues, it can be used to analyse social privilege as well as oppression, because positions of privilege are also shaped by intersecting axes of gender, race, class, sexuality, nationhood, and so on. Bohrer (2019: 159) adds that intersectionality is useful for analysing how even people who occupy positions of privilege still interact with systems of oppression in ways which are constraining to their identities, desires, and the possibilities they envision in their lives. These evolutions of intersectionality have led to criticisms that Black women and women of colour are being re-marginalised within intersectionality theory (Chantler and Thiara 2017, Bilge 2014), and that the seemingly endless expansiveness of the term has led to an arbitrariness which deprives it of meaning (Lutz 2014: 7) – leading Christoffersen (2021b) to develop the term "generic intersectionality", referring to interpretations which undermine struggles for racial justice specifically. Nonetheless, others argue that the evolution of intersectionality to include any and all salient axes of power and oppression is important in the context of globalisation (Mehrotra 2010), and that the flexibility of intersectionality and its applicability to many different contexts in a complex world is a hallmark of a successful social theory (Davis 2008).

Second, a significant tension which emerges in the intersectionality literature is the extent to which social categories such as race, class, gender, and sexuality are stable or fluid (Hancock 2007). According to McCall (2005), differing perspectives on this question can be grouped into the anti-categorical, intra-categorical, and inter-categorical approach. *Intra-categorical complexity* treats social categories as stable, and focuses analysis on social groups at specific intersections which make them vulnerable to discrimination – for example Black, working-class women. Whereas *anti-categorical complexity* treats categories as fluid, and deconstructs categories to reveal how the formulation of social identities is used to reinscribe oppression and inequality (ibid.). This deconstructivist approach to social categories is exemplified in Angela Davis's classic text *Women, Race and Class* (2019). Davis argues that hegemonic understandings of gender developed through the intersection of racism, patriarchy, capitalism, and

imperialism during the historical period of industrialisation, European colonialism, and the Trans-Atlantic slave trade. During this time, new constructions of gender and subsequent gender roles developed, as white European women's labour moved from the sphere of economic production (e.g. working in the fields alongside men) to the domestic sphere. A new definition of womanhood emerged, which viewed women as delicate, physically inferior to men, and dependent upon men. Black women were excluded from this construction of womanhood, and enslaved Black woman laboured in brutal conditions similar to enslaved Black men. Therefore, the category "woman" is not innate or stable – it is intertwined with the construction of race and oppressive race relations under capitalism and imperialism (Davis 2019: 1-25).

The anti-categorical approach in intersectionality is useful for challenging the essentialism used to justify systemic oppression. However, it has the disadvantage of "making practical analysis difficult" (Walby et al. 2012: 227). Social categories may not be innate, but they shape lived experience in very real ways. Therefore, McCall (2005) expresses a preference for *inter-categorical complexity*, and recommends that existing social categories be used provisionally and strategically, to analyse configurations of power relations which produce inequalities in specific contexts, while recognising that the categories used to guide this analysis are socially constructed to serve oppressive agendas, and are subject to change. Walby et al. (2012: 231) also advocate for a bridging approach between deconstructing essentialist social categories by showing their fluidity, and at the same time, recognising that these categories take on a provisional stability through their embeddedness in social institutions. In summary, as Davis (2008) argues, the ability of intersectionality to make visible the consequences of race, gender, and class-based oppression, while at the same time revealing the oppressive power dynamics behind the construction of these categories, is one of its principal contributions.

Third, concerns have been raised that intersectionality has been co-opted, deprived of its complexity, and depoliticised over time, to the point where there are doubts over its usefulness as a meaningful liberation theory. These critiques have arisen alongside the institutionalisation of intersectionality in recent years, as the concept is taken up in policy arenas and neoliberal governance strategies, and becomes ubiquitous in feminist academia (Christoffersen 2021a, Bilge 2013). Jibrin and Salem (2015) and Bilge (2013) argue that intersectionality has been conflated with superficial diversity by neoliberal and bureaucratic institutions, resulting in the reification of difference, and implying that segmentations between groups and individuals cannot be overcome, thus undermining collective political action. This

individualised understanding of intersectionality, which stacks up oppressions for marginalised persons and groups in a form of "oppression Olympics", leaves out analysis of power, structural inequality, and the need to transform the material conditions which underpin these inequalities (McKinzie and Richards 2019). An individualised and additive approach to intersectionality misunderstands the original purpose of the theory – to resist notions of a hierarchy of oppression, and to show how social categories change and produce new outcomes at the points of intersection, rather than simply accumulating to reinforce the disenfranchisement of individuals (Mason 2019).

Concerns over the depoliticisation of intersectionality highlight how the term has been misused to reinforce the status quo. However, this does not mean that intersectionality should be abandoned as a liberation theory. Instead, more recent scholarship has sought to reclaim the concept and clarify it, to rescue it from counterproductive interpretations. For example, McKinzie and Richards (2019) argue for "context-driven intersectionality", which is attentive to the power relations relevant in each given case, and works against depoliticisation and the reification of social categories by showing how they are intertwined with institutions and structures that can be mobilised against. In addition, Christoffersen (2021a) helpfully distinguishes between five different interpretations of intersectionality used by equality-focused organisations in the UK, and shows how the most effective interpretation is used by organisations which are intentionally developed to address "multiple mutually constitutive equality issues" (582), and do not treat one single area of inequality, such as gender, as having primacy.

A strong counter to the depoliticisation of intersectionality can be found in political solidarity and alliance-building between groups occupying different social locations in relation to multiple axes of power and oppression. Christoffersen (2021a: 582) argues that equitable "intersectional alliances" can be developed between organisations focusing on different core equality issues, to avoid a tokenistic or reductive approach to addressing multiple marginalisations. The importance of alliances and coalition building for politically radical intersectionality is also highlighted by Bohrer (2019: 231-260), who argues that acknowledging and respecting difference is an important part of effective political mobilisations based on solidarity – and not a distraction from political struggle, as some critics argue. Bohrer, and other scholars of anti-racism and collective liberation, argue that expressions of solidarity rooted in the acknowledgement of difference and incommensurability create possibilities for radical emancipation for all (see also Shookoh-Valle 2021, Dabiri 2021). Being able to understand the systems which shape differentiated social realities (e.g. white supremacy, patriarchy) by paying attention to how those

systems oppress certain groups in interlocking ways, helps *everyone* gain a critical awareness of how our lives are shaped and constrained by these systems, even if we hold certain privileges within these systems. Engaging with the struggles of others helps activist groups deepen their critical understanding of the struggles which affect them most directly, as Frances Beal (2008) indicates in her pioneering 1969 pamphlet *Double Jeopardy: to be Black and Female:*

> If the white [women's] groups do not realise they are, in fact, fighting capitalism and racism, we do not have common bonds. If they do not realise that the reasons for their condition lie in the System, and not simply that men get a vicarious pleasure out of "consuming their bodies for exploitative reasons" (this kind of reasoning seems to be quite prevalent in certain white women's groups), then we cannot unite with them around common grievances or even discuss these groups in a serious manner, because they're completely irrelevant to the Black struggle. (174-175)

Although Beal's pamphlet rightfully focuses on Black women's liberation, her analysis also demonstrates how the broader women's movement can become a more effective political force through engagement with radical anti-capitalist and anti-racist politics, instead of clinging to a shallow iteration of white women's feminism, which individualises patriarchal oppression and obfuscates its roots in a political economy founded upon racial capitalism. Intersectionality therefore helps us understand how the struggles of minority groups against systems of oppression and exploitation are related to *everyone's* liberation (Dabiri 2021). This is not to say that all struggles are *the same* – indeed, meaningful solidarity necessitates discomfort and tension in the navigation of difference (Shookoh-Valle 2021). But when the discomfort of intersectionality is embraced, this guides the formation of effective coalitions and alliances for collective liberation (Shookoh-Valle 2021, Bohrer 2019).

As this brief overview of intersectionality illustrates, it is a dynamic and diverse field. It is known for being challenging to apply in practice, particularly in the context of mainstream policy and organisational agendas, where the concept sits at odds with prevailing single-issue frameworks for addressing inequality (Christoffersen 2021a). This sometimes results in contradictory and counterproductive interpretations of intersectionality (ibid., Mason 2019), giving weight to critiques that the theory has been subsumed by regressive neoliberal hegemony (Jibrin and Salem 2015, Bilge 2013). Nevertheless, the need for intersectionality is increasingly clear, in a modern world defined by accelerating inequality and social crises (Christoffersen 2021a). The increasing urgency of global challenges like climate breakdown, biodiversity collapse, and pollution on a scale unprecedented in

human history requires deep engagement with how these ruptures have complex, intersecting effects on gender, race, class, ability, nationhood, religion, sexuality, and all other axes along which power and oppression are organised. In light of these novel crises, intersectionality has increasingly been applied in the context of environment and climate.

2.4.3. Intersectionality, environmental justice, and sustainability

There is a long history of environmental justice scholars calling attention to how environmental harms are concurrent with social inequality (Agyeman 2000, Agyeman et al. 2002). This scholarship has demonstrated how low-income, Global Majority, migrant, and otherwise marginalised communities are more likely to be exposed to environmental harms – from industrial pollution, to motor vehicle exhaust, to poorly adapted housing – and are more vulnerable to the effects of environmental disasters due to discriminatory policies and practices, despite the fact that marginalised communities contribute little to the anthropogenic causes of environmental degradation and disasters (Agyeman et al. 2002, Adeola and Picou 2016, Pulido 2016, Bell 2020). Environmental justice scholars have called out the blind spots in environmental policy and planning and sustainable development agendas, which treat social inequality and injustice as peripheral, rather than fundamental, to modern environmental issues (Agyeman 2014, 2005). Furthermore, environmental justice scholars writing from an anti-colonial perspective have consistently demonstrated that interventions intended to resolve environmental problems often reproduce oppression, including colonial and racial capitalist dynamics, by denying the land sovereignty of Indigenous peoples and removing agency from people of colour (Fuentes-George 2023, Frandy and Cederström 2017, paperson 2014).

From the 1970s onwards, the environmental justice movement emerged from grassroots groups resisting the effects of environmental degradation on the most marginalised, for example the mass mobilisation against toxic waste dumping in a predominately Black area in Warren County, USA (McGurty 1997). It is now a global movement, with marginalised and minoritised communities mobilising against land-grabs, pollution, health inequalities, deforestation, resource extraction, and many other environment-related issues which impact them disproportionately (Martinez-Alier et al. 2016, Adeola 2000). Since the turn of the millennium, the concept of climate justice has risen to prominence, as activists and scholars critique and protest the disproportionate impact of climate change on the global poor, racialised minorities, women and gender minorities, disabled people, the elderly,

and children, and have called for climate change mitigation and adaptation policies which redress these injustices (Tokar 2019, Schlosberg and Collins 2014).

As should be evident, climate justice and environmental justice have many affinities with intersectionality. However, much of the climate justice scholarship addresses vulnerability to climate change on a single-axis basis (e.g. gender), leading to critiques that climate justice scholarship can be essentialising in its treatment of categories of vulnerability (Mikulewicz et al. 2023). It is only in more recent years that climate / environmental justice and intersectionality have begun to be discussed together, for example to analyse vulnerability to environmental disasters across multiple axes (Vickery 2018, Ryder 2017). Mikulewicz et al. (2023) call for greater synergy between intersectionality and climate justice in critical studies of climate change, and highlight the significant areas of overlap between the two, in both theory and methodology. These areas of overlap include a commitment to radical theory which centres marginalised populations and challenges dominant epistemologies and ontologies, a commitment to grassroots-led strategies for political action, and a preference for qualitative methods which reject positivisim, give an epistemic advantage to research participants, and embrace interdisciplinary and cross-dimensional analyses (see Table 2.1).

Intersectionality makes a number of contributions to environmental and climate justice. It adds critical and conceptual depth to these fields, by providing analysis of how threads of oppression visible in instances of environmental injustice can be traced to their historical, institutional, and multi-scalar origins (Malin and Ryder 2018). It sheds light on how achieving environmental justice depends on recognition of the mutually constituted and mutually reinforcing nature of structural oppressions (ibid). Di Chiro (2020) argues that intersectional perspectives on environmental justice reveal how true ecological flourishing can only be achieved with an abolitionist approach to dismantling interconnected structures of oppression. This argument is echoed by Stephens (2024), who highlights the patriarchal, colonising, racist, capitalist underpinnings of technocratic approaches to addressing climate change, and advocates for new strategies grounded in social transformation, feminism, and anti-racism. Although Stephens does not use the term intersectionality, their analysis makes clear that climate justice is not simply a matter of changing economic systems or placing a greater emphasis on social innovation: it requires abolishing multiple interconnected systems of oppression – the essence of an intersectional political approach. Intersectionality scholarship which concerns environmental justice highlights that people who are vulnerable to environmental hazards and disasters are not simply victims. Rather, their

marginalised social positionings also equip them with skills, resilience, and an ethic of "survival, destiny, and hope" (Shepherd et al. 2022: 1681), which can be drawn upon to adapt, innovate, and resist in the face of challenging circumstances (Vickery 2018). An intersectional approach to environmental and climate justice thus centres the agency of people and communities at the intersection of multiple oppressions, and demonstrates how experiences of marginalisation also function as sources of power, for bottom-up, grassroots-led strategies for change.

Theoretical links	Radical theory roots
	Focus on marginalised populations (their interests and agency)
	Challenging dominant epistemologies and ontologies
Methodological links	Similar strategies for pursuing justice (political action)
	De-emphasizing of positivist methodologies
	Epistemic advantage afforded to research participants
	Similar methods (qualitative, participatory action research, reflexivity)
	Embracing cross-dimensional analyses
	Call for interdisciplinarity and alliances across traditional sectoral and social divides

Table 2.1. Theoretical and methodological links between climate justice and intersectionality
 (adapted from Mikulewicz et al. 2023: 1277).

Increasingly, intersectionality has been applied in practice to analyses of sustainability transitions, drawing attention to the blind spots of techno-optimist innovations such as smart home technology (Sharma et al. 2023). It is advocated as a crucial intervention for embedding justice in energy and climate change decision-making processes, for participatory climate change adaptation governance (Ryder 2018, Amorin-Maia et al. 2022, Aruga et al. 2024), and for understanding the multidimensionality

of perspectives and community responses to sustainability-focused development and innovation such as new renewable energy projects (Mejía-Montero et al. 2023).

When it comes to waste, intersectionality has been explicitly drawn upon in studies of power relations and experiences of marginalisation and resistance among workers in the informal waste sector, in diverse Global South contexts (Chigwenya and Wadzanai 2020, Shepherd et al. 2022, Wittmer 2021). Intersectional thinking is also evident in studies of social movements tackling waste dumping as an environmental justice issue which disproportionately impacts groups already marginalised on the basis of race, class, and indigeneity. Scholars have examined how intersectional politics factor into the ways grassroots movements frame the problem and pursue certain solutions over others (Pellow 2004, Bullard 2000). For example, Krauss (1993) contrasts the perspectives and strategies of African American, Native American, and white working-class women activists in organizing against toxic-waste dumping in the United States. This emerging body of literature shows that there is much to be gained from approaching contemporary challenges of sustainable and socially just resource use from an intersectional perspective, especially when considering how agendas for sustainable resource management interact with the social and political systems which shape contemporary identities and lived experience. Generally speaking, however, intersectionality remains a marginal approach in scholarship on sustainability transitions and on waste in particular. This is especially true in Global North contexts such as the UK, where waste is more commonly analysed as a challenge for ecological economics and techno-solutionism. Furthermore, where intersectional perspectives on waste do exist in the literature, they focus on the lived experience of waste workers and activists, but do not address ontological questions about waste itself: how it is constructed and perceived, its diverse meanings, its relationship to society and to multispecies webs, and its material complexity (Skarp 2021). There is therefore a need for more critical scholarship on waste which takes an explicitly intersectional approach, and equally, intersectional approaches to waste should engage more deeply with waste itself as an object of study, in all its ontological and political complexity. This thesis is intended to accomplish both.

2.5. Discard Studies: power, systems, and materiality in the study of waste

Having highlighted the limitations and blind spots of both mainstream and alternative waste management strategies, and having discussed intersectionality as a potentially powerful tool for more effective and justice-focused approaches to waste, I will now turn to discard studies as an exciting new area of scholarship. Discard studies challenges the ineffective and misleading claims of mainstream waste management strategies, and it simultaneously challenges the lack of attention given to intersecting systems of power and oppression in critical studies of waste. The term "discard studies" emerged with the founding of the online academic hub "discardstudies.com" by critical waste scholars Max Liboiron, Josh Lepawsky, and others in 2010 (Liboiron 2018). A definition of the field of discard studies is provided by Liboiron on the website:

> Unlike studies that take waste and trash as their primary objects of study, discard studies looks at wider systems, structures, and cultures of waste and wasting [...] we question the premises – the assumptions of what seems natural, normal, logical, and inevitable – of waste to investigate the wider systems that allow things to seem natural, normal, logical, and inevitable in the first place [...] We use the term "discard studies" instead of "waste studies" to ensure that the categories of what is systematically left out, devalued, left behind, ruined, and externalized are left open. Waste studies tend to focus on trash, rubbish, and recyclables. But discards can include people, landscapes, futures, ways of life, and more (Liboiron 2018).

This critical turn from looking at waste as a standalone object to looking at systems of discarding is highly significant for the aims of this thesis. As we have already seen in Section 2.1. of this chapter, dominant visions of sustainable consumption and circular economy value the perspectives of privileged societal actors (e.g. multinational private sector waste firms and well-funded entrepreneurs), while discarding the perspectives and needs of people and communities who are 'othered' in various ways (e.g. informal waste workers, and low-income, time-poor households). Even grassroots, non-capitalist waste interventions foreground certain sets of waste imaginaries while discarding others, often leading to the reproduction of Eurocentric, masculinist structures and norms. Casting a wider lens to look at whole systems of discarding, rather than focusing solely on waste as an output of these systems, allows for a more nuanced and politically useful analysis of today's multifaceted waste crisis, and what the pathways forward might be.

2.5.1. Reframing waste: materiality and agency

One of the foremost contributions of discard studies is that it debunks pervasive "myths" about waste which have dominated scholarly and policy approaches as well as popular understandings of what waste is (Liboiron and Lepawsky 2022: 1-33). Waste has traditionally been framed as an object distinct from the sphere of humanity. Indeed, the very concept of "waste management" – and debates surrounding the optimal mode of waste management – reinforce the binary opposition of human society and waste, with waste occupying a subordinate and reviled position within this binary (Moore 2012, Hawkins 2006). It implies that humans act upon the world through waste and through the choices we make to manage or mis-manage it (Gregson and Crang 2010); an assumption which is visible in decades of environmental campaigning that evokes images of humans befouling nature with our litter and pollution (Hawkins 2006: 8). Moore (2012) explains that this understanding of waste as a manageable object represents a dualistic ontology, in which humans and more-than-human entities are viewed as fundamentally separate. It also stems from a positive ontology, in which waste is assumed to possess fixed properties and qualities – although what these properties are considered to be is subject to change (ibid).

In the waste-as-object framework, waste has been viewed as both a hazard and a resource (Moore 2012). The framing of waste as a hazard leads to the normative idea that waste must be eliminated or, at the very least, contained and separated from society (Skarp 2021: 18). This is underpinned by the belief that such a separation is technically possible – a belief which is shattered by discard studies scholars, as we shall see. In recent decades, concurrent with the rise of sustainable development discourses and the popularisation of the circular economy as a strategy for green growth, there has been a shift away from viewing waste as a hazard, and towards viewing it as an economic resource. This view has come to dominate national and international waste policy approaches (Lane 2011, Levidow and Raman 2019), and has been central to the configuration of the present-day waste management regime, in which waste is viewed first and foremost as a financialised commodity (Gregson and Forman 2021, see also Section 2.1. of this chapter). Whilst understandings of waste as either a hazard or a resource might seem diametrically opposed, Moore (2012) argues that they stem from the same set of assumptions: that waste is manageable, that it has fixed properties, and that it is a passive object.

The waste-as-object view can be contrasted with relational understandings of waste, also referred to as the "structural-symbolic approach" (Reno 2015: 558, Moore 2012). This approach is attributed to Mary Doulgas's influential book *Purity and Danger* (1966), which espouses the view that waste has no fixed

properties but is instead "matter out of place" – that which threatens to upset the established order in any given system (Liboiron and Lepawsky 2022: 25). For a sense of "good order" to be imposed, undesirable materials, things, words, and even groups of people deemed to threaten order are placed in the category of "dirt" and rejected from the system (Reno 2015). The rejected dirt then loses its identity once it has entered the category of common rubbish, thus ceasing to pose a threat to the dominant system (Douglas 1966, cited in Moser 2002: 90). According to this theory, waste is fundamentally symbolic in nature: defined by what it represents in relation to dominant social systems. The relational understanding of waste finds some currency within discard studies, particularly analyses of the techniques of power used to uphold dominant systems by "rejecting, wasting, annihilating, destroying, deprioritising, or externalising some things in favour of others" (Liboiron and Lepawsky 2022: 62). However, discard studies also moves beyond this framing of waste, and is attentive to what is not captured by viewing waste in purely structural-symbolic terms (Reno 2015).

Discard studies scholars call attention to how both the waste-as-object and structural-symbolic framings of waste overlook its materiality, agency, and dynamic interactions. Firstly, close engagement with the materiality of waste, and with the specificities of how its elements interact with other entities in its afterlives following disposal, challenges the notion that waste is a manageable object. Waste can never disappear materially or be fully removed. Instead, it leaves residues and traces, which governance bodies seek to invisibilise at the expense of communities left to deal with contaminated soils, water, air, and food systems (Balayannis 2020, Liboiron and Lepawsky 2022). Discard studies exposes these material traces, and interrogates the techniques used by powerful actors to obscure or deny them, for example setting regulatory thresholds for "safe" levels of pollution that effectively amount to giving extractive industries permission to pollute (Liboiron 2021, Shadaan and Murphy 2020), and clinging to the fiction that "the dose makes the poison" when it comes to the chemical contamination in bodies from plastic and other wastes (Liboiron 2016: 90). This hides from view the many forms of harm – physical, cultural, spiritual, and relational – which occur even at supposedly safe levels of pollution, as well as the injustice of depriving affected communities of sovereignty over their lives (Liboiron 2021, Shaadan and Murphy 2020).

Secondly, discard studies challenges the structural-symbolic framing of waste, by showing that waste has agency and material realities and afterlives which exist independently from the symbolic construction of waste as "matter out of place" in human systems (Holmberg 2021, Furniss 2017). This

becomes particularly apparent when considering plastic waste, which endures in the environment on timescales far beyond what can be accounted for in existing conceptual frameworks (Liboiron 2016). For example, in the oceans, plastic particles become completely entangled with organic bodies, creating new habitats for sea life, and altering marine ecosystems as plastics and organic species travel together (de Wolff 2017). Considering waste not only in relation to human culture, but in terms of trans-species encounters, thus challenges anthropocentric framings of waste (Reno 2014, Holmberg 2021). Furthermore, monomers and plasticisers which leach from plastics also blend with, and disrupt, endocrine systems in bodies, challenging the notion that waste is "matter out of place" by becoming completely enmeshed in bodily systems, to the point where the notion of clear boundaries between insides and outsides is redundant (Liboiron 2016). Conceptualising waste in terms of entanglement shows how waste is not merely a reflection of culture and society, or a way in which humans act upon the world. Waste also has agency in actively shaping the bodies, environments, cultures, and societies it is entangled with (Arnall and Kothari 2020, Gille 2010). Discard studies borrows from science and technology studies and ideas of "third nature", to explore how waste and its alterations to ecosystems and environments actively construct new relations, values, and ways of living for human communities (Akuoko et al. 2023, de Wolff 2017). In other words, waste is not an object we manage, and nor is it merely a symbolic reflection of how we maintain the boundaries of purity and danger in our societies. Waste is an agent which acts upon us.

2.5.2. Scale and scalar mismatches

A key contribution of discard studies – setting it apart from mainstream perspectives on tackling global waste challenges – is its focus on scale and scalar mismatches. The concept of a "scalar mismatch" refers to the mismatch between the waste-related harms, such as global plastic pollution, which provoke considerable alarm in public discourse, and the proposed "solutions" to these harms, which stage a performance of taking action, but do not actually address the problem in any meaningful way (Liboiron 2021: 81-111). For example, Liboiron and Lepawsky (2022: 40-41) and Liboiron (2016) critique the widespread view that tackling plastic waste in the ocean is a matter of physically capturing and removing visible pieces of plastic. This overlooks the fact that 95% of ocean plastic is in the form of microplastics smaller than 5mm. Proposed ocean cleanup operations, which envision the use of large machinery to capture and remove plastic from water, are mismatched with the scale at which ocean plastic waste occurs, in the same way that "you don't put a band-aid on a skin cell" to treat damage to

66

the cells in an arm (Liboiron and Lepawsky 2022: 45). Even though an arm is made up of skin cells, arms and skin cells are not the same thing, and therefore the same treatment cannot be applied to a broken arm and to damaged cells (ibid). Whilst attmepts to address waste at a particular scale – e.g. the scale of visible plastics floating in the ocean – are not always ill-intentioned, they shift responsibility for pollution away from the source of the pollution (Levidow and Raman 2019). Such processes of "re-scaling" adhere to ecological modernisation agendas which prioritise technofixes over system change, and have been critiqued by Levidow and Raman (2019) as being responsible for systemic failures in waste reduction strategies and policymaking. In the example of ocean plastic waste, Liboiron and Lepawsky (2022: 45) and Liboiron (2021: 101) argue that it is necessary to determine the system-level relationships which create the conditions for plastic waste to proliferate in the oceans, and to intervene to change these conditions, instead of attempting simply to remove the plastic waste which can be seen with the naked eye or caught by machines. This typically involves legislative change to tackle microplastic pollution at source, for example the phasing out of cosmetics containing microbeads in the State of California (Liboiron 2016: 91).

Liboiron and Lepawsky's concept of "scalar mismatches" (2022: 39) and Levidow and Raman's (2019) attention to processes of "re-scaling" in eco-modernist waste management regimes, are useful frames for the critiques of mainstream waste reduction strategies described in Section 2.1. of this chapter – specifically the mismatch of seeking to increase recycling without attending to primary production (MacBride 2019), and the mismatch of blaming consumers for poor recycling behaviours while ignoring the infrastructural and ideological conditions which determine how materials move through consumer society (Liboiron 2021, Seyfang 2009). However, Liboiron and Lepawsky (2022) caution against a universalist understanding of waste, in which it is assumed that scaling analysis up to the level of growth-driven economic systems leads to definitively "knowing" waste. Rather, waste has heterogenous meanings shaped by a multitude of relationships, depending on how it is situated in different contexts (35-59). Configurations of waste are not always, or not only, the result of profit-driven production systems which treat environmental impacts as an externality (Liboiron 2013). Waste, and responses to it, also reflect, for example, ethno-religious norms of civilisation and cleanliness (Furniss 2017), techniques of settler-colonial control (Stamatopoulou-Robbins 2021) and shifting social relations in post-colonial contexts (Uwa 2018, Braun and Traore 2015). Attention to scale means understanding the "relationships that matter" in each given case, and identifying interventions at the appropriate scale to

tackle waste, rather than assuming that totalising solutions can be found with a zooming out approach to waste as a global phenomenon (Liboiron and Lepawsky 2022: 45).

2.5.3. Disposable life

Another important contribution of discard studies is its ability to illuminate not only how materials and objects are discarded, but also the discarding of certain bodies and lives in the maintenance of dominant systems. As Liboiron and Lepawsky (2022) argue, all systems require processes of classification and sorting; maintaining the boundaries of the system by differentiating what is within from what is without. Discarding is not inherently violent, but processes of discarding are always tied to power, and discarding is often reflective of, and active in perpetuating, violent systems (ibid). In the context of current global power structures, systems of discarding lead to exclusion and violence against certain groups deemed redundant or threatening to the integrity of capitalist, ethnonationalist, patriarchal, and otherwise supremacist systems -- for example disabled and long-term sick people and refugees (Reno 2015). The removal of redundant or undesirable peoples, such as slum-dwellers and the homeless, from spaces where objectives like urban development are being pursued, shows how governance functions *through* waste. The association of certain groups with waste and waste generation, and the subsequent removal of these groups, consolidates the authority of governing bodies and a hierarchical social order (Lau 2023: 1595, Moore 2012).

A crucial point for discard studies is that marginalized lives are not only discarded because they are deemed hazardous or outside the bounds of acceptability in the maintenance of established power structures. The discarding of certain bodies and lives is a necessary condition for extractivist and supremacist systems to proliferate. Katz (2011) has demonstrated this in relation to the treatment of working-class Black and brown children in the USA, where the prison industrial complex functions as a waste management regime, and racialized young people – "children as waste" (51) – are a profitable feedstock for the privatised prison and security sectors, which work in partnership with the neoliberal, white supremacist state. More recently, Vergès (2021) has used the term "the politics of disposable life" (16) to describe the neo-colonial and patriarchal dynamics of how migrant women of colour are instrumental in cleaning and processing the waste produced in sleek urban centers. Their essential labour is rendered invisible by the system it maintains, and their own health and vitality are sacrificed in order to sanitise these spaces for the privileged, so that capital accumulation can proceed undisrupted

(Vergès 2019). They are human parts of the global waste management infrastructure which, under liberal governance models, is considered most successful when it is invisible and works to invisibilse waste (Reno 2015: 561).

Examples of marginalized bodies being treated as pollution sinks under colonial and neo-colonial systems are particularly prevalent in anti-colonial discard studies literature. Scholars and activists call attention to how Indigenous, non-white, female and minority gender bodies are disproportionately exposed to industrial chemical and air pollution, to toxic waste exports, and to ultra-processed food in plastic packaging, which leaches endocrine-disrupting chemicals, causes diet related disease, and disrupts traditional livelihoods and Land relations (Shaadan and Murphy 2020, Akuoko et al. 2023, Peryman et al. 2024, Fuller et al. 2022, Liboiron 2021, Ngata 2018). Crucially, these perspectives show the inseparability of waste problems from the multidimensional politics of disposable life, and make clear that solutions to waste as an environmental issue must be intertwined with broader frameworks for liberation, justice, and sovereignty for Indigenous communities (Liboiron and Cotter 2023).

Yet discard studies also rejects simplistic framings of discarded communities as victims, and resists the implicit assumption that being associated with waste – for instance working as a waste picker or cleaner – is inherently debasing. As Millar (2020) argues, such assumptions harken back to uninterrogated and unnuanced ideas of waste as nothing more than a symbolic representation of abjection (Moore 2012). By failing to interrogate waste itself – its complexity, agency, and generative potential – such straightforward perspectives on disposable life unwittingly reinscribe the hierarchies of domination under which waste and waste work are conflated with being racialised as Black and "other" to the white-supremacist, consumerist, patriarchal default (ibid). In addition, conventional studies of pollution and the environmental injustices of waste have been criticized by anti-colonial discards scholar Murphy (2017) for being almost entirely damage-centred. Murphy argues that these studies:

> [render] lives and landscapes as pathological. Such work tends to resuscitate racist, misogynist, and homophobic portraits of poor, Black, Indigenous, female, and queer lives and communities as damaged and doomed, as inhabiting irreparable states that are not just unwanted but less than fully human. (496).

Whilst discard studies scholars are highly critical of the violence perpetuated by systems of discarding (Liboiron and Lepawsky 2022), they push back against this kind of damage-centred research (Tuck and

69

Yang 2014). For example, Millar's (2020) study of the *catadores* (informal waste workers) in Northern Brazil instead explores how intricate and innovate life-worlds are developed by the *catadores*, in a manner which does not conform to hegemonic ideas of growth, progress, and social distinction. Millar's study, and other studies of alternative economic spaces and practices which flourish under conditions of dispossession from dominant capitalist systems (Tsing 2015, Millar 2008), subvert the philanthropic and ultimately counterrevolutionary agenda of helping discarded communities to "transcend" waste (Millar 2020). Indeed, the floods of discards which inundate marginalized communities are in some cases used in processes of world-building (Murphy 2017), and act as a bulwark against becoming vulnerable in other ways – as in Akuoko et al.'s description of residents of Tema New Town, Ghana, using beach plastic to construct flood defenses which fortify the settlement, and the life-worlds therein, against the increasing instability of the coastline in the face of climate change (2023: 12).

In summary, discard studies' treatment of the politics of disposable life offers nuanced and original perspectives on well-established environmental justice discourses. It combines concern for how marginalised communities are discarded by increasingly violent and oppressive systems, with detailed attention to the agency, potentiality, and political possibilities of waste and life amongst discards. It is therefore not only a framework for analysing waste and its associated social and environmental crises, but also for strategizing and developing theories of change (Liboiron and Lepawsky 2022).

2.5.4. Discarding well

A final contribution of discard studies which is of note here is its focus on finding new paradigms for discarding. Rather than seeking to eliminate waste – a goal which sits uncomfortably close to fascistic strategies of annihilating undesirable matter and lives – discard studies recognises that waste cannot be eliminated, and this is not inherently a bad thing (Liboiron and Lepawsky 2022). In fact, Hawkins (2006) offers an early defence of waste as a necessary and ethically important part of existence, writing that "styles of garbage elimination […] can be located within Foucault's 'arts of existence': all of those actions and rules of conduct through which we organise ourselves according to particular ethical and aesthetic criteria" (24). Taking an active interest in this "ethos of disposability" therefore leads to a different set of questions. Instead of asking how waste can be stopped, we can instead ask: what do our waste habits tell us about who we are, and how we exist in relation to the human and more-than-human others with

whom we share our "habitus"? (ibid.). What responsibilities do we have towards the things we discard, and how are our responsibilities to others enacted through discarding?

This important philosophical perspective from Hawkins's landmark 2006 book, *The Ethics of Waste*, has been taken up within discard studies over the years. The interest in finding new paradigms for discarding differently and better, in a manner which enhances justice and quality of life, stems from increasing recognition that there are many forms of waste which cannot be undone or transformed into having economic or use value (Gille 2010). This includes Persistent Organic Pollutants, microplastics, and chemical wastes which cannot be disentangled from bodies and Lands (Murphy 2017). A number of studies have begun to detail the non-financial forms of prosperity which can be attained through living and working with discards; perspectives which actively subvert traditional framings of waste as either an abject hazard or an economic resource (Lau 2023). These include the development of solidarity networks, deep democracy, and pride in identity as waste workers (Zapata-Campos et. al. 2022, Zapata-Campos et al. 2020, Millar 2020, 2008), the affective satisfaction and skills gained through developing intimate knowledge of materials and discards in processes of scavenging (Reno 2009, Lane 2011), and expressions of care practiced in the stewardship of discards during processes of reuse, repair, and composting (Hobson 2020, Morrow and Davies 2021, Lau 2023). By paying attention to the interpersonal and ethical dimensions of living well with waste, these studies also challenge the mainstream agenda of techno-solutionism, which values engagements with waste only insofar as they can be upscaled and replicated across contexts, to help achieve growth-oriented economic objectives (Morrow and Davies 2021).

In their book *Discard Studies*, Liboiron and Lepawsky theorise a new framework for "discarding well" as a theory of change, picking up on these important themes (2022: 125-152). A core concern for the authors is that there is no one-size-fits all way of discarding well. Instead, they draw attention to incommensurability as a central consideration for attempts to discard well in each context. That is: "there may be no single 'good' that can or ought to be achieved through change […] some goods may clash with one another […] When such clashes happen (a normal and frequent experience), additional iterations of change need to be pursued" (129). They illustrate this point with the example of snow-clearing in Karlskoga, Sweden, where the municipality made a decision to discard snow differently, prioritising the clearing of pavements before motorways, to better meet the needs of the predominantly female pedestrians who made more frequent use of the pavements and were therefore at greater risk

of injury from uncleared snow and ice. In this example, the privilege of predominantly male drivers is discarded for the benefit of predominantly female pedestrians. However, this alternative way of discarding prioritises the needs of able-bodied pedestrians while doing little for wheelchair users, and furthermore, does not address other gendered hazards embedded in the practice of snow-clearing, such as the spread of compacted plastic particles from tire dust, which exposes women and the very young to disproportionate harm from endocrine-disrupting chemicals (134-140). Liboiron and Lepawsky's example demonstrates the fallacy of universalist solutions, and the importance of acknowledging that some sets of needs are incompatible with others, even in justice-focused interventions. The authors' theory of incommensurability, and the importance of accountability and ongoing strategising to address inequities, speaks to intersectional feminist scholarship, which leans in to such tensions, as women at multiple marginalised social locations attempt to develop solidarity across difference and navigate inevitable tensions (Bohrer 2019, Lorde 1982).

Closely related to reflections on the non-erasability of discards and discarding is the notion of accountability "to what is discarded in the system, including what is necessarily discarded from a reworked or changed system" (Liboiron and Lepawksy 2022: 152). Accountability is an important element of discarding well. Again, there is no universal definition or blueprint for accountability. Liboiron (2021: 126) describes an example of accountability to discards in the practice of "rematriating" the remains of scientific samples such as fish guts, by returning them to the water after examining them in a laboratory setting. This mirrors another example they describe, of an Indigenous Inuk hunting trip in which unused seal skins were also returned to the Land "to feed our relatives [non-humans]" (41). This practice of honouring discards opposes the expectations of a non-indigenous observer, who is described as upholding the belief that Indigenous hunters "use the whole animal", and that maximum value should be extracted from waste through its recommodification, for example for the generation of biogas (ibid). In this example, practicing accountability to discards is an actively anti-colonial stance: it refuses the appropriation and commodification of non-human entities under settler-colonial frameworks of resource valuation. Discard studies invites us to be curious about how practices of discarding well interact with dominant systems and countervailing impulses in each context.

The lack of universality in the core theories of discard studies could be considered a limitation of the field. However, I argue that, much like the case of intersectionality theory, the open-endedness of discard studies, and the invitation it offers to investigate the unique dynamics relevant to each case,

make it powerful as a critical field of study (Davis 2008, McKinzie and Richards 2019). The various conceptual perspectives from discard studies described above allow for disruptive and transformative analysis of waste and waste interventions in different contexts. Typically, research which falls under the umbrella of discard studies has tended to focus on analysing and critiquing dominant waste regimes, infrastructures, policies, and scientific / ontological paradigms (e.g. Fuller et al. 2022, Liboiron 2021, Furniss 2017, Reno 2015). There are comparatively fewer studies of grassroots waste innovations which explicitly draw on perspectives from discard studies. In this thesis I therefore intend to analyse GWIs using the various concepts and orientations from the discard studies literature described above, demonstrating a new area of praxis to which these disruptive theoretical perspectives can add significant value.

2.6. A novel conceptual framework for transformative approaches to waste

So far in this chapter, I have explored the shortcomings of existing strategies for dealing with the immense environmental and social challenges posed by current global waste crises. I have identified the sphere of grassroots innovation as a promising space for developing more radical strategies than mainstream, capitalist, circular economy frameworks allow for. At the same time, I have highlighted the gaps and unanswered questions regarding the position of grassroots waste innovations in relation to social justice across multiple axes of power and oppression, and the need for deeper engagement with structures such as patriarchy, white supremacy, classism, and colonialism, which can be perpetuated even in well-intentioned, non-capitalist and community-based waste interventions. I have introduced intersectionality as a critical theory and scholarly tradition which holds much promise for unlocking these issues, and for developing waste interventions which address multiple interconnected struggles. Finally, I have introduced the dynamic and exciting new field of discard studies, which is adept at incorporating analyses of systems of power and oppression in relation to waste, as well as offering fresh perspectives on waste itself, rooted in its materiality, agency, and generative capacities, and putting forward fresh strategies and visions for discarding differently and better.

As should now be clear, there are close affinities between intersectionality and discard studies. However, the two critical fields have not yet been explicitly discussed together. Greater synthesis between discard studies and intersectionality would be useful for analysing waste interventions, and

would help to address the deficit in attention to power, oppression, and social justice across multiple axes in both mainstream institutional and alternative community-based approaches to waste, while simultaneously foregrounding the material, political, and systemic intricacies of waste and discarding.

2.6.1. Synthesising key themes in intersectionality and discard studies

Drawing on insights from both intersectionality theory and discard studies, I identify four core contributions which the alignment of these fields can make to transformative approaches to waste. Together, these four themes form a new conceptual framework for intersectional analysis in relation to waste and strategies for tackling its associated harms and injustices. The four themes are:

1. **A multidimensional analysis of harm:** Understanding how multiple axes of power and oppression intersect to produce specific power structures, and how discarding and waste are always tied to such structures.

2. **Multidimensional approaches to resistance:** Recognising the need to transform multiple oppressive systems in seeking just and effective changes. Connecting micro and macro scales of resistance, and emphasizing the value of grassroots action for meaningful system change.

3. **A focus on the importance of good relations:** The development of more just systems requires solidarity, coalition-building, accountability, honoring more-than-human entanglements, and navigating the tensions and incommensurabilities which arise when undertaking this work.

4. **A focus on rejecting essentialism:** The categories used to uphold systems of discarding and the hierarchies which order social life are constructed, rely upon stereotypes, and reflect dominant power relations which are often oppressive. Essentialism should be challenged, while at the same time acknowledging how dominant categories are deeply entrenched in social institutions and shape lived experience.

Table 2.2., below, outlines in more detail how these four themes emerge in intersectionality and discard studies respectively.

Theme	Emergence in intersectionality theory	Emergence in discard studies
(1) Multidimensional analysis of harm	Intersectionality sheds light on how multiple axes of power/oppression interact to produce contextually specific outcomes, through their sedimentation in structures and institutions as well as in the lived experiences of individuals.	Waste and systems of discarding are intertwined with multiple systems of power and oppression which cause various social injustices as well as environmental harms. Oppressive systems of discarding and harmful waste patterns are upheld by institutions, policy mechanisms, and governance structures.
(2) Multidimensional approach to resistance	Intersectionality is concerned with strategies for resisting or alleviating structural oppression, which transcend a single-axis focus and instead tackle multiple intersecting oppressions simultaneously.	In order to resist the intersecting harms enacted by current systems of discarding, alternative systems and practices need to be developed. These alternative systems and practices should have socially just outcomes across multiple axes of power/oppression.
(3) Importance of good relations	Practicing intersectionality requires the building of solidarity and intersectional alliances across distinct (but dynamically related) social justice struggles. Partnerships are equitable and reciprocal. Discomfort and tension are a necessary part of this process and should be navigated rather than minimised.	Reshaping systems of discarding requires recognition of the incommensurable perspectives of different social groups. These tensions must be acknowledged, and there must be accountability to all perspectives on an issue. Reducing the harms of waste requires active solidarity at the grassroots level, and in particular a commitment to justice for Indigenous communities.
(4)	Some interpretations of intersectionality emphasise that	Systems of discarding rely upon sorting and categorisation, to determine what should

| Rejecting essentialism | social categories (e.g. gender, race, class) are not innate or stable, but socially constructed and fluid. Contemporary social categories are formulated at the points of intersection between different systems of power and oppression, and the reification of these categories reinscribes inequality. Deconstructing supposedly essentialist categories subverts oppressive power relations. It also resists universalising narratives of social progress for marginalised groups, by emphasising the importance of context and specificity in each case. | be kept and what should be discarded. Systems of discarding uphold specific social conditions, in which some sets of needs are given priority at the expense of other sets of needs. Deconstructing the essentialist categorisations used to create these systems can help achieve more socially just outcomes.

In addition, discard studies rejects universalist explanations of discarding, and the idea that universal solutions can be found to problems of excess waste. Instead, focus is placed on the unique and specific relationships which matter to how waste is situated. |

Table 2.2. Conceptual framework for transformative approaches to waste.

Using this framework, it is possible to analyse the intersectional potential of grassroots waste innovations (GWIs). The framework helps to illuminate previously unexplored aspects of GWIs, prioritising social justice and critical perspectives on waste which are alert to its inextricability from dynamic power systems. The combination of perspectives from intersectionality and discard studies is a novel way of analysing the potentiality of GWIs, beyond a narrow focus on their capacity to contribute to mainstream waste and resource management agendas. In addition, this novel conceptual framework adds value to intersectionality theory by demonstrating its relevance to ongoing and emerging global challenges, particularly in the realm of sustainable development and exciting new interdisciplinary fields in the twenty-first century, such as discard studies. Finally, my conceptual framework is intended to help cement and further theorise discard studies as a crucial intervention into studies of waste and wasting which prioritise multifaceted social justice and power analyses.

Ultimately, this novel conceptual framework is designed to reveal the ways in which GWIs can offer transformative approaches to waste, which confront multiple injustices. This is the core objective of this thesis. Figure 2.2., below, illustrates how the framework contributes to this objective.
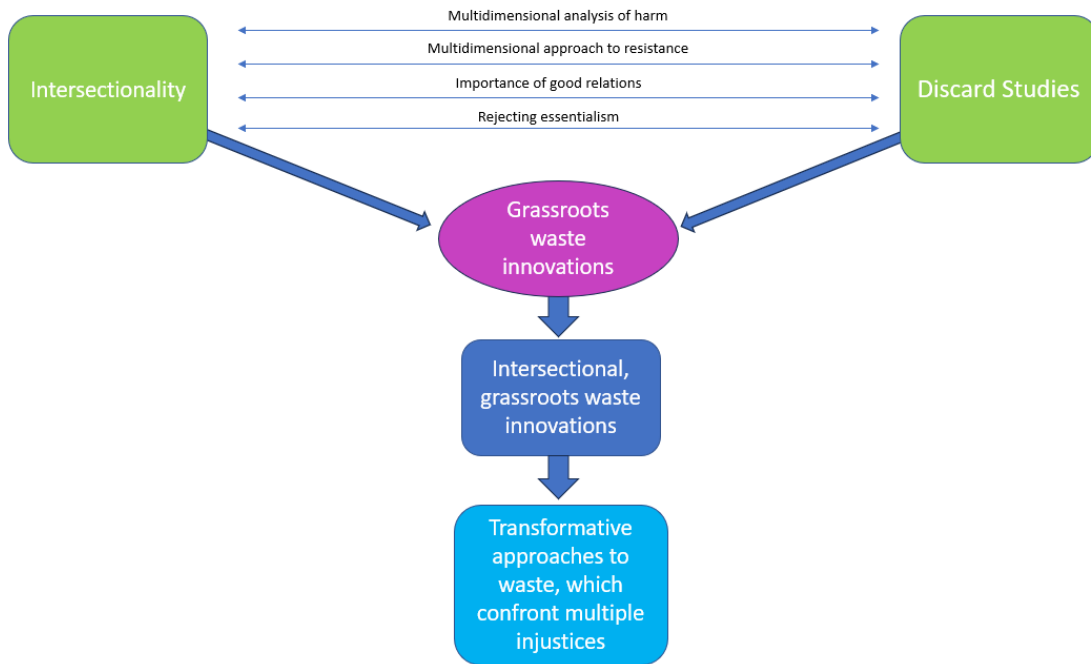
Figure 2.2. Conceptual framework for transformative approaches to waste.

2.6.2. A note on the use of intersectionality in this thesis

Before proceeding, a brief clarification is needed on how I interpret and make use of intersectionality in this thesis. As discussed in Section 2.4., intersectionality is a theory with an extremely dynamic history, and there is no consensus on how it should be defined or used (Lutz 2014, Cho et al. 2013). Therefore, it is important to be specific about how it is to be used here. I take up a non-exhaustive interpretation of intersectionality, as a lens for examining how a range of axes of power and oppression – including, but not limited to – race, class, and gender, interact to produce contextually specific outcomes, through their sedimentation in structures and institutions as well as in the lived experiences of individuals (McKinzie and Richards 2019, Walby et al. 2012). It is not my intention to disregard the roots of the theory as a tool for analysing the experiences of Black women in the context of patriarchal, white-supremacist nation states. Yet I believe that a more expansive interpretation of intersectionality is

needed for studying waste as a multidimensional and transboundary issue. The phenomenon of waste necessitates consideration of myriad dynamics which cut across geographical locations, scales, and sets of power relations. I follow the example of decolonial feminist scholar Vergès (2021), who outlines the multidimensionality of commodities such as the banana, which brings to bear all of these dynamics and more in its production, distribution along complex global supply chains, consumption, and disposal – again through complex global supply chains (21-22). In addition, this thesis is explicitly concerned with how intersectionality is applied in the strategies and praxis of aspiring change makers working in the area of waste. This is one way of using intersectionality in research – it is not the only one (Cho et al. 2013).[8]

2.7. Summary

This chapter has established that novel and transformative approaches are needed for addressing waste as a major environmental and social challenge. Having outlined the flaws in mainstream approaches focused on recycling, circular economy, and consumer behaviour change under the rubric of continued economic growth, I have argued that GWIs hold the potential to offer meaningful alternatives – particularly in their ability to prioritise social and environmental needs over making a profit. Although they face numerous barriers in achieving their objectives while having to navigate capitalist structures, there is nonetheless a promising and growing body of literature which demonstrates the many forms of non-and-post capitalist value GWIs can have (Skarp 2021). I have identified the need for more attention to be given to how GWIs interact with multiple systems of power and oppression, in order to explore the full extent of their transformative potential. I have explored intersectionality as a critical theory and scholarly tradition which can be used to bring a new level of critical depth to the study of GWIs, and I have also argued that deeper integration of perspectives from discard studies – particularly on questions of power in systems of discarding, the materiality, agency, and scales of waste – can further help to explore the transformative potential of GWIs, to confront waste in a way which addresses multiple social injustices.

---

[8] Further discussion and justification of my interpretation of intersectionality adopted can be found in Chapter 3.

There is a pressing need for more research to investigate GWIs in the UK, and the extent to which they are organising in an intersectional way and contributing to the creation of new systems for discarding well in society. This leads to my research questions:

RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

RQ2: What does intersectional organising look like in grassroots waste innovations?

RQ3: How do intersectional grassroots waste innovations help shape new systems for discarding well?

 These questions will be addressed in Chapters 4-6, where I present the findings of the empirical research undertaken for this thesis. First however, the next chapter introduces the methodology I used to address these questions.

Chapter 3: A methodology for intersectional activist research

This chapter provides an overview of the methodological considerations and methods used in this thesis. I hope to illuminate some of the complexities of carrying out research which seeks not only to interpret the world, but to transform it (Conti 2005). The chapter begins with a reflexive statement on my own positionality, summarising the perspectives from which I have undertaken the research, and the political desires which inform my inquiry. I then outline how my research philosophy is informed by abolitionist, scholar-activist, and intersectional feminist theories.

I then explain in detail how I undertook the research. I present two separate phases of research undertaken for this thesis: first, I describe the methods used in a mapping study of the existing field of Grassroots Waste Innovations (GWIs) using qualitative interviews supplemented with document analysis. This phase of data collection addressed the first research question:

RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

Secondly, I describe two comparative case studies, which I undertook to address the second and third research questions:

RQ2: What does intersectional organising look like in grassroots waste innovations?

RQ3: How do intersectional grassroots waste innovations help shape new systems for discarding well?

I outline how I selected the cases (building on the results of the mapping study) and give a brief introduction to each one. I then discuss the fieldwork and data collection process, including semi-structured interviews, media analysis, observant participation (Seim 2024), researcher volunteering (Williams 2016) and action research (Autonomous Geographies Collective 2010). I reflect on how the differing context and structures of each of the case studies required me to take on different roles in each one. I then describe the processes of data analysis. Finally, I reflect on the ethical implications of my research, including the tensions and ethical challenges for conducting truly intersectional, politically effective, and socially just research. I conclude with some reflections on what this process reveals about

the possibilities and challenges for intersectional activist research, in relation to critical justice challenges such as waste.

3.1. Critical starting points

3.1.1. Positionality

> *My position is impossible, a colonialist-by-product of empire, with decolonising desires. I am, and maybe you are too, a produced colonialist. I am also a by-product of colonisation. As a colonialist scrap, I desire against the assemblages that made me. (paperson* 2017: xxiii).

Theorists of intersectionality have written about the importance of acknowledging one's own salient identity positions when undertaking research that seeks to engage with multiple interlocking systems of power and oppression (Atewologun and Mahalingam 2018, Maina-Okori et al. 2018, Malin and Ryder 2018). As Liboiron (2021: vii-viii) writes, personal introductions in anti-colonial research are a way of showing "where my knowledge comes from, to whom I am accountable, and how I was built." Reflecting on how one is "rooted" as a researcher, while also being attentive to how research participants are similarly or differently rooted, creates fertile ground for solidarity across differences, borders, and boundaries Yuval-Davis (2015: 641, Dengler and Seebacher 2019). In this spirit, I offer the following introduction of myself.

I was born and grew up in Belfast, Northern Ireland, three years before the Good Friday Agreement of 1998, which enacted a ceasefire between armed Irish Republican and British Unionist groups, and formally ended the period of conflict known as the Troubles. I am descended from Scottish settler-colonists who came to Ireland during the Plantation of Ulster in the 17th Century. They were participants in a British colonial project, which involved dispossessing the local Irish of their Lands and sovereignty. I identify as Irish, while recognising that settler-colonialism and the violence of the British state are part of my story. But so too is my opposition to colonialism and settler-colonialism, and my commitment to dismantling these structures and their legacies wherever they occur, in the interests of creating decolonial futures and restored Land relations, in which collective liberation can flourish.

My liberation desires are shaped by the subjectivity of living as a feminist, progressive, young person, in the context of 21st century Northern Ireland. The legacies of colonisation and conflict continue to poison relations between and within communities, and have severely damaged relations with the more-than-

human world (ní Dochartaigh 2021). Northern Ireland is a chronically underfunded and neglected corner of the United Kingdom. Progress in the areas of environmental protection, reproductive rights, women's rights, LGBTQ+ liberation, racial equality, and freedom from conservative Christian repression lags far behind the rest of the United Kingdom and the Republic of Ireland. These issues are bound up with widespread economic deprivation, and the paralysis which results from a sectarian political system, in which the binary conflict of Republicanism versus Unionism is enshrined in our governance structures and stymies progress in other areas. Severe biodiversity decline, and the heartbreaking systemic poisoning of vital ecosystems like Lough Neagh, are intertwined with Northern Ireland's polycrisis: the collapse of local government, ongoing sectarian violence, collective trauma, poverty, mental-ill health, and the decimation of the Irish language (ní Dochartaigh 2021, McClements 2023).

Against this backdrop, I have benefitted considerably from the privileges of being middle class, white, and cisgender. I have a British mother, and my dual heritage has given me a chameleon-like ability to "code switch" in different situations, which has undoubtedly benefited me in my professional life. These privileges have sheltered me from many of the vulnerabilities and injustices which play out across Northern Irish society. At the same time, I have been impacted by the collective trauma and interlocking oppressions afflicting Northern Ireland in the wake of the Troubles, especially in the form of the gendered violence I have experienced as a woman in this context.[9] These dynamics contributed to my decision to leave Northern Ireland in 2013, moving to Scotland and later England, where I currently live. Although I do not have a strong relationship with the Irish diaspora, my Irishness solidifies whenever I encounter what to me are symbols of violence, for example the ubiquitous Union Flag, and expressions of British patriotism during events such as the inescapable public ceremonies relating to the British royal family over the past few years. My emotional reaction to these events is out of step with that of the white English mainstream, but very much shared by the immigrants, people of colour, queer folks, and many white leftists with whom I am in community.

My personal experience of the complex and hybrid nature of identity, and the ways in which multiple axes of power and oppression interact in unruly ways in different contexts, has informed my interest in intersectionality. I am particularly fascinated by the *intracategorical* approach to intersectionality, which emphasises how social categories are constructed and how the boundaries shift in different contexts, as opposed to an *intercategorical* approach, which views social categories (e.g. class, race, gender) as relatively static (McCall 2005). This has shaped my decision not to be too predeterminate in my

---

[9] These dynamics are eloquently portrayed in Anna Burns's novel *Milkman* (2018).

approach to intersectional research in this thesis. I am interested in how different assemblages of power and oppression play out in specific contexts, as opposed to seeking out specific examples of "oppressed" identity groups to conduct research on (see Section 3.2).

3.1.2. Abolitionism and this thesis

I have offered the above personal introduction to illuminate where I start from in thinking about theories of intersectionality and liberation politics. I resonate with the work of decolonial scholar la paperson, a diasporic settler of colour in the USA, who describes themselves as "a colonialist scrap" (2017: xxiii): a constituent of, but also a castoff from, the assemblages of empire, settler colonialism, and extractive capitalism. paperson's text *A Third University is Possible* (2017) charts how the university is an assemblage of settler-colonial technologies. These technologies can be subverted and reoriented towards decolonial futures, even by those who have been produced in various ways by settler-colonialism and yet desire its abolition.

la paperson's theorising is particularly relevant to this thesis, which takes an abolitionist perspective on the multiple systemic harms determining current patterns of waste and wasting, while at the same time being situated firmly within the structures of the British university, which has been produced by, and helped to produce, historical imperialism and its continued legacies (Mahony 2024). Furthermore, the university is increasingly subservient to corporate interests, and an increasingly exploitative and precarious place to work, in which profit growth and global expansion are prioritised over academic integrity, the social good, and ecological sustainability (Autonomous Geographies Collective 2010, la paperson 2017). As Di Chiro (2020) writes, there is an imperative for those concerned with intersectional environmental justice to "engage in a politics of refusal and repair: a refusal to reproduce the settler, imperial, and carceral logics of mainstream environmentalism or the corporate university, and a commitment to repairing and healing damaged relationships and broken land" (322). Yet, following la paperson's reflections on undertaking abolitionist work from within the structures which should be abolished, I also recognise that my position within the neoliberal university gives me a point of access from which to investigate the technologies and mechanisms underpinning hegemonic systems of discarding, with a view to transforming them. Instead of seeking to neatly resolve these tensions, I instead aim to be reflexive and curious about how these tensions play out in my research.

3.2. Research approach

Having introduced myself and the perspectives and positionalities that inform my research, I will now discuss the research philosophies and approaches that have guided the design of this PhD. I will focus on scholar activism, feminist methodologies, and intersectional methodologies.

3.2.1. Scholar activism

A core methodological philosophy guiding this thesis is scholar activism. This is the idea that academic research is embedded in political struggle for progressive change, and that research seeks to understand the mechanisms and structures of domination *in order to transform them* (Autonomous Geographies Collective 2010, Conti 2005). Scholar activism collapses the traditionally assumed division between academia and activism, and recognises that researchers themselves share the justice struggles of the "resisting others" they study (Chatterton et al. 216, Dengler and Seebacher 2019). Scholar activism bears some similarities to the tradition of participatory action research (PAR), due to its focus on deep collaboration between the researcher(s) and the groups or organisations being researched, in service of progressive social agendas (Kemmis et al. 2013). However, scholar activism goes beyond PAR's focus on collaborative planning, production, and reflection in research. It emphasises the need for researchers to also contribute directly to a*ction* beyond the production of research (Chatterton et al. 2007).

Proponents of scholar activism push back against accusations that research is compromised by the researcher's stated desire to pursue political visions of progressive change. Research is always already political and normative: it legitimises and normalises certain worldviews over others through how problems are framed, which questions get asked, and the kinds of knowledge which are considered valid (Gardner et al. 2021). Scholar activists embrace the role of research in framing the realm of the possible in society, and "making some realities more real through our research than others" (Roelvink 2020: 457). Thus, scholar activist research begins from the position that the neoliberal capitalist economy is unjust, exploitative, and unsustainable, and that alternative ways of distributing resources and organising economic life should be pursued which are more just, and compatible with collective and planetary wellbeing (Roelvink 2020, Skarp 2021: 83).

The scholar activism approach has emerged strongly in critical geography, particularly in relation to studies of social movements and alternative economic / autonomous spaces. This reflexive body of work examines the role of the researcher as an active change-maker in these movements and spaces, and the possibilities and tensions this brings up (Chatteron et al. 2007, Autonomous Geographies Collective

2010, Taylor 2014, Mason 2013). This literature is highly relevant to my thesis. Whilst the grassroots groups featured in this study do not all use the term "activism" to describe themselves or their work, they all undertake collective organising to create spaces where waste is engaged with differently and better than in the mainstream waste management regime, with a view to achieving visions of sustainable and socially just futures. Such practices of alternative space-making fall within the parameters of activism, though they do not necessarily conform to perceptions of activism as dramatic and confrontational direct action (Taylor 2014: 306). As a researcher entering these spaces, my role is not only to study them, but also to contribute in whatever way possible to achieving their collective change-making goals.

I take seriously the imperative to "make strategic interventions collectively with the social movements [the scholar activist] belong[s] to" (Autonomous Geographies Collective 2010: 247). This is the most important principle of scholar activism, beyond the attainment of neat research outcomes (ibid). However, the extent to which I have been able to make these kinds of strategic interventions through my fieldwork is questionable, as I will discuss further in section 3.6. Furthermore, there are problematic implications of a researcher assuming that they as an individual have the capacity and prerogative to make these kinds of contributions to grassroots groups, which often have well-established agendas, organising principles, and processes (ibid). Indeed, one must take care as a researcher not to reinforce the macho exceptionalism associated with what Taylor (2014: 305) describes as "capital-A activism". Academics often perform activist research in a manner which ironically reinforces the idea of the University as the supreme producer of knowledge (ibid.: 307). In trying to counteract these tendencies, I have tried to maintain an ethic of humility throughout my research process, recognising that any value I can bring to the table as a scholar-activist is just one small strand in a myriad of important perspectives and a plurality of knowledges when it comes to achieving progressive change (Scagliotti et al. 2024). Nonetheless, throughout this process I have viewed my academic work as only being of value in so far as it helps me to make a positive contribution to strengthening the communities of which I am a part, and to fighting against the entrenched political power structures which are the root cause of today's state of polycrisis.

3.2.2. An intersectional feminist methodology

The research approach of this thesis is also heavily informed by feminist methodologies and intersectionality. While these can be viewed as two distinct methodological approaches, they have much in common and are frequently intertwined, with intersectionality often seen as a more inclusive and

radical expansion of feminism. Both feminist and intersectional research rejects the positivist approach to knowledge production, which Yuval-Davis (2015) describes as "'the god-trick' of seeing everything from nowhere as a cover and a legitimisation of a hegemonic masculinist 'positivistic' positioning" (638-639). Instead, intersectional feminist theorists are concerned with challenging supremacist theories of knowledge. They take a constructivist approach, analysing how dominant understandings of the world come to dominate, and the role of power and oppression in constructing these understandings (ibid.). Like scholar activism, feminist methodologies are defined by a clearly stated political agenda: "to understand inequality in order to get rid of it" (Kleinman 2011: 3). Feminist researchers shed light on how inequalities are constructed and then hidden by the powerful, and seek to make these oppressive processes visible so that they can be challenged (Kleinman 2011).

While feminist methodologies have traditionally been concerned with gender as a core axis of unequal power relations, Kleinman (2011) argues that the role of the feminist researcher is also to question how gender interacts with other systems such as class, race, or disability, and how these interactions result in differing power outcomes for individuals, and how this in turn impacts the way that gender is expressed. For instance, a working-class man who is out of work cannot access the same privileges of maleness that are afforded to men who are middle-class and securely employed. It is then the task of feminist research to examine how masculinity is expressed in these circumstances (ibid. 12-13). This speaks to intersectional theorising on how identity categories are not stable, but instead change at the point where they intersect with other categories, to produce contextually situated outcomes (Walby et al. 2012, Hutchinson 2001). So, intersectional feminist fieldwork aims to recognise and analyse how power and inequality operate, but also how multiple systems of power and oppression interact to produce unique outcomes in each case. I have endeavored to apply this approach in my fieldwork and data analysis, to provide a nuanced picture of the subtleties and complexities of how power shows up in the world as a result of multiple interacting systems.

However, my methodological approach in this thesis differs from some intersectional and feminist studies, in that I do not begin my research by focusing on the experiences of "social groups at marginalized social locations" (Atewologun and Mahalingam 2018: 152). Instead of intentionally seeking out specific social groups, for example Black migrant women or working-class LGBTQ+ individuals, and undertaking intersectional analysis of how individuals in these groups experience power and oppression, I have used intersectionality theory to analyse the structures and processes which cause unequal power

relations (Walby et al. 2012). I then analyse the organising strategies of groups seeking to challenge oppressive power relations in society through grassroots waste innovations. This places my thesis in the third trend of intersectional scholarship identified by Cho et al. (2013): "political interventions employing an intersectional lens" (785). Cho et al. make clear that intersectionality is concerned not only with analysing the experiences of oppression faced by multiply-marginalised groups, but also with analysing organisational strategies which "transcend single-axis horizons" (ibid.).

As I explore further in Section 3.5., my decision to proceed with the research in this way was informed by what I saw as an ethical imperative to avoid "damage-centered" research (Tuck and Yang 2014), and instead focus on strategies for transformation. My use of intersectionality methodology has more in common with environmental justice scholarship, which has used intersectionality as a means of tracing the historical and contextual power structures which produce injustice, and the modes of resistance taken up by grassroots coalitions (Di Chiro 2020, Malin and Ryder 2018). That said, I am of course attentive to how individual participants within my research navigate their own intersectional subject positions while going about this work. Indeed, the perspectives that interviewees and participants expressed during my fieldwork were often directly informed by their own experiences of navigating complex systems of oppression and privilege, and this informed the way they framed the work of the respective projects they were involved in (see Chapter 5).

3.3. Mapping intersectional grassroots waste innovations

Having introduced my positionality and political starting points as a researcher, and the methodological approaches which have shaped this thesis, I will now turn my attention to the practicalities of carrying out the research. There were two discreet phases of empirical research carried out for this thesis. The first was an interview-based mapping study, which established the "state of the art" of intersectional grassroots waste innovations. The second phase of empirical research consisted of two ethnographic case studies, each focusing on a different example of a grassroots waste innovation in which intersectional elements could be identified. In what follows, I will discuss the research design, sampling strategy, and data collection of the mapping study, before moving on to discuss the case study methods and data analysis in Section 3.4

3.3.1. Mapping study research design

The first phase of empirical research was a cross-sectional study (Clark et al. 2021: 50) which mapped GWIs in the UK and their engagement with intersectionality. I chose to conduct this phase of the research as an interview-based study, and carried out 19 interviews with practitioners involved in one or more grassroots-level waste projects, representatives from UK waste management and waste policy institutions, and academics with expertise in community waste. Qualitative interviews were chosen as a method over conducting a survey, due to the highly exploratory nature of this study and the need for in-depth conceptual discussions with relevant people, to reveal the scope and parameters of GWIs' engagement with intersectional ideas and strategies. The mapping study addressed the first research question of this thesis:

RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

As discussed in chapter 2, existing research on grassroots waste innovations in the UK has not explored the extent to which they are guided by an intersectional understanding of waste in relation to multiple overlapping social justice issues. Given the lack of an established field of "intersectional grassroots waste innovations", it was not immediately clear who would count as an "expert" in this area to interview. Although Skarp (2021) has established that there are roughly 3,500 community waste groups in the UK, and that most of them are concerned with having a positive social as well as environmental impact, there is no clear authority on the intersectional political dimensions of these community waste projects. Therefore, as a starting point, I adopted a three-fold sampling strategy to attempt to draw insights from a wide variety of interviewees with a range of relevant experiences and perspectives relevant to grassroots waste innovations: (i) sampling for diversity in interviewees' roles and relationships within / with GWIs, (ii) sampling across waste streams, and (iii) snowball sampling.

First, to gain insights on GWIs from multiple perspectives, I sought to interview people representing a wide range of roles and relationships within or with GWIs. This included: people with on-the-ground experience (practitioners and organisers with GWIs), people who support, connect and advocate for these on-the-ground groups (e.g. funding and intermediary organisations, academics), and business actors working in the waste and resources sector. In sampling across actors in these different roles, I intended to gain insights into the scope of intersectional organising in GWIs at the micro-level, as well as

an understanding of how GWIs relate to, and are perceived by, larger networks and institutions and the mainstream waste management regime.

Second, I sampled for diversity across waste streams. "Waste" is a broad and continually shifting category, encompassing a range of materials which differ significantly in their physical and symbolic properties, and in the processes used to "manage" them after they have been discarded (Skarp 2021: 26-43). I wanted to ensure that my study captured the full range of waste streams which GWIs in the UK are intervening in. I carried out desk-based research to ascertain the most relevant waste streams, and any prominent grassroots groups or networks of grassroots groups coordinating action for each of these waste streams. From this, I identified *textiles, food, plastics, wood, period products, tools and household goods (e.g. kitchenware and white goods), and e-waste* as the key waste streams to engage with. Some of these waste streams were associated with specific networks which supported action by multiple grassroots groups working on the same waste stream. For example, the Community Wood Recycling Network supports over 30 affiliate projects at the community level (Community Wood Recycling Network 2022). I also identified that there is a wide range of networks which support grassroots waste projects, but which are not specific to any single waste stream. Some of these networks take the form of not-for-profit intermediary organisations. For example, the Transition Towns network supports a range of communities undertaking environmental sustainability work, including waste innovations such as reuse hubs and repair services. Others take the form of corporate funding schemes, through which private sector actors support community level projects, like the SUEZ Communities Trust.

Having identified a range of relevant projects and intermediary networks across the waste streams, I began approaching potential interviewees. I initially drew on my pre-existing networks. I previously worked for a prominent national waste and circular economy organisation in Scotland, and this gave me useful contacts who kindly provided suggestions and introductions to prospective interviewees. I also used web searches to identify potential interviewees, whom I contacted using publicly available contact information. I also used open calls on social media to solicit interviews. My open call stated that I was looking for people "involved in a Zero Waste project", who were "passionate about the links between sustainable consumption and social justice."[10] A copy of the digital poster used to advertise the research can be seen in Appendix 1.

---

[10] My use of the term "Zero Waste" in my solicitation of interviews is at odds with the critical standpoint running throughout this thesis, that waste cannot be fully eliminated, and a completely "zero waste" system is neither

The third aspect of my sampling strategy was snowball sampling. Many of the interviewees suggested other relevant projects or intermediary networks. An overview of participants can be seen in Table 3.1. In three cases, targeted interviewees were unavailable for interview, and I therefore used relevant literature they or their organisations had produced in my analysis. These were: a report from a GWI working on e-waste, a post on LinkedIn by the CEO of a major network for community sustainability projects, and a blog written by the project manager of an initiative run by a period poverty organisation. A full list of these documents can be seen in Table 3.2.

Interview No.	Type of participant	Sector
1	Practitioner	Sustainable fashion
2	Practitioner	Food sharing
3	Network coordinator	Sustainable fashion
4	Practitioner	Upcycling, reuse, and food sharing
5	Practitioner	Sustainable period products
6	Practitioner	Reuse and repair
7	Practitioner	Swapping and lending
8	Practitioner	Reuse and repair
9	Practitioner	Reuse, upcycling, and recycling
10	Network coordinator	Food sharing
11	Network coordinator	Reuse, upcycling, and recycling
12	Practitioner	Repair
13	Academic expert / practitioner	UK University / reuse
14	Academic expert	UK University
15	Community sector expert	Reuse, repair, upcycling, swapping, and lending
16	Private sector expert	Industrial waste and resources management

possible nor desirable (Gregson and Crang 2010, Liboiron and Lepawsky 2022). In the earlier stages of the research process, the importance of this critical standpoint was not so clear to me. Moreover, given the trendiness of the "zero waste" concept, I felt at the time that this terminology would be more appealing to a non-academic audience, and would gain more traction on social media.

16	Private sector expert	Industrial waste and resources management	
17	Private sector expert	Industrial waste and resources management	
18	Community sector expert	Reuse, repair, upcycling, swapping, and lending, sustainable food, outdoor access	
19	Network coordinator	Sustainable period products	

Table 3.1. Interview participants, mapping study.

Document no.	Type of document	Title / topic	Author	Associated organsiation
1	Annual report	A model for a city-wide repair economy	Sophie Unwin	Remade Network
2	Blog post	A look at the DECOLONISE MENSTRUATION project	Diana More	Bloody Good Period
3	Linekedin post	"Funding for the third sector is broken"	Michael Cook	Circular Communities Scotland

Table 3.2. Public-facing documents used to supplement interviews.

3.3.2. Mapping study interviews

Ethical approval for the interview-based mapping study was granted by the University of East Anglia Research Ethics Committee. In the interviews, interviewees were asked to describe the activities undertaken and the various environmental, social, and political goals of the GWI(s) they were connected with. They were also asked to describe their own ideas for a more socially just and environmentally flourishing world, and to discuss what they saw as the role of GWIs in bringing about social and environmental justice. Barriers and challenges to achieving social and environmental justice through GWIs were also discussed. The full interview schedule can be seen in Appendix 2.

The interviews all lasted around one hour and were transcribed verbatim. Thematic analysis of interview data and documents was conducted using NVivo, focussing on i) the roles played by GWIs in addressing waste problems; ii) the presence of intersectionality in GWIs' framings and activities; and iii) the key challenges GWIs face in taking an intersectional approach. The findings from this phase of the research are presented and discussed in detail in Chapter 4 of this thesis. Information on how data were analysed, and ethical considerations, can be seen in Section 3.5. of this chapter.

3.4. Case studies

In the second phase of the research, I undertook two in-depth case studies of grassroots waste innovations in which elements of intersectionality could be identified. The case study research sought to answer the second and third research questions of this thesis:

RQ2: What can intersectional organising look like in grassroots waste innovations?

RQ3: How do (intersectional) grassroots waste innovations help develop new systems for discarding well?

As Flyvbjerg (2004) argues, cases have a vital and non-substitutable role to play in human learning. Deep contextual knowledge of cases helps the researcher achieve a nuanced understanding of human experience, and a level of specialist knowledge in a given phenomenon which cannot be obtained through rule-based and quantitative study alone (ibid). Ethnographic case study research was the only imaginable way that I could begin to address the second and third research questions of my thesis, which reply upon intimate knowledge of framings, processes, and possibilities within GWIs.

3.4.1 Case study selection

I chose to undertake two in-depth case studies, to allow for sufficient depth and a comparative approach which would help to build richer theory around how GWIs adopt an intersectional approach in their work (Clark et al. 2021: 63). Analysis from the mapping study led to two significant findings which informed case study selection. Firstly, GWIs not only take action to stop discarded items from going to waste, but also to reduce primary consumption. Secondly, GWIs take an intersectional approach in their work through *framings, project design, and coalition-building.* Chapter 4 outlines these findings and their significance in detail. Following this analysis, I wanted to select two case studies which would add further critical depth to these findings, to shape the development of new paradigms for understanding

intersectional and transformative approaches to discarding well in society. Therefore, I was guided by two key selection criteria:

(1) Which level of the Zero Waste Hierarchy[11] is the case concerned with?

(2) Does the case appear to display features of two or more of the three intersectional elements, *framings, project design, and coalition building?*

For criteria 1, I wanted to select one case study which focused on "reduce and reuse" or "preparation for reuse" (typical for GWIs), and one which focused on "refuse/rethink/redesign" (not typical for GWIs). This would allow for maximum variation across cases, to capture the diversity of interventions GWIs make to systems of discarding.

Whilst selecting cases based on criteria 1 was straightforward, selecting cases based on criteria 2, intersectional elements, was more complex. In my early analysis, before I had identified that "an intersectional approach" can be roughly identified using the three elements of framings, project design, and coalition building, I simply grouped these three elements together under the label "transformative" and surmised that different GWIs displayed elements of a transformative approach to differing extents. When considering case study selection, I first plotted a variety of GWIs on a matrix showing which level of the waste hierarchy they were concerned with (criteria 1), and the extent to which they displayed elements of a transformative/intersectional approach (criteria 2). Figure 3.1. shows this matrix, as it appeared in my digital research diary.

---

[11] For an explanation of the Zero Waste Hierarchy and how it differs from the more established Waste Hierachy, See Chapter 4.1.
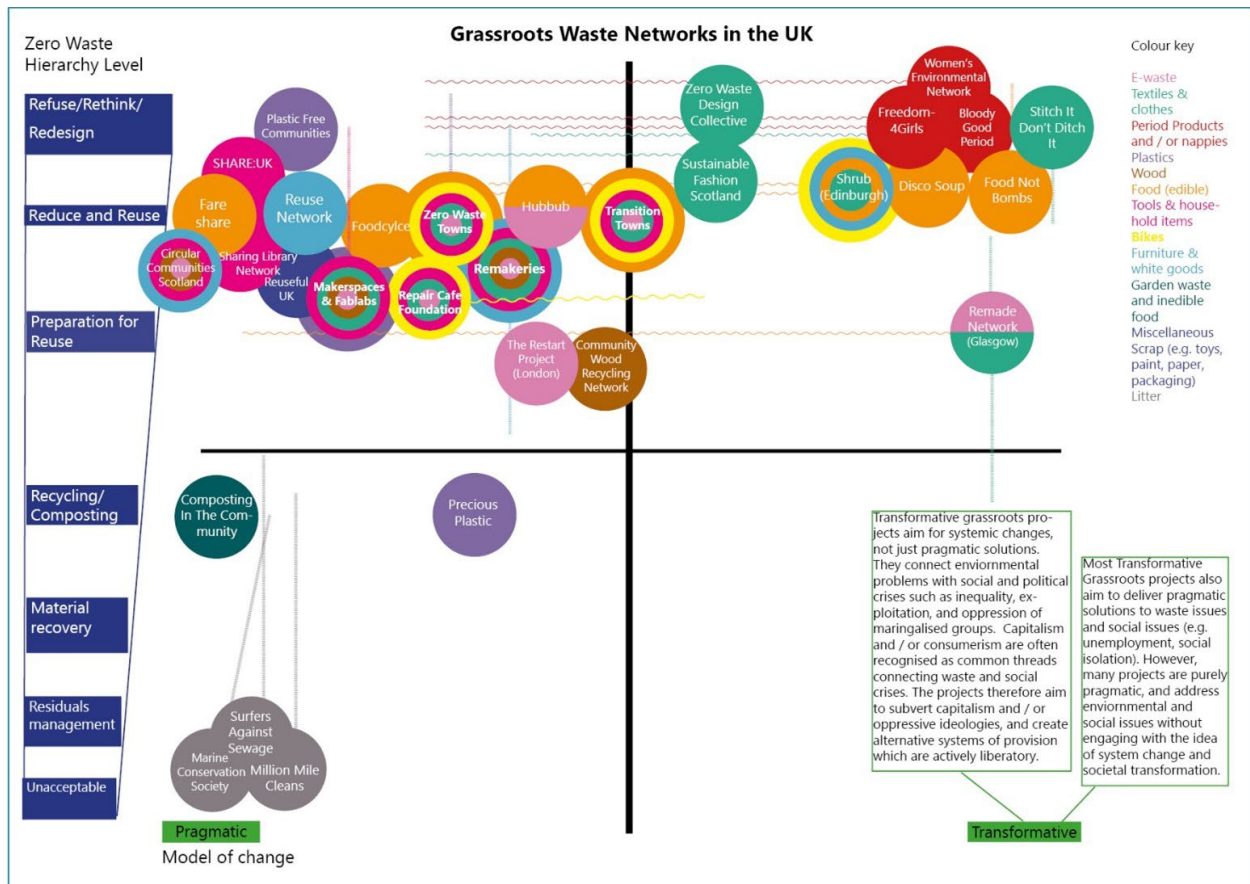
Figure 3.1. Matrix of GWIs in the UK. Extract from research diary. This matrix shows a broad range of GWIs, plotted against the levels of the Zero Waste Hierarchy and the extent to which they are pragmatic (not intersectional) or transformative (intersectional). This initially guided my selection of case studies. However, I later realised it was problematic in its suggestion that "intersectionality" is a spectrum based on a universal standard.

Analysing the data from the first phase of research in this way was helpful for visualising the field of grassroots waste innovations in the UK. However, through further qualitative analysis of the data and revisiting the intersectionality literature, it became clear that the matrix approach shown above was unsatisfactory for determining the extent to which a GWI could be considered intersectional or transformative (criteria 2). Intersectionality is not a spectrum or a sliding scale ranging from "not intersectional" to "intersectional". This would imply that there is a universal standard of intersectionality, which individual cases can be plotted against. Such an assumption is strongly at odds with intersectionality as a theory of how context, social relations, histories, subjectivities, and politics play out in unique and irreducible ways in each given case (McKinzie and Richards 2019). In short, intersectionality cannot be universalised, and intersectional cases cannot be measured against each other through superficial indicators such as the number of "intersections" they address (Mason 2019,

Walby et al. 2012, Hancock 2007). The intersectionality of a grassroots waste innovation cannot be plotted on a graph in the same way that its position on the waste hierarchy can.

Ultimately, my selection of the two case studies followed from having interviewed representatives of these projects in the first phase of the research and finding that there were many promising elements of intersectionality to explore in further detail. These were not the only cases which could have been selected, but they appealed strongly to my research interests, and I had the advantage of already having established contact with them in the first phase of the research, which made the fieldwork easier to arrange. I was fortunate in that both groups responded positively when I approached them to request to do the case studies, and I did not need to explore alternative options.

My case study selection strategy can be considered one of "maximum variation" (Flyvbjerg 2004: 230). I selected two cases which differed from each other significantly in multiple dimensions, summarised in Table 3.3. My goal was to explore diversity rather than seeking generalisable results, as generalisation is not possible or even desirable when it comes to intersectionality or "rich" case study narratives more generally (ibid. 237). Indeed, the idea of case study comparison has itself been critiqued as "an institutionalised method for producing modern knowledge through the ideal-type of Western rationality and deviations from it" (Hart 2016: 372, cited in Kumar and Aiken 2020: 207). I therefore selected two cases which would allow for a fruitful *exploration of relations between findings*, rather than direct comparisons between dimensions such as size, organisational structure, and funding model to determine the impact of these dimensions on outcomes (Flyvbjerg 2004: 230). This latter approach would have been too reductive for studying the complexity of intersectionality through an abolitionist frame which seeks to think beyond existing structures. Nonetheless, the contrasting dimensions outlined in Table 3.3. provide useful context to bear in mind when considering the case studies.

3.4.2. Introducing the two cases

The two case studies are introduced and discussed in detail in Chapter 5 of this thesis. So, in this chapter I will give only a very brief introduction to each one. The two cases were:

- *Case Study 1: **Govanhill Baths Community Trust (GBCT)***
- A community organisation based in the Southside of Glasgow, Scotland. The Trust offers a range of wellbeing, heritage, and sustainability projects for the local community. My case study research looked at two waste-focused projects run by GBCT. The first of these, Rags to Riches, is a reuse and upcycling social enterprise. Rags to Riches works across three waste streams:

textiles, wood, and plastics. Reuse workshops are provided to community groups and to the general public. Upcycled and recycled items are also sold to generate revenue for the initiative. A monthly second-hand market is also run by the Rags to Riches team. The second waste-focused project operated by GBCT is the People's Pantry. This is a community food hub which aims to alleviate food insecurity in the local area. Surplus food is donated by local food businesses and supplemented with fresh produce. Locals pay a small fee to become members of the pantry. This entitles them to a weekly shop in which they pay £2.50 to buy the equivalent of £12-£15 of groceries.

- *Case Study 2: **Bloody Good Period, University of East Anglia (BGP UEA)***
- A student group working to tackle period poverty (defined as the inability to afford conventional menstrual products) at the university. The group began collecting and disseminating free period products in 2019 and campaigned successfully to get the university to take over formal provision of free period products from 2023. The group also promotes the use of reusable period products, such as period cups and reusable pads, to reduce waste and the environmental impacts of conventional single-use products. They worked with the Students' Union to implement a scheme for giving away free reusable period cups to students who requested them. In addition, the group worked on multiple initiatives to improve education and reduce stigma around periods from 2020 – 2023. This included a podcast series, workshops and events, and collaborations with other student groups working on reproductive and sexual health. The group is loosely affiliated with the national charity Bloody Good Period, and undertakes fundraising activities on the university campus to support the charity.

The cases differ from each other considerably in terms of the types of waste they engage with, the level of their intervention into the Waste Hierarchy / Zero Waste Hierarchy, their location, organisational structure, funding models, and participants. These differences are summarised in Table 3.3.

Case dimension	Case study	
	Govanhill Baths Community Trust	*Bloody Good Period UEA*
Types of waste engaged with	Textiles, wood, plastics, food	Single-use period products

Menstrual blood as bodily discard |
| Position on the Zero Waste Hierarchy | Reduce and Reuse

Preparation for Reuse | Refuse/ Rethink / Redesign |
| Date founded | 2005 (following grassroots campaign launched in 2001). | 2019 |
| Location | The Govanhill and Shawlands area of Glasgow Southside, post codes G41 and G42. But most events and services are open to all members of the public. Staff and volunteers live throughout the city. | All work centres on the University of East Anglia Campus. |
| Organisational Structure | The Trust has a board of directors, a full-time paid director, and a team of paid managers responsible for each area of work.

Rags to Riches has a paid manager (part-time) who reports to the director of the Trust. There is also a paid events and sales officer (part-time), and part-time paid facilitators | The group is run by an elected committee of students. The core roles are President, Vice President, Treasurer, Equality and Diversity Officer, Health and Safety Officer. Each of these roles must be filled for the group to be recognised as an official student society by the Students' Union. Committee elections take place annually. Elected committee members |

	for each area of work (textiles, wood, plastics). Freelance artists and makers also do paid work for Rags to Riches. Volunteers assist with projects. The People's Pantry has a paid manager (full-time) who reports to the director of the Trust. A large team of volunteers assists with running the pantry.	are all volunteers. All other participants are also student volunteers.
Funding	Funding comes from a variety of foundations and funding bodies. As of 2022, these included The Foyle Foundation, The Barry Amiel and Norman Melburn Trust and the National Lottery Communities Fund. The Rags to Riches reuse hub also generates revenue under a social enterprise model, e.g. through paid-for workshops and selling upcycled goods.	Mostly unfunded and without a budget. The group worked with the Students' Union to get funding for specific projects, e.g. free period cup scheme.
Participant characteristics	Participants are residents of Glasgow, from multiple nationalities and racial backgrounds, though the majority of paid staff members are white Scottish or British, with some exceptions.	All participants are current students at the University of East Anglia. Participants are majority female, majority under 25, majority British with some exceptions, and from multiple racial backgrounds.

	Participants are majority female. Some have been involved with GBCT since its founding in the mid-2000s, others have only been involved for a few months or a couple of years. Age range is mixed, from recent university / college graduates to retirees.	

Table 3.3. Case study dimensions compared.

3.4.3. Ethnographic fieldwork

I utilised a mix of methods in the case studies: semi-structured interviews, observant participation (Seim 2021), researcher volunteering (Williams 2016), action research (Kemmis et al. 2014, Autonomous Geographies Collective 2010), and media analysis. Different combinations of methods were applied in each case, depending on the needs of the group under study. I kept detailed fieldnotes throughout the data collection period, and these were later coded and included in my analysis.

For the first case study, GBCT, data collection took place from October – December 2022. During this time, I spent four weeks on site at GBCT's premises in Glasgow. Most of the data collection was carried out in this period, but two interviews took place remotely in December 2022 over MS Teams and over the phone. For the second case study, BGP UEA, data collection took place over the period February – September 2023. The group was active at the university where I am also based, so fieldwork took place around my everyday life rather than during a dedicated period "in the field".

3.4.3.1 Case study interviews

Semi-structured interviews were carried out in both case studies. In the first case study, GBCT, eighteen people were interviewed. I approached staff and volunteers from all levels of the organisation, to gain a deeper understanding of the intricacies of this organisation's waste-focused projects, the local community context and history, and the ideas, motivations, and framings behind this work. I also interviewed members of organisations partnering with GBCT in their waste prevention work whenever

the opportunity arose to do so, as I had identified in the earlier phase of the research that coalition-building and relations across diverse communities are an integral part of intersectional organising (refer to the conceptual framework in Chapter 2, and Chapter 4). A list of GBCT interviewees is presented in Table 3.4.

Interviewee number	Role or relationship with GBCT
1	Senior staff member of GBCT
2	Coordinator of grassroots refugee women's network, partnering with GBCT
3	Staff member with Rags to Riches initiative
4	Volunteer with Rags to Riches initiative
5	Staff member for local housing association and reuse workshop participant
6a	Staff member for local housing association, housing association resident, and reuse workshop participant
6b	Housing association resident and reuse workshop participant
7	Staff member with Rags to Riches initiative
8	Staff member with Rags to Riches initiative
9	Staff member with Rags to Riches initiative
10	Staff member with Rags to Riches initiative
11	Current board member of GBCT, former volunteer with Rags to Riches initiative
12	Staff member, People's Pantry
13	Volunteer, People's Pantry
14	GBCT staff member
15	Staff member, Rags to Riches initiative
16	Freelance artist working with GBCT
17	Volunteer, People's Pantry

Table 3.4. Overview of GBCT case study interviewees

In the second case study, BGP UEA, twelve people were interviewed. I interviewed students in core organising roles with the group (at the time of fieldwork or in previous years), and students who had collaborated with the group and/or attended relevant events. At the time of data collection many of the committee members were inactive and did not respond to requests for interview, meaning that I had to expand the focus of the interviews to include students who were not actively organising within the group

per se, but had engaged with the group in various ways. I also interviewed relevant staff members at the university and Students' Union, who had been instrumental in helping to achieve the group's campaign goal of getting the university to take responsibility for disseminating free period products. Interviewees were selected to help me gain an in-depth picture of the various activities the group had undertaken over the years, the intricacies of carrying out this work, and the motivations, ideas, framings, and relationships relevant to the work. Interviewees are listed in Table 3.5.

Interviewee number	Role or relationship with BGP UEA
1	Former student organiser with BGP UEA
2	Current student organiser BGP UEA
3	Former student organiser with BGP UEA
4	Student collaborator / event attendee
5	University staff member: student welfare
6	Student collaborator / event attendee
7	Student collaborator / event attendee
8	Student collaborator / event attendee
9	Students' Union staff member
10	Students' Union staff member
11	University staff member: estates management / cleaning
12	University staff member: estates management / cleaning

Table 3.5. Overview of BGP UEA Interviewees

In both case studies, interviews lasted between 45 and 90 minutes. Interviews were semi-structured and flexible, allowing me to capture rich contextual data through pursuing the topics which were most interesting and relevant to each interviewee (Bryman 2008: 437-439). My phrasing of interview questions differed depending on whether interviewees were internal to the group (e.g. staff members, volunteers, organisers) or external to the group (e.g. members of partner organisations or institutions). However, my overarching questioning strategy was consistent across both types of interviewees in both cases. Questions can be grouped into three categories: (i) internal elements (e.g. the everyday work, processes, impacts, and challenges of the group), (ii) relationships (e.g. with other groups, the wider community, mainstream institutions), and (iii) system-level elements (e.g. how the interviewee frames sustainability and social justice problems and solutions, and their view on the role of grassroots innovations in relation to these challenges). This allowed me to compile detailed information on the four

key strands of the conceptual framework presented in Chapter 2: multidimensional analysis of harm, multidimensional approach to resistance, good relations, and challenging essentialism. It also allowed me to gain an overview not only of the outcomes of the groups, but also the internal processes and dynamics which shape this work, and the wider impact grassroots groups are able to have (Seyfang and Hexaltine 2012). An overview of the questioning strategy and example questions is shown in Appendix 3.

3.4.3.2 Media analysis

In the case study of BGP UEA, a challenge I faced was that the group was much less active during the period of my fieldwork than in previous years. Many of the students who had been instrumental in establishing the group and leading its projects had graduated from the university. I made several attempts to reach out to past members over email with requests for an interview, but I did not receive responses. As a result, the number of student organisers available for interview was limited. However, the group had produced a significant amount of media in previous years. For example, in 2021 the group made a podcast series in which members discussed key issues to do with menstrual equity. The podcast, *Strings Attached*, is publicly available on Spotify. To supplement interview data, I decided to transcribe and analyse the podcasts as part of my fieldwork. This provided a wealth of interesting insights. In particular, the podcasts shed light on how the student organisers framed the society's work in relation to broader political and cultural issues, allowing me to gain insight into the ways that the group displayed a multidimensional analysis of harm and a multidimensional approach to resistance in their work to tackle period poverty and associated injustices. In addition, I transcribed and analysed a recording of a talk given by the group in 2021 which had been uploaded to YouTube, and a recording of a radio show from 2021, which featured a member of the group as a guest. A list of media I analysed for the case study is shown in Table 3.6.

Type of media	Title	Media platform	Code
Podcast	Strings Attached: The History of Periods	Spotify	Podcast 1
Podcast	Strings Attached: Period myths and misconceptions	Spotify	Podcast 2

Podcast	Strings Attached: menopause	Spotify	Podcast 3
Podcast	Strings Attached: weird period adverts	Spotify	Podcast 4
Recording of public talk	Periods and the Environment	YouTube	Video 1
Radio show (available after broadcast as a podcast)	The Queer Sex Education show: guest eposide with Bloody Good Period	Soundcloud	Podcast 5

Table 3.6. Media analysed as part of data collection with BGP UEA

3.4.3.3. Observation, participation, and action: navigating diverse researcher roles

In addition to qualitative interviews and media analysis, in both case studies I undertook more active methods to immerse myself in the everyday realities of the groups I was researching. I initially intended to undertake "observant participation" with each group. This method is generally framed as a counterpoint to the more traditional method of participant observation (Seim 2024). Researchers actively involve themselves in everyday life in the field alongside members of the group being studied. This allows greater access to spaces and processes which are usually hidden from view, and leads to a deeper understanding of the activities, conversations, and embodied subjectivities of the social world (Seim 2024, Smith 2020, Smith 2017). Observant participation therefore felt like a promising method for getting close to the reality of the grassroots groups I was studying, and gaining an analytical depth which would not have been possible through interviews or dethatched "fly on the wall" observation alone (Seim 2024: 122). Observant participation can also take the form of researcher volunteering with community groups: a practice which allows the researcher to gain insight into what theoretical notions of justice and care look like "on the ground" (Williams 2016).

Taking on the roles of observant participant and researcher-volunteer was straightforward in the case of Govanhill Baths Community Trust. It is a well-established organisation with a fixed structure and a fixed programme of activities, workshops, and events. I was therefore able to slot into the work of the organisation relatively seamlessly. As an observant participant I attended reuse and upcycling workshops with Rags to Riches, and took part in the creative activities together with other workshop participants.

These creative activities allowed for a flow of informal communication between me and the other participants and the facilitators, and established a sense of ease in each other's presence which undoubtedly helped to facilitate rich data collection. I was also able to "give back" productively on a number of occasions by volunteering at events, volunteering in the People's Pantry, and helping with tasks such as making items to be sold in the Rags to Riches shop to support the work of the initiative. GBCT has had many years of experience managing volunteers carrying out these kinds of tasks, and supervising volunteers is part of the job remit of most staff members. Therefore, these volunteering activities were easy to arrange. A summary of the various activities I undertook during my fieldwork with GBCT can be seen in Table 3.7.

In contrast, I quickly realised in the case study of BGP UEA that seamless observant-participation and volunteering would not be possible. Whilst in previous years the student group was very active in running events and coordinating interventions like the "menstruation station" giving away free period products, at the time of my fieldwork, such activities had stalled. The core group of organisers who had been responsible for these activities had graduated and left the university, or had chosen to leave the group to focus on their final years of study. A new committee had been elected, but for numerous reasons they had not been very active in the academic year 2022-2023.[12] The most active member at the time of my fieldwork was the group's president, who was spread thin trying to organise events, coordinate fundraising, and maintain the group's social media and communications.

There was a critical need for extra pairs of hands to keep the group going at the time of my fieldwork. And so, inadvertently rather than by design, I took on an informal organising role with the group. My research with BGP UEA therefore came to more closely resemble the action research common in scholar activism, whereby the researcher actively organises with the group being researched, to help them set agendas and deliver progressive outcomes (Autonomous Geographies Collective 2010). During the fieldwork, I worked with the president of BGP UEA to design and deliver a session at a student-run event on Women's and Reproductive Health. I also arranged a collaboration with Norfolk County Council's waste team to give away free reusable period cups on campus. I was able to use my position as both a student at the university and a researcher with connections beyond the university to organise this

---

[12] In Chapter 6 I posit that a key reason for the group's inactivity in 2022-2023 was that it had achieved its core aim of persuading the university to take over responsibility for providing free period products across campus. This was the culmination of their efforts to tackle the social and environmental challenges associated with periods through a donation-based approach (Vora 2020), where access to modern, western period products is considered to be the key to addressing these challenges. For a full discussion of this, and the problematic implications of the donation-based approach, see Chapter 6.3.1.

collaboration. In this way I was able to make a small but useful contribution to the work of the group, because they had already approached a number of companies to request donations of reusable period products but had not been successful.

The fact that I took on different roles as a researcher in each case study reflects the importance of sensitivity and responsiveness to the needs and priorities of the group being studied. While it may be tempting to hold up action research as a gold standard for socially conscious research that aims to make a difference, imposing oneself too much as a researcher can also be negatively received by grassroots groups. As Chatterton, Hodkinson and Pickerill discovered in their attempts to perform action research with autonomous social centres in the UK, when researchers attempt to develop collaborative projects with activist groups, this can be perceived as arrogance by members of those groups (Autonomous Geographies Collective 2010). The disparity – real or perceived – between researchers' stable, well-paid jobs and the precarity and marginality facing many community organisers does not help (ibid., Gillan and Pickerill 2012). So, whilst it made sense to play an active role in co-designing the work of BGP UEA given the difficult circumstances facing the group and my own status as a "familiar outsider" (Kumar and Aiken 2020: 207) as a student at the same university, it would not have made sense in the case of GBCT. Had I tried to do this in the case of GBCT, a well-established organisation headed by very experienced community activists, I may have encountered pushback. I prefer to take up Taylor's (2014) approach to centering research around "being useful" for grassroots groups through practical everyday contributions, whatever those may look like in each context. This is more appropriate than assuming that the researcher always has a unique critical role to play in producing knowledge for grassroots groups or helping them achieve their aims. A summary of the different roles I took on in each case, and the different activities I undertook, can be seen in Table 3.7.

Case study	Govanhill Baths Community Trust	Bloody Good Period UEA
Researcher role	Observant participant, researcher-volunteer	Action researcher
Activities undertaken	Attended 5 reuse / upcyling workshops as a participant. Attended and participated in one day-long workshop with a group of volunteers from a local company doing a corporate volunteering day. Helped to set up the opening night of an exhibition, "Our Rights, Our Stories, Our Communities", under direction of one of the staff members. Attended the exhibition launch. Spent one day volunteering at 'This is Not a Boot Sale' second-hand market. Spent one afternoon helping to make furniture to sell in the Rags to Riches shop. Volunteered in the People's Pantry for two days (managing stock, stacking shelves, greeting members, processing payments	Helped to come up with an idea for a session at a student-run event on Women's and Reproductive Health and helped to run this session on behalf of the group. Suggested, then organised, a stall at the university giving away free period cups. Liaised with Norfolk County Council to provide the period cups, which resulted in running the stall collaboratively with a member of the Council's waste team to promote other ways of reducing waste in everyday life.

	at the till, cleaning up after hours).	

Table 3.7. The contrasting roles I occupied as a researcher in each case, and the participatory research activities I undertook during fieldwork in each case (not including qualitative interviews).

3.4.3.4 Fieldnotes and research diaries

Throughout the process of data collection, I kept fieldnotes. I wrote down my observations, experiences, impressions, and my own emotional responses and reflections on my role as a researcher. I also took photographs of events and activities, as visual cues to guide my analysis later. During periods in the field or after spending time with participants in each case study, I allocated time to write fieldnotes, usually at the end of each day. This process also allowed me to identify emerging research themes and things to follow up on in subsequent interviews and conversations. In addition to helping me keep track of the everyday happenings during the data collection process, my fieldnotes also functioned as a research diary, contributing to the multiple notebooks, word documents, and OneNote pages I kept throughout the PhD to work through my ideas, learnings, and emerging analysis.

When writing these fieldnotes, my conceptual grounding in intersectionality meant I was sensitised to make note of when and how different political issues came up in conversation, as well as the micro-dynamics of everyday interactions, and how these related to the broader structural dynamics of class, gender, race, national identity, etc. (Kleinman 2011). I also paid close attention to the materiality and physical presence of discards in my fieldwork, following my grounding in discard studies and my curiosity about the afterlives of discards (Liboiron 2016). For example, in GBCT discarded plastic, textiles, wood, and leftover food were visible everywhere in the various workspaces, and I spent a lot of time interacting with these discards as I helped staff and volunteers to sort, repurpose, distribute, or store these discards. This led me to reflect on the tactile and sensory experience of being in close proximity to discards, recording this in my fieldnotes. Whereas in the case of BGP UEA, discards were made conspicuous by their absence or invisibility – neither the participants, nor I myself, interacted with period waste (products and blood) at any stage (see Chapter 6). Revisiting my fieldnotes in the analysis stage, and reflecting on what appeared and what was absent in the fieldnotes, helped to inform my analysis of the two cases and their engagement with intersectionality and waste. A sample of my fieldnotes can be seen in Appendix 4.

3.5. Data analysis

All interviews and media recordings were transcribed verbatim. I re-read each transcript carefully along with my fieldnotes, and began my analysis using NVivo. Following Emerson et al. (2011), I have avoided a narrow preference for either inductive or deductive coding and have instead been mindful of how analysis is a continual process shaped simultaneously by the researcher's theoretical frameworks, normative stance, and positionality, and the emergence of new themes and ideas from the data.

I used open coding initially to parse the data. My codes were a combination of in vivo coding (themes brought up by interviewees and people I interacted with during the fieldwork), and codes based on my own research questions and conceptual framework. As I coded the data, I wrote analytic memos reflecting my interpretations, and linking these interpretations to my research questions and relevant theory (Kalpokaite and Radivojevic 2019). My analytic memos enabled me to identify emergent research themes. I was then able to relate these themes back to my conceptual framework concerning intersectionality and the multiple ways it shows up in GWIs, and transformative understandings of waste / systems of discarding / the power of working with and through discards. In turn, my thematic coding helped me to refine my conceptual framework. My analysis of the data led me to adapt and finalise my research questions. An example of an analytical memo I compiled during my data analysis can be seen in Figures 3.2 and 3.3.

Class, environmental quality

Reuse and People Power

- *"Govanhill Baths itself obviously grew from a campaign to save a community asset. That baths was so important to the community in all sorts of ways [...] It was a swimming pool, it was somewhere to wash your clothes back in the day, it was somewhere you could get a bath. So it was a community resource [...] it was a place where communities could come together [...] I think the Rags to Riches programme identified a kind of, I don't know whether it's something around the fact that you're trying to retain a building that has still got life in it, whether then it can be transferred to the, well, there's other things that we can reuse, we can retain, we can make better use of. [I don't know] whether that's where this environmental thread came through, and the sustainability thread came through, but I think that's really strong now in the baths, maybe that's part of what I connect with too, and definitely the people, the people aspect of it."*

    - *Interview with Board Member / former R2R volunteer, GBCT11*

- Analysis: Reuse isn't just about having a positive impact on the environment, it's something which embodies the spirit of the organisation and its radical roots. Grassroots mobilisation to preserve, maintain, or reclaim resources for the people, when these resources have been written off as worthless by the incumbent regime / local government / mainstream institutions.

- Did anyone else make similar points? Refer back to [interviewee's] comments in interview 1. Govanhill is a community which has been discarded. People have been made to feel devalued, and this is reflected in the lack of resources put into the community, lack of self-esteem from within the community, and the material impact of inadequate waste collection and pollution on the community. Reusing and reclaiming discarded materials represents an attempt to address pollution and positively transform the physical environment of Govanhill, and equally, it is part of a broader project of advocating for, and asserting the intrinsic value of, this systemically devalued community.

Figure 3.2. analytical memo made during analysis of data from Case Study 1.
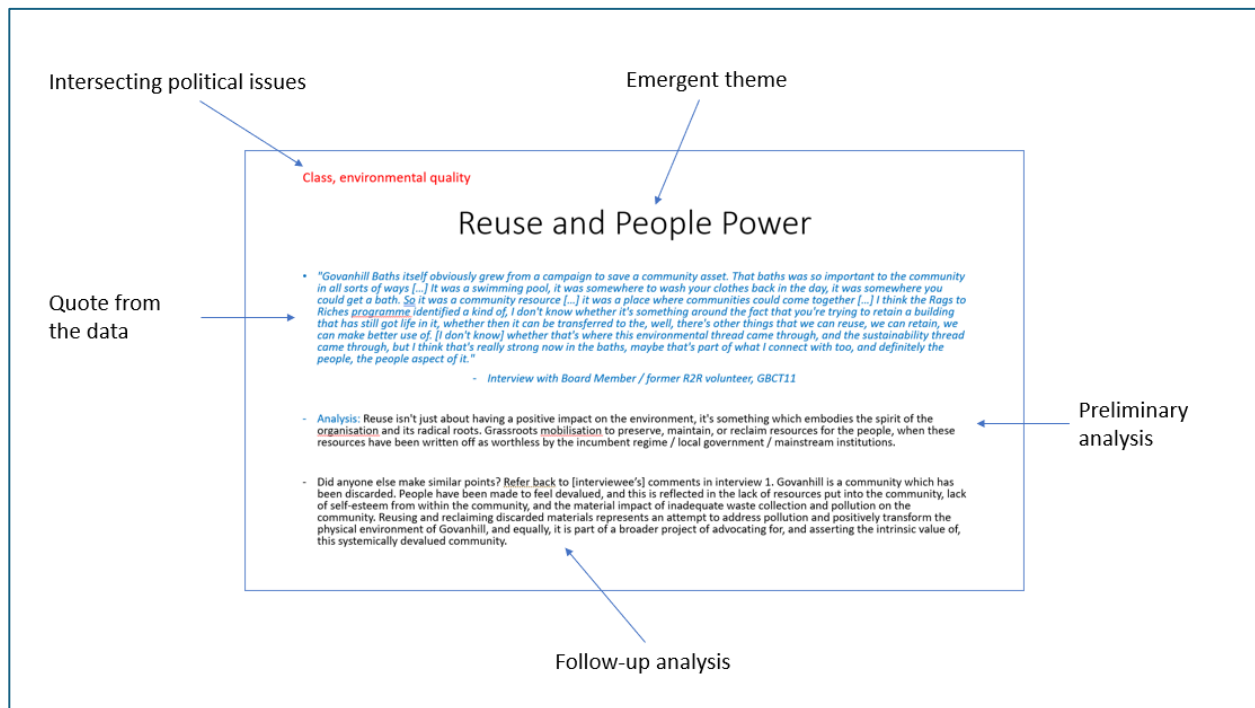
Figure 3.3. Analytical memo with labels showing how the memo informed my analysis.

As I was analysing the data, my preexisting interest in radical abolitionist politics and social justice across multiple axes of power and oppression was ever-present. This undoubtedly informed my approach to data analysis and the themes that registered to me as salient. In addition, I was sensitised to look for data on the processes and structures of GWIs, and how these processes contributed to or constrained the groups' commitment to intersectional progressive politics. Some examples of prominent themes which emerged from the data, and the codes associated with these themes, can be seen in Table 3.8.

Theme	Codes
Funding	Prescriptive funding
	Short term funding
	Benefits of precarious funding
Gender	Women
	Men
	Sisterhood
	Transgender identity
	Trans-inclusive language
	Deconstructing gender binary
Networks with other organisations	Community gardens
	Housing associations
	Pantry network
	Social movements
	Trade Unions
	Local charities
	National Charities
	Supportive relationship
	Distant relationship
Reuse	Keeping community resources in use
	Barriers to reuse
	Stigma against reuse
	Environmental case for reuse
	Upcycling

	Textile reuse
Waste	Fly tipping and litter
	Individualising the problem
	Throwaway culture
	Unavoidable waste
	Upstream and downstream solutions
	Waste management problems
	Wasting well

Table 3.8. Examples of themes which emerged in the data, and the multiple codes grouped under each theme.

3.6. Ethical considerations

Already in this chapter, I have outlined how my positionality, research philosophy, and political stance informed the research process. Transparency about these things is an important part of ethical social research. In the following section of this chapter, I will further expand on how ethical considerations have shaped my research methods. I first discuss the nuts and bolts of good ethical practice in social research, including informed consent and confidentiality. I then move on to a longer discussion of my decision to avoid "damage-centred research" (Tuck and Yang 2014), and finally how I navigated the ethical dynamics of reciprocity or "giving back" to communities in social research, and some of the ethical tensions which come up in my attempts to undertake scholar activism.

3.6.1. Consent and confidentiality

Ethical approval for all empirical research was granted by the University of East Anglia Science Faculty Research Ethics Committee. All interviewees were given an information sheet explaining the purposes of the research and how their data would be used, and were asked to sign a consent form after reading this and asking me any questions they had prior to taking part in the research. The information sheets for the mapping study and the case studies, and the consent form text, can be seen in Appendix 5. When signing the consent form, interviewees were given the opportunity to specify whether they wanted to be made anonymous. Almost all interviewees in both phases of the research stated that they were happy not to be anonymous. However, in the first phase of research, the mapping study, I made the decision to anonymise not only the names of all interviewees but also the names of the organisations they were associated with. Given that the mapping study was cross-sectional and aimed to give a high-level overview of the field of GWIs rather than discussing the ins-and-outs of how GWIs operate in

practice, it did not benefit the analysis to name the organisations, and nor did this phase of the research discuss specific enough details of each GWI or organisation to make anonymity difficult to achieve.

In the two case studies I took a different approach. Whilst I have still made efforts to anonymise individuals by not using their real names (names have been changed where relevant), and by not including overly descriptive details about them, I have named the two groups with whom I conducted my case studies. My reasons for doing so were twofold. First of all, each group is very unique in the UK, and so they would be easy to identify regardless of whether or not they were explicitly named. Secondly, the ways in which each group is unique to place, social context, and political underpinnings provides vital context for understanding them in relation to the research questions. For instance, GBCT is the only community organisation working on sustainability in the UK to have emerged out of a community mobilisation to save a public swimming pool from closure, through the direct action tactics of occupation, picketing, and public protest. This activist history has fundamentally shaped the priorities and activities of the organisation, including its reuse and waste prevention work (see Chapter 5). Secondly, situatedness is key to understanding the organisation through an intersectional lens (McKinzie and Richards 2019), and so it would not have been conducive to the research aims of the thesis to attempt to anonymise such details.

Similarly, BGP UEA is one of only two student groups in the UK carrying out activism around equitable and sustainable periods (as far as I could ascertain through desk-based research and as far as the group's participants were aware). The fact that the group was based at the University of East Anglia, where I am also enrolled for my PhD, was also a key factor in allowing me to access the group and perform action research with them. These contextual and methodological details are important to acknowledge.

Because the groups are named, and descriptions of their specific areas of work are given in this thesis, it was not possible for me to guarantee full anonymity to my participants. I do not believe this is overly problematic from an ethical point of view, because (1) almost all participants gave informed consent that they were happy to be identified, and in rare cases where this consent was not given, I took extra care not to share any descriptive details which could be used to identify an individual, and (2) because the nature of my research focused on participants' work and their perceptions of the work, rather than personal or sensitive details about participants themselves. This mitigated against the potential for "damage centred research" (Tuck 2009: 413), as will be discussed further below.

3.6.2. Avoiding damage-centred research

In a letter published in the Harvard Education Review in 2009, Eve Tuck critiques "damage-centered research—research that intends to document peoples' pain and brokenness to hold those in power accountable for their oppression" (409). According to Tuck's letter:

> This kind of research operates with a flawed theory of change: it is often used to leverage reparations or resources for marginalized communities yet simultaneously reinforces and reinscribes a one-dimensional notion of these people as depleted, ruined, and hopeless. (ibid).

Tuck's intervention, alongside similar critiques of mainstream Western research paradigms by Tuhiwai-Smith (2012), Tuck and Yang (2014) and Liboiron (2021), pose a challenge for critical waste research. Studies of communities' experiences with waste are classically damage-centred, emphasising the environmental injustice, harms to physical and mental health, and damage to relationships with place for communities exposed to pollution and unmanaged discards. Whilst it is important to uncover these stories of injustice, there is also a risk of erasing the agency of communities, and of reinforcing essentialist ideas about waste as abjection; a state which marginalised communities must be rescued from (Millar 2020, Murphy 2017). In my research, I have taken a different approach, moving away from stories of damage and looking instead at the creative and generative ways that communities live with and through waste and wasting.

Tuck's provocation to avoid damage-centred research also poses a dilemma for intersectional social research. Some interpretations of intersectional and /or intersectional feminist research rely upon intentionally seeking out individuals and communities at marginalised social locations, and exploring these experiences (e.g. Atewologun and Mahalingam 2018, Kleinman 2011). Whilst there are compelling reasons for undertaking intersectional research in this way, from the outset of working on this thesis I knew that this was not a route I wanted to go down. My awareness of my own positionality, the historical injustices I have benefitted from, and the relative social privileges I possess made me doubtful that I was an appropriate person to undertake this kind of research. Therefore, I did not approach my research by intentionally seeking out participants from marginalised identity groups, nor did I make my participants' personal experiences of various forms of inequality, oppression, and social disadvantage the explicit focus of my work. There are problematic ethical implications of a researcher capitalising on stories of marginalised people's hardship and suffering, while simultaneously ignoring other stories of subaltern flourishing which do not fit the damage-centred narratives that the Academy finds so enthralling (Tuck and Yang 2014, paperson 2017). As a way of countering damage-centred research,

Tuck and Yang (2014) encourage researchers and students to instead direct their attention to studying power structures, how they function, and the role of the powerful in perpetuating inequality.

Following this, I adopted a strategy of engaging with participants solely based on their work, or their interactions with the grassroots waste projects under study. Diverging from Atewologun and Mahalingam's (2018) guidance on intersectional methods, I did not ask my participants to disclose or describe their own intersectional identity positions, or to provide personal demographic data such as their ethnicity, gender, migrant status, or sexuality. Often, these details would emerge naturally as participants reflected on their participation in the projects, their motivations, and what the projects meant for them. I felt that in approaching the fieldwork in this way, and allowing participants to unspool their own stories on their own terms, I avoided some of the ethical pitfalls described above. I did not want to pressure participants to share aspects of their identities and histories which they may have wanted to keep out of bounds, as there are limits to what can and should be known by the neoliberal, colonising university (Tuck and Yang 2014, la paperson 2017).

However, my decision not to ask questions about how participants identified themselves in relation to factors such as class, race, gender, sexuality, migration status and disability meant that I had fewer opportunities to take McCall's (2005) intracategorical approach to exploring and deconstructing identity categories – though I have still attempted to do this based on what I gleaned from my interviews and observations in the field. I also realised late into my fieldwork that my decision not to collect demographic data also meant that participants did not have a clear opportunity to set the terms of our engagement, for example by declaring their pronouns. While I do not think this caused significant issues in my research, it does hypothetically have the potential to make participants feel uncomfortable or burdened, by putting the onus on them to make sure the researcher is made aware of such important information. Therefore, I do not want to present my approach to avoiding damage-centred research as completely unproblematic, or inherently superior to other methodologies which are more explicitly focused on participants' personal experiences of oppression. Rather, there are advantages and disadvantages to each approach, and I have done my best to be self-reflexive about these.

3.6.3. Giving back, and ethical tensions for scholar activism

Like many social researchers attempting to undertake politically engaged, emancipatory research, I grappled with contradictions, discomfort, and failures in my work. I struggled at times to reconcile my

personal agenda of completing a PhD thesis and launching my academic career with the ethical drive within scholar activism to do meaningful "real world" work (Autonomous Geographies Collective, 2010).

Whilst I approached my case studies with a sincere commitment to their social and environmental justice aims, and a desire to give back where I could, I cannot claim to be a "militant ethnographer". I did not prioritise designing research which would be useful for the groups I was working with, and the research aims and questions were not co-designed with these groups, nor did I collaborate with them in analysising the data (Sztandara 2021, Stephanides 2017, Juris 2007). Nonetheless, I was motivated by feminist ethical norms around reciprocity in social research. In feminist ethnography, giving back to communities is advocated as a way of redressing the power imbalance between ethnographer and research participants and avoiding extractive research (Shokooh Valle 2021, Sztandara 2021). This resonated strongly with the justice-oriented, abolitionist politics underpinning my research. It was another reason why I wanted to engage in researcher volunteering in the case of GBCT, and to use my professional connections and flexible schedule as a PhD researcher to assist BGP UEA in launching new initiatives.

The ways in which I was able to give back to my cases study groups were unfortunately time-limited. I was not able to stay consistently involved with the groups and contribute to their work in the long term, something which is considered preferable in scholar activism (Autonomous Geographies Collective 2010). My first case study, GBCT, is situated in Glasgow, too far away for me to become a regular volunteer or contributor. And in the second case study, BGP UEA had essentially ceased to exist by the academic year 2023-2024, with no new committee taking over from the previous year. However, I do not think that my lack of long-term contribution to either group poses substantial ethical problems. In the case of GBCT, the group already has an active volunteer base and many experienced activists propelling its work in the community. As Gillan and Pickerill (2012) point out, the critical knowledge production academics promise to social movements or grassroots groups is not always useful, or indeed saying anything new, to the people involved. And in the case of BGP UEA, the end of its run as a student society can be considered part of the natural rhythms of student organising. I did not feel it was my place to try to resuscitate it or extend its life course in the absence of a core base of committed undergraduates who would take the lead on this work. Throughout the research, I was conscious of wanting to strike a balance between meaningful reciprocity, and not overstepping my role as a "familiar outsider" (not insider) with each group (Kumar and Aiken 2020: 207).

In contrast to studies of activist groups in the militant ethnography tradition (Sztandara 2021, Juris 2007), I also believe that there were ethical benefits to *not* involving myself to a deeper extent with the groups I studied in this research. Throughout the course of this PhD, I have been actively involved in grassroots organising outside of my academic work, principally around climate justice and anti-colonialism. There has been a degree of symbiosis between the activism I undertake in my personal life, and the research I carried out for the thesis, with these two areas of practice informing each other in a positive and productive way. However, given that I have relied heavily on activist groups outside of my academic work for personal support during this time, and given the intensely close personal bonds developed through much of the grassroots organising I have been actively involved with, it could have been problematic to blur the boundaries too much. Gillan and Pickerell's concept of "general reciprocity" (2012: 138) therefore resonates with me. This extends the focus of scholar activism beyond notions of immediate reciprocity with research participants, and considers how researchers engaged with social movements can make positive ethical contributions to society more broadly. In my own case, the insights and experience I gained throughout the process of undertaking this PhD research will undoubtedly shape the kind of work I do in future, both within the academy (itself in dire need of transformation), and in the wider communities of which I am a part.

3.6.4. Accountability

Researchers should be accountable to the communities implicated in their research (Liboiron 2021). One way of doing this is through what Liboiron (2021: 138) terms "community peer review". This process should not be tokenistic or a case of merely presenting the findings to the community. Critical feedback from the community should be addressed by the researcher before the research can be disseminated, and the community has the right to refuse academic dissemination of the research altogether if they deem it to be detrimental to their interests (ibid. 142). This, and other examples of community refusal, can fundamentally subvert exploitative research paradigms (Tuck 2009).

I was initially drawn to the idea of undertaking community peer reviews with my two case studies, but in practice it did not turn out to be possible. I reached out to my first case study, GBCT, and expressed my interest in undertaking this process with them. However, the group turned this down due to their lack of capacity at the time. Instead, I agreed to produce a report based on my research findings which they could feature on their website (the report will be sent to the group in August 2024). GBCT's preference for not going down a more intensive community peer review route shows that as an accountability process, community peer review will not work for every community. Indeed, for some groups, it may

only exacerbate their workload. And as stated above, there was no longer a BGP UEA to conduct community peer review with by the time I had finished writing up my findings. My experience indicates that while processes such as community peer review may be best practice when seeking to do emancipatory research, these processes sometimes conflict with the everyday messy realities of grassroots groups.

3.7. Concluding remarks

This chapter has outlined the political orientations and desires that have informed my research, and the range of methods used in my study of intersectional grassroots waste innovations which aim to discard well instead of discarding harmfully. I have endeavoured to make clear that this thesis is not only concerned with documenting and analysing the world of grassroots waste innovations, but also contributing to the transformation of systems of discarding, through shining a light on innovative and radical grassroots practices. I have attempted to elucidate the many promises and challenges of undertaking politically engaged social research as a scholar activist, informed by feminist and intersectional methodologies and a desire to avoid the damage-centered research paradigms which reproduce harmful social relations. I recognise both the limitations of academic research for radical change work, and the simultaneous strategic possibilities of repurposing the tools of the neoliberal university towards progressive ends (paperson 2017). The methodologies discussed here are still relatively new in studies of waste and discarding – although there is an exciting and growing movement of interdisciplinary researchers addressing waste using explicitly feminist and anti-colonial methodologies (e.g. Liboiron 2021, Raman 2023). I hope that this PhD can make a small but useful contribution to this growing movement, paving the way for more transformative and liberation-focused research on waste and communities' interventions into waste.

In the following chapters, I present and discuss the findings from each stage of the research. Chapter 4 presents the results of the mapping study of intersectionality and GWIs in the UK, and Chapters 5 and 6 present the results of the case study research, with reference to intersectional theory, discard studies, and my conceptual framework for transformative approaches to waste.

Chapter 4: Exploring intersectional approaches to waste through grassroots innovations.

A version of this chapter has been published in Local Environment (Acheson et al. 2024).

This chapter provides an overview of existing grassroots waste innovations (GWIs) in the UK, and explores the extent to which they are engaged with intersectionality. It addresses the first research question of this thesis:

RQ1: What kinds of grassroots waste innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

The findings discussed here are drawn from nineteen interviews with people involved in GWIs, as well as representatives of organisations in the mainstream waste regime, and academic experts. Select documents were also analysed in cases where informants were not available for interview (see Chapter 3). I begin this chapter with an overview of the current scope of GWIs in the UK. Drawing on the work of Skarp (2021), I outline core differences between how grassroots and community-level waste initiatives function today, compared with in the early to mid-2000s, when previous studies in this area were carried out. Using insights from a desk-based mapping exercise, and interviews with 20 stakeholders representing different kinds of GWIs and the mainstream waste management regime, I give an overview of the types of waste dealt with by GWIs, and their position within the traditional Waste hierarchy and newer Zero Waste Hierarchy (Simon 2019).

The second part of this chapter deals with the extent to which GWIs are engaged with intersectionality, and with tackling waste as a relational and political issue intertwined with multiple systems of oppression and privilege. I begin by outlining the difference between "intersectionality" and "social impact", as most – if not all – GWIs aim to have a positive social or "soft" impact, in addition to reducing quantities of waste for environmental reasons (Skarp 2021: 147). However, this does not mean that they display an intersectional understanding of how social justice issues such as poverty, classism, racism, and gender inequality are intertwined with systems of discarding, and with the need to transform these systems in order to achieve both environmental *and* social justice goals.

I then discuss findings from the data which indicate that, whilst there are some compelling examples of GWIs taking an intersectional approach to waste, these are not the norm in the UK. I give an overview of four main ways in which GWIs are conceptualised by their participants and by representatives from the mainstream waste management regime. I then present three ways in which an intersectional approach shows up in GWIs: through *framings*, *project design*, and *coalition-building.* I discuss each of these features of an intersectional approach with examples from the data. Lastly, I discuss three factors which constrain GWIs when it comes to taking an intersectional and intersectional approach. These are: (1) concern over conflicting values between GWIs and wider publics, (2) funding challenges, and (3) the risk of tokenising people from marginalised groups in an attempt to increase diversity – in other words, superficial or performative intersectionality. The chapter concludes with a discussion of the significance of this study for expanding upon existing knowledge of community-driven waste interventions and innovations, and for developing a novel critical approach to grassroots innovations using insights from intersectionality.

4.1. Types of grassroots waste innovations in the UK

The scope and focus of community-level waste projects in the UK has changed in significant ways since earlier studies on the subject carried out by Sharp and Luckin (2006) and Luckin and Sharp (2005). Previously, grassroots groups and organisations played a significant role in the provision of recycling services and education on waste management. Grassroots action on waste has now shifted to focus on higher levels of the Waste Hierarchy, notably "reduce and reuse" and "preparation for reuse"[13] (Figure 4.1.). As Skarp (2021: 149) outlined in their revisiting of the community waste sector 15 years on from Sharp and Luckin's work, changes in EU, national, and regional policy, combined with increasing profitability of the recycling sector, have been the driving forces behind this change, as the public sector and private sector took over responsibility for recycling. Community groups are now primarily concerned with innovations and activities to facilitate reuse and repair, as well as new models for sharing everyday items (Skarp 2021: 150-151). Exceptions to this trend are the ongoing popularity of community composting, and grassroots litter-picking groups, which take action at the bottom of the waste hierarchy

---

[13] The Waste Hierarchy is a visual tool deigned to guide the EU Waste Framework Directive, originally formulated in 2008, which sets out the "basic concepts and definitions related to waste management, including definitions of waste, recycling and recovery." (European Commission 2024). It is the backbone of EU waste policy. See Figure 4.1. for a reproduction of the Waste Hierarchy diagram.

to remove discards from the open environment, and transfer these discards to managed waste disposal or recycling facilities (ibid.: 151).

Figure 4.1. The Waste Hierarchy, as used by the EU Waste Framework Directive (European Commission 2024). The top of the hierarchy represents the preferred option (prevention of waste), and the bottom of the hierarchy represents the least preferred option (disposal, which is here defined as waste sent to landfill).

My desk-based research into the scope of GWIs in the UK, as well as the interviews with key stakeholders working within or alongside grassroots-level waste projects, confirm Skarp's findings. The majority of grassroots waste innovations I identified can be situated within the Waste Hierarchy at the level of "Preparation for Reuse" (e.g. through repairing and refurbishing), and "Reduce and Reuse" (e.g. through sharing libraries and scrapstores). In addition, I have expanded on Skarp's 2021 study of the UK Community Waste Movement by including food waste in the analysis. Projects which redistribute edible surplus food – either by collecting it from businesses and supermarkets and donating it to other local organisations, or receiving surplus food donations and using it to cook free meals for the community (or both, as in the case of FoodCycle[14]) – are an active area of grassroots waste organising in the UK. These food redistribution projects can also be situated at the level of "reduce and reuse" within the Waste Hierarchy, because the redistributed food would otherwise have been discarded. In addition to food, the most common materials and waste streams being targeted by grassroots groups for reuse and

---

[14] See https://foodcycle.org.uk

preparation for reuse are: textiles and clothes, wood, e-waste, plastics, furniture and white goods, bicycles, tools and household items, and miscellaneous items including paint, paper, and children's toys (See Figure 4.3).

It is unsurprising that most GWIs in the UK focus on reuse and preparation for reuse, rather than recycling, materials recovery, and management of residual waste. These processes at the lower end of the Waste Hierarchy have been almost exclusively taken over by the mainstream waste management regime comprised of public and private sector bodies, which outcompeted the community sector operating in this space, and have greater capacity to manage these processes at an industrial scale, as well as regulatory imperatives and financial incentives for doing so (Skarp 2021: 149, Gregson and Forman 2021, Sharp and Luckin 2006). Whilst there are some exceptions -- for example Precious Plastic, the network of community groups, makers, and small enterprises which collect and recycle plastic waste using affordable and non-specialist machinery[15] – recycling and residual waste management are no longer the purview of the grassroots in the UK. This is a key difference between the UK and much of the Global South, where the informal sector is central to processes of resource recovery and the functioning of the recycling industry (Velis 2017, Labra Cataldo 2023).

However, I identified an additional significant role for GWIs in the UK, which has been covered less extensively in studies to date. This concerns the top-most level of the adapted Zero Waste Hierarchy, shown in Figure 4.2: "Refuse/Rethink/Redesign" (Simon 2019). According to Zero Waste Europe, this level of the Hierarchy is defined by:

> any activity related to stopping waste from being produced. Be it by creating a system that is waste free by design or by stopping the commercialisation of single-use items that can be easily replaced with alternatives. (Simon 2019).

I identified a number of grassroots collectives and initiatives in the UK which were taking action to "design out" waste from business models, or to challenge and disrupt the cultural norms which drive unnecessary consumption and disposal in the first place. These initiatives differ from lending and sharing initiatives, which are important actors in the new Community Waste Movement as identified by Skarp (2021: 182-195). Sharing and lending initiatives also prevent primary consumption, by giving members of the public access to items they can borrow and then return to be used by someone else, instead of buying these items privately and using them a limited number of times, thus compounding the

---

[15] See https://www.preciousplastic.com. One of the in-depth case studies discussed later in this thesis, Govanhill baths community Trust, did small-scale plastic recycling as part of its reuse hub rags to Riches, and used machinery and design information procured from the Precious Plastic network. See Chapter 5.

environmental footprint of the commodity lifecycle (ibid). However, lending libraries focus on changing the ownership model of commodities and encouraging *reuse* and the subsequent *reduction* of the quantity of new commodities purchased, rather than challenging the use of these commodities to begin with. I therefore argue that lending libraries are better positioned within the "Reduce and Reuse" level of the Zero Waste Hierarchy, rather than the top level, "Refuse/Rethink/Redesign".

Figure 4.2. The adapted Zero Waste Hierarchy, which emphasises the role of refusing consumption and rethinking / redesigning systems to prevent waste by reducing material throughput. Reproduced from Zero waste Europe (Simon 2019).

One example of an initiative which undoubtedly belongs at the "Refuse/Rethink/Redesign" level is Plastic Free Communities, a national programme coordinated by the NGO Surfers Against Sewage. Plastic Free Communities reports that over 900 community groups have signed a voluntary commitment to eliminate avoidable single-use plastics from businesses and institutions in their local area (Plastic Free Communities 2023). Other grassroots activist organisations, such as the Women's Environmental Network and Freedom4Grils, are championing initiatives to replace single-use period products and nappies – two types of consumer goods which are often overlooked due to the gendered taboos which

surround their use – with reusable alternatives (WEN 2023, Freedom4Girls 2023). These initiatives differ from traditional understandings of community waste projects, because they do not handle discards directly, nor are they explicitly concerned with challenging categorisations of what constitutes "waste" by showing that discarded items can be repurposed (Skarp 2021, Sharp and Luckin 2006, Dururu et al. 2015). Rather, they focus on changing the consumption practices which lead to the generation of discards.

As the Zero Waste Hierarchy demonstrates, and as argued by Villarrubia-Gómez et al (2022) and Farrelly et al. (2021), it is vital that global efforts to tackle waste shift away from an exclusive focus on managing discards, and towards systemic changes which limit the primary production and consumption of commodities and materials which later become waste. However, policy mechanisms to achieve this have been slow, and are frequently constrained by industry interests (WWF 2023). Grassroots innovations, in contrast to the mainstream waste management regime and growth-oriented policy frameworks at regional, national, and international levels, may have more freedom to critique and challenge consumerism – even if their ability to challenge *production* is limited (Liboiron 2014). Therefore, grassroots innovations which focus on disrupting, rethinking, and refusing consumption should be included in the tapestry of grassroots and community-level innovations which address waste in the UK. Doing so opens up new avenues of critical inquiry, when exploring the role of the grassroots in providing innovative and intersectional approaches to waste crises. Figure 4.3. below shows a representative sample of GWIs currently active in the UK, mapped against the Zero Waste Hierarchy. This illustrates the growing prevalence of GWIs working at the Refuse/Rethink/Redesign level.
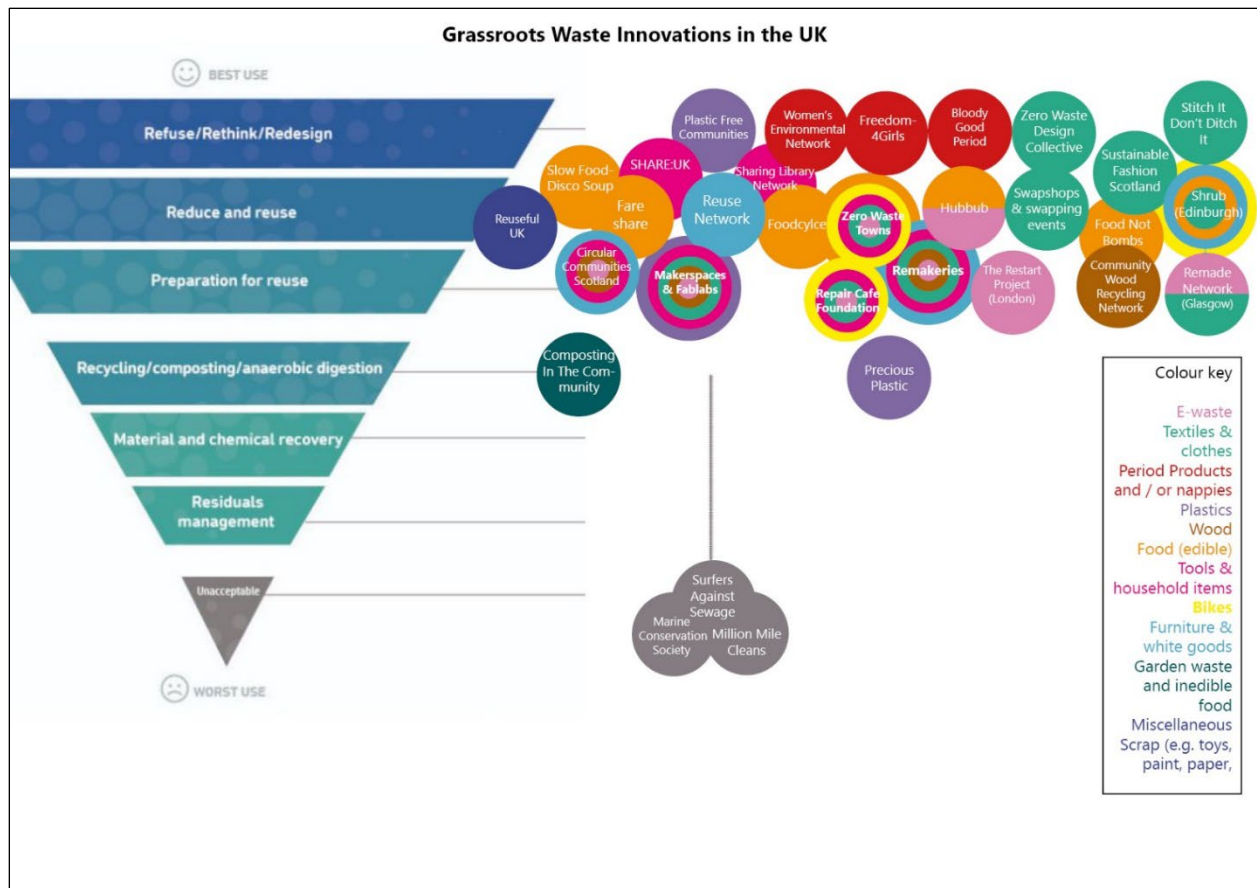
Figure 4.3. Prominent Grassroots Waste Innovations for each waste stream (e.g. food, e-waste, textiles, litter), mapped against the Zero Waste Hierarchy (adapted from Simon 2019).

4.2. GWIs, social impact, and intersectionality

Having given a brief overview of the current field of GWIs in the UK, I will now address the second part of RQ1: *to what extent are GWIs engaged with intersectionality?* Before I do so however, it is important to clearly distinguish between *social impact* and *intersectionality* when discussing GWIs. Most GWIs aim to have a positive social as well as environmental impact – for example alleviating poverty, tackling social isolation, fostering community cohesion, and creating reskilling and employment opportunities for disadvantaged groups (Skarp 2022: 126-128, Luckin and Sharp 2005, Dururu et al. 2015). However, GWIs which emphasise social impact are not automatically intersectional.

I take *social impact* to mean focusing on specific social problems in isolation. For example, Luckin and Sharp's 2005 study of community waste projects (CWPs) as possible vehicles for achieving sustainable development defined social and community benefits using indicators such as assisting individuals (e.g.

by providing affordable furniture), providing jobs and training opportunities, and attracting the highest possible number of participants, to indicate that a CWP was contributing positively to the community. These social and community benefits, while positive, are detached from system-level critique of why social vulnerabilities occur in the first place, or how a social objective such as providing affordable furniture relates to the systemic objective of ending poverty. Furthermore, Luckin and Sharp's study does not consider how hegemonic ideas about what is socially desirable – for example, the assumed need for "economic prosperity, safer neighbourhoods and more responsive government" (ibid.: 71) – impose a particular set of values and preferences. These values and preferences may be used to safeguard the futurity of the status quo[16] and the privileged groups benefitting from it, while potentially further marginalising those who are seen to threaten these hegemonic values (for example young, working class, people of colour, who are often assumed to represent a threat to "safer neighbourhoods").[17] Questions of *who* participates and *who* is excluded from CWPs are also not addressed in the study; nor does the study examine how the work of CWPs compliments, or conflicts with, other community priorities such as housing rights and racial justice.

In contrast, I take *intersectionality* to mean engaging with how social issues are understood to be inextricable from multiple oppressive systems which interact with each other. For example, a number of GWIs provide reskilling and employability training for ex-offenders, who struggle to re-enter the workforce. An intersectional perspective on this issue reveals how classism, austerity, structural racism, health inequalities, patriarchal gender roles, and the intertwining of profit with the criminal justice system all contribute to the social problem of lack of livelihood for ex-offenders (Davis 2003, Stoll 2009). However, GWIs which work on employability for ex-offenders are not necessarily doing so from this perspective. Taking an intersectional approach to the issue would mean looking beyond the underemployment of ex-offenders as a *symptom* of broken systems, and looking at the *systems* themselves, and attempting to intervene in these systems (Liboiron and Lepawsky 2022).

---

[16] The concept of safeguarding the futurity of a dominant group is borrowed from Tuck and Yang (2012), who critique mainstream decolonisation narratives as devices to secure settler futurity.

[17] A pertinent example of how young, working class, people of colour are viewed as a threat to safe neighbourhoods can be seen in Alice Russel's documentary *If the Streets Were on Fire* (2023). The film documents BikeStormz, a youth cycling project in London which was founded by community leaders to divert young people away from knife violence. The young cyclists and their adult mentors were consistently harassed by police while out on their bike rides, and were pushed out of core areas of the city due to accusations that their behaviour was "antisocial", and that they posed a danger to London residents and road users (categories which the young people themselves were excluded from, despite also being London residents and road users).

With this in mind, for this overview of grassroots waste innovations in the UK, an intersectional approach is distinct from a focus on social impact in the following ways:

1. The GWI is engaged in addressing how *multiple axes of oppression* are implicated in its environmental and social impact work, and
2. It recognises the need to transform the *systems* which cause social and environmental injustice, rather than focusing only on *symptoms* of injustice.

Drawing this distinction highlights the relevance of this study, and how it differs from previous studies of community waste projects, e.g. those by Skarp (2021), Dururu et al. (2015) and Lukin and Sharp (2005). By considering GWIs in the light of intersectionality, we can understand how they relate to wider political struggles across intersecting lines such as gender, race, class, ability, queer identities, and so on. This helps to illuminate the potential political relevance of GWIs and community sustainability projects more broadly, which have been described as depoliticised in the UK and other Global North contexts (Anantharaman et al. 2019). In the next section of this chapter, I discuss findings from the interviews and desk-based research, which give an indication of the extent to which GWIs are currently engaging with intersectionality.

4.3. Intersectional approaches exist, but they are not typical for grassroots waste prevention innovations

Interviewees outlined four distinct roles for GWIs in society: 1) as a route to changing patterns of consumer waste, 2) as a way of modelling alternative socioeconomic relations, 3) as counterproductive to achieving system change, and 4) as routes to intersectional social and environmental justice. I will address the first three of these here, before conducting more detailed analysis of GWIs as routes to intersectional social and environmental justice in the next section.

Firstly, perhaps unsurprisingly, mainstream institutions for addressing and managing waste view GWIs primarily as a route to altering patterns of consumer waste (or failing to do so). Viewed in this strictly instrumentalist light, grassroots and community level projects were not considered to be particularly effective, compared to mainstream actors such as government, or individual behaviour change. As one representative from a private sector recycling and waste management company put it:

> I think local initiatives are great and I would never want to stop them […] [but] how many of the reuse
> programs, and repair systems, of the, you know, these little villages that are created […] just don't work,
> because the whole village doesn't sign up. And lots of people take the car and go shopping somewhere
> else, and so the model, you know, unless you live in an enclave, you can never escape. Then they, I just
> think they're doomed to fail (Interviewee 16).

Another interviewee, representing a waste and resources industry network, viewed grassroots initiatives
in a more positive light, stating that community groups can "prove concepts", which can then be
adopted into the mainstream waste management regime – as was the case with kerbside recycling
(Interviewee 17, Sharp and Luckin 2006). In both examples, appreciation of the role of GWIs was limited
to the extent to which they have a measurable effect on reducing the amount of municipal solid waste
being produced under the existing conditions of a consumerist society. This reflects the standard
approach taken in mainstream perspectives on waste management, which are concerned with
measurable impacts and cost-benefit analysis (Sharp and Luckin 2006). The underlying economic
conditions of capitalism and consumerism were taken for granted and unquestioned, while social
impacts were seen as incidental. My interviews with actors working in the mainstream waste regime
therefore suggest that there is limited consideration of the intersectional potential of GWIs.

Secondly, several interviewees highlighted the importance of GWIs in prefiguring alternative
socioeconomic systems. These interviewees took a more critical approach to the underlying economic
conditions which lead to the generation of excessive waste. This perspective was expressed by
practitioners who were directly involved in one or more GWI, or academics, with a greater degree of
critical distance from mainstream waste regime perspectives (Interviewees 1, 7, 11, 12, and 13).
Interviewees recognised that while the material impact of such projects may be limited for now, they
are nonetheless important for building community resilience, practical skills and capacity, and creating
cultures of mutual aid, at a time of increasing instability. They viewed the inevitable fragmentation or
breakdown of capitalist provisioning systems as the backdrop to these grassroots projects. As a Repair
Café volunteer explained:

> now, in the early 2020s, we've got a situation where [capitalism] isn't meeting people's actual physical
> needs [...] but until we replace that shit, we're in a mess, aren't we […] So myself and various people […]
> have been trying to figure out how do we meet our needs in a post-capitalist reality. (Interviewee 12)

This post-capitalist perspective on GWIs chimes with the literature on GIs as radical community
mobilisations in times of economic crisis, institutional failure and political instability (Zapata Campos et

al. 2022, Loukakis 2018, Fressoli et al. 2014, Chatterton 2016). GWIs were seen as having the potential

to create alternative systems of provision which are more accessible and affordable, and which prioritise

the needs of low-income communities, and challenge exploitative, capitalist wage-labour relations

through non-hierarchical organising structures. Unlike the more institutionalised, instrumentalist

perspectives on GWIs, post-capitalist perspectives are rooted in an awareness of social injustice.

However, these perspectives tend to be limited to challenging economic injustice. Other forms of

injustice, such as gender inequality, or structural racism, received less attention among the

interviewees.

Thirdly, a contrary perspective, which was discussed by two interviewees, was the concern that the

existence of GWIs for tackling both environmental and social issues has the effect of absolving

government and corporations from taking responsibility for these issues. They expressed concern that

GWIs could actually be counterproductive to achieving system change for environmental and social

justice. This concern speaks to longstanding critiques of the instrumentalisation of "Big Society" by

David Cameron's coalition government following the 2008 financial crisis, which deferred responsibility

for social welfare and public services onto community volunteers rather than the state (Kisby 2010,

Evans 2011, Coote 2011). Reflecting and adding to arguments made by Hauxwell-Baldwin (2013) that

the attempted instrumentalisation of communities for delivering environmental policy goals has failed

to deliver, interviewees expressed concerns that GWIs could be unwittingly entrenching systemic social

and environmental injustice. This was especially pertinent for community food hubs and fridges, which

redistribute surplus food from supermarkets with the goal of alleviating food insecurity and reducing

food waste. These projects could be seen, at best, as a sticking plaster solution, and at worst, as a

stabilising force for an unequal and environmentally damaging status quo. In the case of community

fridges however, the picture is complex, as one interviewee explained:

> I don't think it falls to community, or Big Society, or anything like that, to solve problems that have been
> created by government, big businesses, etc. But I do think that communities have a brilliant role to play in
> understanding what local community needs are [...] they've got that that ability to connect on the ground
> in a way that like, we wouldn't be able to do without our network of community groups to support.
> (Interviewee.10)

An intersectional lens can be particularly useful in unlocking these nuances. Even though GWIs have a

troubling positionality in relation to structural problems like food insecurity and wasteful food supply

chains, they can still play a valuable role in tapping into community needs which are locally situated,

context-specific, and overlooked by hegemonic mainstream institutions. It should be kept in mind that this logic strays uncomfortably close to the Cameron government's strategy of "trusting people to know what needs doing" in the face of substantial government spending cuts (Coote 2011: 82). However, the kind of community organising which happens through GWIs can be decidedly more politicised than the Big Society conceptualisation of citizen philanthropy allows for (Kisby 2010). Moreover, the work of GWIs to engage with diverse sets of needs that are marginalised by mainstream structures does not preclude the development (or reinstatement) of a strong welfare state and environmental regulation. Rather, GWIs have the ability to offer something beyond what government intervention into systems of provision would likely offer: critique of, and mobilisation against, the multiple oppressive systems behind the status quo.

This brings us to the fourth perspective which emerged in the interviews: GWIs as routes to intersectional justice across multiple axes. Ideas around intersectionality were discussed by eight interviewees, though not all of them felt the GWIs they were involved in succeeded when it came to taking an intersectional approach, for reasons which will be discussed in Section 4.5. An intersectional approach can show up in a number of different ways, as I will explore in the next section.

4.4. Intersectionality through framings, project design, and coalition-building

I identify three key ways that GWIs are taking an intersectional approach to challenging multiple systems of oppression: through framings, project design, and coalition-building.

4.4.1. Framings

I borrow the concept of framings from Social Movement Theory, where it is used to refer to the ways that social movements or groups perceive societal problems, what they consider to be potential solutions, and beliefs about why a particular course of action is necessary, morally justified, and effective (Benford and Snow 2000, Della Porta and Diani 1999: 58-82). The importance of framing in grassroots innovations has been discussed by Spekkink, Rödl and Charter (2022), who argue that the development of collective narratives are central to the political agency of GIs and their ability to influence change in wider society, and should be considered an element of great significance, in addition to the technological innovations GIs develop. Intersectional framings used by GWIs can be considered

examples of a multidimensional analysis of harm – the first theme in the conceptual framework drawn from intersectionality theory and discard studies, as discussed in Chapter 2. In addition, GWI actors' ability to frame their work in an intersectional way also showed evidence of the second theme of the conceptual framework, a multidimensional approach to resistance.

In undertaking this research, it became clear that some GWIs adopt an explicitly intersectional framing of environmental and social justice issues. Although the word "intersectionality" itself is rarely used, some GWIs emphasise the need to address multiple axes of oppression in a systemic way, when confronting the problems of overconsumption and excess waste. For example, when discussing how a community reuse hub combines its reuse work with supporting refugee and homelessness charities, one interviewee stated:

> they're all social justice issues based around one party or one group claiming power over another group […] it all links together. It's all about how we manage power, and how we share resources, and who decides who does what and why they do it, and who has the power to do those things (Interviewee.9).

The work of reusing and redistributing goods and materials, in a way which includes and benefits underprivileged groups, was thus framed as important for challenging multiple structures of dominance and exclusion, in which power and material resources are concentrated in the hands of a dominant group over subjugated others. This recognition of the common dynamics of oppression, which lead to inequality on the basis of multiple axes of difference (such as race, citizenship status, and material dispossession), aligns with Ecological and Black Feminist writings on how a "logic of domination" characterises multiple systemic injustices, from colonialism and patriarchy, to white-supremacy and ecocide (Plumwood 1993, Warren 1990, hooks 2003). The notion that reuse and repair at the grassroots level might have a role to play in dismantling systems of domination is therefore promising from the perspective of intersectional justice.

Another example of GWIs using intersectional framings is the case of a sustainable fashion initiative which runs community repairing and swapping events. Its founder described their work in the following way:

> we're trying to create a vision of what fashion could be, if it was, you know, feminist, anti-capitalist, you know, anti-fascist, like you know, anti-racist, all these things. Because fashion has historically been, like, racist, ableist, like, fatphobic, like, all these things (Interviewee 1).

130

In this example, creating a space where people can come together to mend clothes, share skills, and bypass the mainstream fashion industry is considered to have implications beyond the environmental savings gained by diverting old clothes from landfill. By empowering people with the skills and confidence to make and mend garments, the initiative views itself as a counter to the oppressive and exclusionary beauty standards and the commodification of gendered bodies in mainstream fashion, as well as the specifically gendered and racialised exploitation of workers in fast fashion supply chains. In this way, this GWI is engaged with systemic critiques of misogyny, racism, ablism, and the subjugation of marginalised groups in a capitalist system.

However, intersectional framings are not always easy to translate into outcomes. The same interviewee from the sustainable fashion initiative acknowledged that although the project is motivated by intersectional feminist, anti-racist, anti-ableist and anti-exploitation politics, these politics were not necessarily reflected in the initiative's public-facing work:

> So there's all of those things we're not, like, overtly engaging with […] in our outward facing stuff, but that's obviously always in the background of my brain (Interviewee 1).

This speaks to a much-discussed issue for radical politics: the gap between how liberation theories are *evoked* to gain credibility and cultural capital, and the steps taken to *enact* liberation by the entities which capitalise on these theories (Ndhlovu 2022, Tuck and Yang 2012, Lutzenberger and Clark 1999). Intersectionality should necessitate praxis as well as consideration of theory, if it is to avoid being co-opted by mainstream neoliberalism and depoliticized (Mckinzie and Richards 2019, Cho et al. 2013). The gap between intersectional framings and intersectional practice is therefore a cause for concern, and suggests that moving from a multidimensional *analysis of harm* to a multidimensional approach to *resistance* is not straightforward.

However, intersectional framings can still be powerful in their own right. As social movement theorists have argued, framing processes are key to shaping actors' perceptions of political possibility, and have a dynamic relationship with the development of shared understandings of injustice, shared sets of values and practices, and a shared interest in bringing about change (Benford and Snow 2000, Taylor and Van Dyke 2004: 268-271). GWIs which take an interest in pursuing intersectional social and environmental justice should therefore not be judged solely on quantifiable outcomes, as these internal framing processes are also significant for longer-term political change.

4.4.2. Project design

There are ways in which intersectional framings *can* be translated into tangible outcomes and resistance strategies. This is evident in how GWIs design their projects and workflows. Following recognition of the fact that multiple environmental and social injustices are fundamentally intertwined (multidimensional analysis of harm), GWIs can choose to develop projects which contribute to addressing multiple injustices in a joined-up way. In doing so, they show evidence of a multidimensional approach to resistance (see Chapter 2). Analysing the steps taken by GWIs to do this adds to a growing trend in the intersectionality literature: addressing how organisations and social movements mobilise political interventions using an intersectional lens (Cho et al. 2013).

A compelling example is Bloody Good Period, a national organisation which aims to tackle period poverty by distributing free period products, and to challenge the misogynistic stigma and marginalisation of people who menstruate through advocacy and education initiatives (Bloody Good Period 2023). Although the organisation disseminates single-use tampons and pads as a key part of its approach to tackling menstrual inequity, it also promotes the use of reusable alternatives to single-use tampons and pads, to address the environmental impacts of waste period products. Alongside its focus on confronting patriarchy and environmental harm, the organisation also aims to challenge the colonialist and racist dimensions of period stigma and lack of access to adequate products and facilities for menstruators who experience intersecting marginalisations on the basis of gender, race, coloniality, economic status and refugee status (More 2021). Bloody Good Period's 'Decolonising Menstruation' project explored these issues through a series of creative workshops in collaboration with refugee and asylum seeker groups. The workshops explored the relationship between colonialism and menstruation, and developed visions of what a decolonial approach to menstruation could look like. Participants were gifted a welcome pack which included a range of reusable period products (More 2021). The Decolonising Menstruation project is a significant example of intersectional project design, because it recognises that although all people who menstruate have common cause when it comes to tackling patriarchal stigma and period poverty, there are also specific and incommensurable justice issues such as racism and colonialism, which require attention in their own right. As Bohrer (2019) argues, this respect for incommensurability, while simultaneously working towards overarching political goals, is key to effective intersectional organising.

There are reasons to believe that Bloody Good Period, and initiatives like it which focus on menstruation and reducing waste from single-use period products, lend themselves more easily to an intersectional

approach than many of the more traditional community waste projects focusing on other common waste streams such as wood, textiles, or food. This is because menstruation, as an embodied experience which is stigmatised across Global North cultures, is widely acknowledged to be inseparable from systems of domination including patriarchy, white supremacy, colonialism, and Western Exceptionalism. These intersecting systems of oppression cause people who menstruate to experience multiple disadvantages and prejudices in society, as scholars in the emerging field of Critical Menstruation Studies have discussed (Røstvik 2022, Winkler 2020, Bobel 2010). This was one of the primary reasons why the second case study in this thesis, Bloody Good Period UEA, was selected, because desk-based research made it clear that the group (a student society which took inspiration from the national organization discussed above, but was not officially affiliated), framed their work in an explicitly feminist way, and seemed to engage in projects and activities which were directly concerned with gender equality, LGBTQ+ liberation, and racial justice. This will be discussed in more detail in the next chapter.

Another GWI I identified from desk-based research which has sought to align intersectional framings with intersectional project design is the Remade Network in Glasgow, which works on repairing and redistributing e-waste. Their report, 'A Model for a City-Wide Circular Economy', declares:

> We know that it is those who have contributed least to climate change that are most disproportionately affected by it. We want to reverse this by centring the voices, experiences and skills of the communities we serve in our work. And, as a female-led organisation, we seek to highlight women's perspectives and experiences on tackling climate change, supporting calls for a feminist green new deal (Unwin 2021: 11).

The organisation attempts to act on this feminist, climate justice framing through its 'Desktop Distribution project', which ran during the Covid-19 lockdown in 2021. Through establishing networks with other organisations and interest groups supporting local residents with diverse needs, the Remade Network provided desktop computers to women experiencing digital exclusion and social isolation on the basis of multiple systems of marginalisation, including racism and language barriers (Unwin 2021).

It is worth pointing out that feminism and intersectionality are not interchangeable. There is a debate among intersectionality theorists over whether it is accurate to use the term intersectionality when gender is treated as the core axis of oppression, to which other forms of discrimination are added (Mason 2019). As Mason (2019) argues, this diverges from Crenshaw's original conceptualisation of the term, which emphasises how gender, race and class as oppressive categories are fundamentally intertwined and must therefore be addressed together. This more nuanced understanding of

intersectionality is arguably less present in the example of the Desktop Distribution project. However, this does not mean that a project like the one described here is not relevant when it comes to an intersectional justice agenda. The Desktop Distribution project is a useful example of how waste-saving practices such as reuse and repair can achieve more than simply diverting waste from landfill, or even creating alternative infrastructures of provision which by-pass the capitalist linear economy. As the example shows, grassroots practices of reuse, repair, and the redistribution of discards can also be a conduit for subverting systemic marginalisation, and can be mobilised to support a vision of transformative system change. A pragmatic interpretation of intersectionality can therefore be used to capture the significance and radical potential of everyday waste prevention work at the grassroots level, which can be considered an expression of multidimensional resistance against poverty, patriarchy, ageism, and other systems which exclude and marginalise.

4.4.3. Coalition building

Another highly significant way that GWIs can take an intersectional approach to the environmental and social injustices of the waste crisis is through coalition building. This is a major component of "good relations", discussed in chapter 2 as central to a conceptual framework for intersectional systems of discarding. Bohrer (2019: 249-257) argues that a key challenge for intersectionality is to mobilise against multiple interlinked injustices without collapsing differences and erasing incommensurable experiences. Bohrer draws on the work of Audre Lorde to discuss the concept of solidarity in "the house of difference". (ibid., Lorde 1982). As Lorde's writings have illustrated, feelings of alienation and the reproduction of harm often occur, when hierarchies are created in community spaces whereby some axes of oppression are given more consideration than others (2017, 1982). Bohrer argues for the necessity of coalition building between diverse groups and causes, and of attending to the specifics of multiple subjectivities, instead of trying to collapse and assimilate distinct issues and identities into one totalising political programme (Bohrer 2019: 249-257). And as Angela Davis writes, "movement intersectionality" can be achieved when political identity groups recognise how their own struggles are implicated in the struggles of other identity groups, and coalitions are mobilised which honour diversity and difference (Davis 2016).

Coalition-building is more often discussed in relation to political activism and civil rights issues such as racial justice, LGBTQ+ liberation, and class struggle, than in relation to community sustainability initiatives. Indeed, evidence of proactive coalition-building in GWIs was scarce in both the literature reviewed for this thesis and the data collected for this chapter. However, a couple of examples were

identified which proved to be so compelling that they make a strong case for the inclusion of coalition-building as a key facet of intersectional GWIs. To return to the examples discussed in the previous section, Bloody Good Period developed the "Decolonising Menstruation" project through active collaboration with Decolonising Contraception[18], a grassroots organisation which works to understand the impact of colonialism on People of Colour's experiences of contraception and reproductive health. The organisation was created and is fronted by people directly affected by this issue. Decolonising Contraception therefore had expertise and lived experience which could benefit Bloody Good Period as a more mainstream organisation seeking to engage with similar issues of how coloniality, racism, and gender intersect in experiences of menstruation as a bodily experience and political issue (Reproductive Justice Initiative 2024, More and Stedeford 2021). Bloody Good Period also worked with three centres for refugee and asylum seekers to run the workshops on Decolonising Menstruation (More and Stedeford 2021). As Liboiron and Cotter (2023) have argued, the participation of groups affected by colonialism in addressing environmental and social challenges needs to be about enabling Indigenous and colonised peoples to define the nature of these problems. Participation must take seriously the need for sovereignty and anti-colonial justice, rather than merely seeking to "include" Indigenous voices in preexisting mainstream frameworks. Whilst it was not possible in this study to verify or further investigate the extent to which Bloody Good Period followed Liboiron and Cotton's guidance on collaborating with people affected by systems of colonialism in the Decolonising Menstruation project, the open-ended, co-produced, and non-prescriptive approach to the collaboration, as described by More and Stedeford (2021), is promising as a potential example of non-hierarchical and transformative coalition-building, rather than simple inclusion of a marginalised group in the organisation's already existing work.

Another particularly compelling example of effective coalition-building to confront issues of waste was Govanhill Baths Community Trust (GBCT), which was selected as one of the case studies for this thesis after an initial interview with one of the key organisers (Interviewee 4). The interviewee framed waste challenges in the local area as arising from multiple intersecting systems of oppression affecting local residents, and described how the organisation designed projects in an intentionally intersectional way to confront multiple systemic injustices. Coalition-building with other grassroots groups enabled GBCT to

---

[18] Decolonising Contraception has now been renamed as Reproductive Health Initiative. See:
https://reprojusticeinitiative.org/work/#DecolonisingContraception (accessed 11/12/2023).

effectively support multiple communities facing distinct but overlapping struggles. A full discussion of their approach to coalition building will be provided in Chapter 5.

The other GWIs I engaged with in this study had not taken such substantial steps towards working in coalition with a variety of groups on social justice issues that intersect with their waste prevention work. However, this was not necessarily due to a lack of interest in doing so, but rather, it was the result of a number of constraining factors. These and other constraints are discussed in detail in the following section.

4.5. Barriers to taking an intersectional approach

Interviewees identified four main barriers to organising in an intersectional way: 1) Concern over conflicting values; 2) a lack of capacity, 3) unhelpful funding structures, and 4) attempts to increase social diversity resulting in the tokenisation of people from marginalised groups. It is important to understand how and why these barriers occur, as this pertains to the gap between GWIs' ability to use intersectional framings – or a multidimensional analysis of harm – and their ability to approach resistance in an intersectional way through how they design their projects, and their ability to foster good relations by building strong solidarity networks (see chapter 2). Some of the challenges discussed below – particularly lack of capacity and challenges with funding – reflect long established tensions for grassroots innovations and community organising, which have been documented at length in the existing literature. However, the literature to date has framed these as challenges specifically for the up-scaling and / or replication of grassroots innovations, and their impact upon, or role in enacting, top-down policy agendas (Hossain 2018, Martin and Upman 2016, Martin et al. 2015, Smith et al. 2015, Walker 2011). My findings differ from the literature in that I am not addressing the extent to which the GWIs in this study are constrained in their ability to upscale, replicate, or interact with mainstream policy agendas. This perspective has already been covered extensively. Rather, issues around navigating conflicting values, lack of capacity, and funding pose specific challenges for the *intersectionality* of GWIs. Therefore, these findings merit discussion here.

4.5.1. Concern over conflicting values.

Firstly, interviewees expressed concern that attempts to organise around multiple interconnected political and environmental issues would conflict with the values and preferences of potential

participants. Some expressed a personal commitment to anti-oppression politics, but felt they needed to tone down this commitment in order to avoid alienating people. It was noted by several interviewees that GWIs tend to be female-dominated and have feminist leanings. This was seen as problematic by a representative from a sustainable fashion network, in terms of broadening the appeal and widening the impact of the projects:

> When we talk about female empowerment and feminism, that can be alienating for men as well. It shouldn't be, but it can be. So we need to also remember to make it a bit more accessible to men as well, just so that they join in these kind of movements. Not too much, they should still be okay with feminism, but you know. (Interviewee 3).

The conflict between being radical and having a broad appeal is a common one experienced by GIs (Smith 2007, Seyfang and Longhurst 2016). The data presented here shows that tensions can arise not only regarding the extent to which GWIs should be challenging capitalism, but also the extent to which they should address intersecting issues, such as gender equality. Furthermore, some interviewees suggested that GWIs aiming to attract a diverse base of participants need to be less overtly political, because of concerns that political ideologies such as anti-capitalism and feminism do not feel relevant to people's everyday struggles. Interviewees expressed concern that an overtly anti-system framing and praxis could be alienating to people who were not already sympathetic to these ideas. This reveals an interesting tension. Capitalism and intersecting systems of oppression were widely recognised as the root causes of everyday struggles such as poverty and social exclusion. And yet, as Faye (2021) has observed in relation to the backlash against transgender rights, the expression of radical, intersectional political ideas – especially ideas which challenge patriarchal gender roles and norms – is often associated with elitism and privilege, regardless of the statistical reality that people from marginalised gender groups are disproportionately likely to experience economic hardship. In this study, we see how anxieties over being perceived as elitist influence people involved in GWIs, and constrain their appetite for designing projects in an intersectional way.

One interviewee, who had been directly involved in a number of grassroots environmental projects in the central belt of Scotland, in addition to working professionally for organisations which support such projects, added an additional perspective to these concerns. The interviewee implied that there was a divide between the interests and priorities of the white, middle-class people who gravitate towards grassroots environmental projects, and working-class people of colour, who are more concerned with issues of poverty and health, and thus might feel alienated by projects which went too far in straddling

environmental and social justice goals (irrespective of how these issues intersect). The interviewee explained:

> there's a lot of, I'd say like young, kind of hipster families who are definitely like environmentally conscious and want to buy, like, ethical goods and you know, the more [sustainable businesses] that move here, they definitely have like a big consumer base because there's people with enough money and with the right kind of attitudes […] there's definitely a lot [of community organising] that's targeted at um, yeah, the South Asian community, or refugees or migrants. But you know, I don't know where that crosses over with the sort of more environmental grassroots stuff […] I think if [you're], you know, working to support your family and, and you know, it's hard […] if that is your primary stress, like having enough money, your mental health, I'm not sure that you then make the next leap to, like, caring a lot about the environment […] climate change just isn't a priority for some people, and that's totally understandable. (interviewee 18).

These reflections are reminiscent of observations made by Anantharaman et al. (2019) and Bell and Bevan (2021) about the failure of community sustainability projects / the climate movement in Global North contexts to appeal to working-class and people of colour. However, contrary to the perspective shared above, Bell and Bevan (2021) found that these marginalised social groups do express high levels of concern for the environment, and it is other factors, such as the alienating structures, cultural norms, and tactical choices of grassroots environmental groups which are the main deterrents to more working class and people of colour becoming involved. So, what's interesting to note in the above perspective is that the *perception* of a fundamental mismatch between the values of people experiencing multiple marginalisations and grassroots groups with a focus on environmental issues may itself be a barrier to more intersectional organising. This underscores the fundamental importance of investing time and creative energy into fostering good relations and mutual understanding among diverse communities, as described in the conceptual framework in chapter 2, to avoid a situation where the perception of misaligned values becomes a self-fulfilling prophecy.

4.5.2. Unhelpful funding structures

Secondly, unhelpful funding structures, which have long been acknowledged as a challenge for waste projects at the community level (Sharp and Luckin 2006: 284), placed significant constraints on GWIs' ability to take an intersectional approach. In cases such as Scotland's Climate Challenge Fund, a major funder of GWIs in Scotland prior to 2023, funds were only granted to cover capital costs and setting up

new innovations, rather than ongoing costs and staffing costs (Cook 2022). This makes it difficult for existing projects to become established within their communities over time, and leads to job insecurity for staff. Unsurprisingly, this is not conducive to staff having time and personal capacity to explore multiple ways of making a difference socially. One interviewee, a member of a grassroots environmental group running a reuse hub, explained how the lack of resources to recruit and retain more staff and volunteers undermined efforts to build relationships and coalitions with different grassroots groups addressing multiple interconnected social issues:

> We struggle to do the things we've already said we're going to do. Like, we don't have a Development Manager, we don't have anyone on the Board with loads of time on their hands to go, 'actually yeah, I'll go and meet that group', or 'I'll go to this and just see what happens'. (Interviewee 8).

It was also noted that funding bodies tend to grant funds for projects which are *either* environmental *or* social (Interviewee 18). Funding bodies typically require impact auditing, and it is easier for GWIs to measure impact when they adopt a single-issue focus. The bureaucracy and heavy workload involved in securing and retaining funding, combined with external pressures to quantify the "success" of the initiative, undermine attempts to explore more intersectional and radical modes of organising. As Skarp (2021) points out, rigid funding requirements are constraining the ability of community groups working with waste to prefigure radical alternatives to capitalist waste management paradigms. We find here that this same rigidity is also constraining their ability to take an imaginative, intersectional approach to tackling diverse but intertwined social and environmental issues.

Anxieties around funding being denied or withdrawn were also discussed by one GWI organiser, who reflected on how the risk of loss of funding was a deterrent when it came to more radical or contentious political action:

> I don't think we're really activist anymore. Like, we used to be strongly activist, and anything we grew [came] out of that activist base, but we became, uh, less and less activist as we, as we grew […] [It was] when the resources started to crunch down, and we had to start making serious decisions about premises, and how we were gonna allocate resources, and whether the company was actually gonna be able to continue to exist, that we started getting a much more risk-averse vibe. And if you were doing anything activist, you are actively campaigning against the state, or some other interest, and they are usually the people who hold all the money. So if you're, if you're worried about money and resources and keeping your organization going, it's a tricky balance to strike, to, to be activist, actively activist, and also keep your organization going. (Interviewee 9).

Such anxieties about losing out on funding for expressing radical politics are well founded. Critics of neoliberal capitalism in Western economies have drawn attention to the way that state power is consolidated through the funding and co-optation of grassroots groups and social movements; defanging these grassroots groups of their ability to meaningfully challenge the imperialist-capitalist state and replacing revolutionary movements with a "non-profit industrial complex" (Incite! 2017). Being a recipient of external state or foundation funding can come with pressure for grassroots groups to depoliticise their work – most notably pressure to stifle their anti-racist and anti-imperialist stances, and their criticism of apparatuses of state control including the military, police, and prisons (ibid., Durazo 2017).[19]

The belief that community-level projects which receive external funding should be politically neutral is baked in to state actors and funding bodies. This is evident in the following view expressed by a staff member working for a state-funded agency supporting circular economy initiatives in the community (though they expressed this as their personal opinion, and were not speaking as a representative of their employer):

> I was a member [of a reuse hub] at one stage, and I remember, they were having lots of very political messaging in their […] email newsletters and stuff. And I went back to them at one stage and said, look, I'm a member 'cause, I want to reduce waste, but I don't really want to get involved with the politics […] And they said, well, we are very much a campaigning organisation, and that is one of our key goals, that we want to change the system, and we are here to campaign for change, and it's not just about waste. So we kind of had a bit of a disagreement on that front (Interviewee 15).

It should be noted that none of the practitioners I spoke to who were organising with GWIs recalled actual experiences of having funding denied or withdrawn as a result of their group taking a stance on

---

[19] In the Incite! collective's book on this subject, *The Revolution Will Not Be Funded: Beyond the Non-Profit Industrial Complex*, activist Andrea Smith describes how Incite! had a grant offer of $100,000 from the Ford Foundation revoked over Incite's solidarity statement in support of Palestine (2017: x). The sanctioning of grassroots voices expressing solidarity with oppressed Palestinians is intensifying at the time of writing, due to mounting public protest over Israel's ongoing mass killings in Palestine and the diplomatic and military support Israel receives from Western governments including in the UK. For example, in February 2024, Arts Council England announced new guidelines warning that funding agreements could be broken for recipients making "political statements". A Freedom of Information Request by the arts union Equity later revealed that the new guidelines were put in place explicitly in response to artists making statements in solidarity with Palestine (Equity 2024).

contentious political issues. Likewise, none of the representatives I spoke to from supporting institutions stated that they had an official policy against supporting GWIs which openly express radical political views. However, the perception that GWIs should be politically "neutral" (following definitions of neutrality set by hegemonic institutions, which are of course anything but neutral), was visible under the surface. Regardless of whether or not conflicts with potential funders would definitely result in a loss or lack of funding for GWIs, the perception that this *might* occur was a barrier to GWIs expressing more radical intersectional politics in at least one case (Interviewee 9).

4.5.3. Tokenisim and the risk of a superficial approach to intersectionality

Lastly, an additional challenge GWIs face when it comes to intersectionality is the risk of tokenising people from marginalised groups. Scholars concerned with intersectionality have drawn attention to the ways in which the concept has been appropriated to reinforce essentialist categories of difference which are themselves oppressive, and used by neoliberal institutions to showcase examples of "diversity" in a performative way, instead of dismantling entrenched hierarchies and power structures (Di Chiro 2020, Jibrin and Salem 2015, Bilge 2013). One interviewee spoke to such concerns, and stated that there would be a risk of tokenism if the organisation attempted to bring in more people of colour purely for the sake of wanting to appear to be diverse:

> I think there's a risk in that scenario [that] you go out and you meet, you know, another group or another network and they're like, what are you actually bringing to the party other than the desire to be seen alongside, you know, another social group, and kind of tick your box? (Interviewee 8).

 This note of caution relates back to issues around lack of capacity, time, and resources to develop meaningful and reciprocal relationships across diverse groups. It also suggests that an insufficient understanding of intersectionality can lead to blunders (Mason 2019). In some cases, trying to "include" marginalised groups in an overly prescriptive vision of waste prevention could be counter-productive for social justice. For example, a representative from a reusable period products initiative pointed out that reusable period products are not suitable for unhoused people, because:

> a lot of the time these people don't have access to private bathrooms, and they don't have access to places where they can sterilize their products in a very good manner. So that can lead to higher risk of infections, and it's just, yeah, it would be great if there was a solution for that, but at the moment I would say like, reusable period products are useful for tackling period poverty in places like outside of homeless shelters. (Interviewee 5).

This observation mirrors conclusions drawn by Vora (2020) that a "donation-based approach" to tackling period poverty has significant flaws. For people who menstruate and who experience multiple marginalisations including homelessness, civil society groups donating products – whether disposable or reusable – does not resolve deeper structural issues of housing justice, economic justice, and personal agency. Therefore, attempting to include marginalized groups within a normative approach to waste prevention, without attending to other pressing structural issues marginalised groups face, could reinforce marginalisation, as well as the social distinction of privileged groups (Anantharaman 2022).

What's clear is that approaching intersectionality in a genuinely radical and politicised way requires careful thought, critical awareness, and self-reflexivity (Jibrin and Salem 2015). This is integral to fostering good relations in pursuing transformative waste work (see Chapter 2). GWIs which are already struggling to meet the ever-growing demands placed on them by the failures of mainstream systems of provision unsurprisingly also struggle to undertake this critical intersectional work. However, the awareness shown by some participants that a tokenistic approach to diversity and intersectionality can do more harm than good is nonetheless promising. In an era of increasing corporate appropriation of the aesthetics of progressive politics – from Pepsi's ill-judged commercial riffing on Black Lives Matter protests (Grady 2017), to accusations of pinkwashing against high street banks sponsoring LGBTQ+ pride events while continuing to profit from human rights abuses via their investments (Fossil Free Pride 2023) – attempts to jump on the bandwagon of diversity should rightly be approached with caution. Relationships built between GWIs and other community projects representing multiple social justice struggles need to be genuine, reciprocal, and sustained in the long-term, not simply activated on a whim for image-boosting purposes. Intersectional self-reflexivity can help GWIs determine how to be part of the solution, rather than part of the problem.

4.6. Summary and concluding remarks

Grassroots and community-level organisations, innovations, and projects continue to be a dynamic facet of waste prevention and management in the UK. They have shifted their focus from recycling to higher levels of the Waste Hierarchy, especially reuse, since previous studies were carried out in the mid-2000s. In this chapter, I have expanded on Skarp's 2021 study of the UK Community Waste Movement, by showing that grassroots waste innovations are active not only at the level of reuse and preparation for reuse, but also, that they are playing a role in challenging, disrupting, and rethinking the consumption

patterns which generate discards in the first place. GWIs in the UK cover a wide range of waste streams and materials, including textiles, surplus food, furniture, and plastics, among others. In addition, there are some examples of GWIs which focus on helping communities and individuals to transition away from using single-use items in the first place. Period products, nappies, and single-use plastics are among the waste types targeted by these GWIs. By including initiatives such as the Women's Environmental Network's reusable nappy project, and Plastic Free Communities' interventions to help local businesses move away from single-use plastics, the definition of what constitutes grassroots innovations for waste prevention is expanded considerably. Innovation occurs not only in terms of how discards are dealt with, but also in terms of how consumption is practiced or avoided.

This chapter has then addressed the extent to which GWIs are engaged with intersectionality. Intersectional approaches to addressing overconsumption and excess waste are needed more than ever, but in the UK it has not been clear before now whether intersectional approaches exist or, if they do, what they look like. In addressing this question, I have highlighted the difference between intersectionality and social impact; acknowledging that previous studies (e.g. Luckin and Sharp 2005) have explored the social impact of community waste projects, but have not addressed the extent to which these projects display an intersectional understanding of waste and social injustices as fundamentally intertwined within systems of discarding. Having made this distinction clear, I then outlined findings from the interview-based study undertaken for this chapter. The findings show that intersectional approaches to waste are not typical for GWIs, but there are some compelling examples of GWIs which have begun to engage with intersectionality. Where intersectional approaches to waste can be identified, these approaches manifest through framings (how problems, solutions, and possibilities are understood within projects), project design, and coalition-building. In some cases, I found that intersectional framings may be used to understand how waste is intertwined with multiple oppressive systems of dominance and subordination, but people who participate in GWIs are unsure of how to translate these framings into project design, or feel that there are significant barriers to doing so.

I then discussed three key barriers to taking an intersectional approach, which emerged from the data. Firstly, participants have concerns over conflicting political values, and worry that expressions of radical intersectional politics will be off-putting to the public and potential participants. Secondly, GWIs are constrained by a challenging funding landscape, meaning that they struggle with a lack of funding and subsequent lack of capacity and resources to undertake critical intersectional work including coalition building, and in addition, anxieties over funding being denied or withdrawn are a deterrent from

expressing more contentious radical politics. These challenges are certainly not new for GWIs and the community sector in general: indeed, they have long been acknowledged as barriers for the longevity of projects, as well as their ability to upscale or replicate. However, the findings presented in this chapter offer a new perspective on why problems of funding, capacity, and resources for GWIs and community sustainability projects need to be systematically addressed. Finally, there is a risk of clumsy and tokenistic approaches to intersectionality for GWIs, when a "box-ticking" approach to diversity is applied, instead of taking the time to build meaningful and reciprocal relationships across multiple struggles. Encouragingly, participants in the study showed critical self-reflexivity about the difference between meaningful and superficial intersectionality.

In this chapter, I have demonstrated the usefulness of bringing together theories of intersectionality and grassroots innovations. An intersectional lens on sustainability-focused innovations can illuminate whether these innovations are reproducing oppressive power structures, or actively challenging them. My research compliments work by, for example, Sharma et al (2023) and Aruga et al (2023) in this regard, as well the exciting new field of Discard Studies, which places questions of power and systems at the heart of research on waste and its associated crises (e.g. Liboiron and Lepawsky 2022, Fuller et al. 2022, Liboiron 2021). Intersectionality sheds new light on the many forms of value GWIs can have, beyond their quantitative impact on reducing waste and associated emissions. Applying an intersectional lens to the study of grassroots innovations can add new vitality to the field, moving beyond established debates over the extent to which these community level projects can scale up and interact with mainstream waste policy agendas, or tensions around whether or not they are part of a neoliberal agenda of scaling back government and corporate responsibility for environmental and social issues. I have shown that GWIs have the potential to provide interventions into the multiple, interconnected systems of oppression which underpin the dominant paradigm of linear resource extraction, unsustainable consumption, and excess waste.

Furthermore, I have contributed to the extensive and diverse field of intersectionality, by opening up a new area of intersectional praxis for analysis. As intersectionality theorists have argued, keeping intersectionality thoroughly grounded in practical examples of political organising is extremely important, to prevent the co-option of intersectionality into depoliticised, neoliberal structures (Di Chiro 2020, Jibrin and Salem 2015). My analysis has illuminated what intersectional approaches can look like in practice for grassroots sustainability innovations, and how intersectionality emerges through framings, project design, and coalition-building. This speaks to the novel conceptual framework

discussed in Chapter 2, particularly how GWIs adopt a multidimensional analysis of harm and a multidimensional approach to resistance, and how they succeed or struggle in fostering good relations across diverse communities.

As I discussed in chapter 3, these results are limited in that they are based on reports from interviewees and public-facing documents, rather than in-depth analysis of how GWIs operate on the ground. There is a need for more in-depth, case study research to explore the intricacies of intersectional GWIs, and to verify the statements made about the ability of GWIs to contribute to an intersectional social and environmental justice agenda in the context of waste. The next chapter of this thesis introduces two case studies which are fruitful examples of grassroots innovations taking an intersectional approach to confronting waste and the many interlocking systems of harm and privilege associated with it.

Chapter 5: Two cases of intersectional grassroots waste innovations

In this chapter, I will take a closer look at two cases of GWIs which take an intersectional approach to their work on reducing waste. Having established in the previous chapter that there are indeed some GWIs in the UK which are engaged with intersectionality, and that this can manifest in various ways through framing, project design, and coalition-building, there is now a need to examine in more detail what this looks like on the ground. In addition, the barriers and challenges to intersectional organising for GWIs discussed in the previous chapter also need closer examination in context. This chapter addresses the second research question of this thesis:

RQ2: What does intersectional organising look like in grassroots waste innovations?

This chapter introduces two case studies which are examples of grassroots innovations taking an intersectional approach to dealing with waste: Govanhill Baths Community Trust (GBCT) in Glasgow, and the student society Bloody Good Period at the University of East Anglia (BGP UEA) in Norwich. The former, GBCT, is an example of grassroots waste innovation taking action at the "Reduce and Reuse" level of the Waste Hierarchy, while the latter, BGP UEA, is an example of grassroots waste innovation taking action at the top level of the Zero Waste Hierarchy, "Refuse/Rethink/Redesign" (Simon 2019, see Chapter 4). Together the two cases represent the dominant domain of grassroots action on waste (reduce and reuse), and the emerging domain (refuse, rethink, and redesign).

In this chapter, each case study will be discussed in relation to the three features of an intersectional approach identified in the previous chapter: framings, project design, and coalition building. I draw on the conceptual framework outlined in Chapter 2, to bring insights from discard studies and intersectionality theory into my analysis of how each case attempts to approach waste in an intersectional way. In addition, I analyse some of the challenges and missed opportunities which emerge for each case study in relation to intersectional framings, project design, and coalition building.

Before proceeding, I will reiterate that these case studies are not presented as templates for other GWIs to follow. There is no one-size-fits-all way of "doing intersectionality". Different axes of injustice are salient in different contexts, and each case must be analysed in its own specific political, social, relational, and historical context (McKinzie and Richards 2019). Furthermore, generalisations about the needs and perspectives of marginalized identity groups are problematic, because they reinforce

essentialism and erase differences between individuals and between contexts (McKinzie and Richards 2019, Hutchinson 2001). So, the case studies discussed here are examples which serve to illuminate possibilities. They expand our understanding of the significance and validity of grassroots action on waste and sustainable consumption, which can achieve more than simply a reduction in waste tonnage and equivalent carbon savings. They illustrate just some of the many diverse ways that GWIs can contribute to transformative new systems for discarding well – a theme which will be discussed in depth in the next chapter.

5.1. Introducing the two cases.

As discussed in Chapter 3, two case studies were selected using a maximum variation sampling strategy (Flyvbjerg 2004) and to build on insights gained in the mapping study, regarding the diverse ways GWIs engage with intersectionality. The cases differ from each other in a number of significant ways, regarding the types of waste they work with, the level of the waste hierarchy they work at, their local context, membership base, structure, and their situatedness in relation to broader social justice and environmental concerns (see Chapter 3, Table 3.3.). Therefore, they offer two notably different windows on what intersectionality can look like in GWIs. In what follows, I introduce each case study and provide detail on its background, context, core activities to prevent waste, and its organising structures.

5.1.1. Case Study 1: Govanhill Baths Community Trust (Glasgow, Scotland, UK).

GBCT is a well-established community organisation in the Southside of Glasgow, concerned with local health and wellbeing, heritage, and sustainability. The area in which it is based, Govanhill, is a historically working-class area, and has had high levels of immigration since it was established in 1877, with respective waves of Irish, Italian, Jewish, South Asian, and Eastern European migrants settling there due to the appeal of affordable housing and opportunities for employment (De Main 2015). As of 2023, it is the most ethnically diverse area in Scotland, with 40-45% of residents belonging to ethnic minority groups (Govanhill Community Development Trust 2023). The area is known for high rates of poverty, inadequate housing, exploitation of tenants by private landlords, poor waste management, and bed bugs and other pest control issues (Adams and McKay 2016, Adams 2016, Lynch 2017). Negative stereotypes about the area and its residents – particularly in relation to crime and uncleanliness – are well-documented (MacKay 2018, Adams and McKay 2016). These longstanding prejudices sit alongside local concerns about gentrification, triggered by a surge of independent and trendy businesses

appearing in Govanhill, and an influx of more affluent people moving into the area (Armstrong 2022, Dibb 2020).

GBCT works against the backdrop of these complex community dynamics. GBCT was established by community campaigners in 2005, to take over the Govanhill Baths [swimming pool] from Glasgow City Council. The Council had made an abrupt decision to close the pool in 2001, without community consultation, and despite it being a vital community resource since its opening in 1917 (Downie 2021, De Main 2015). The establishment of GBCT followed a long-running grassroots campaign to save the swimming pool from closure, which included an occupation of the building lasting 141 days, and a 24-hour picket line throughout this period (Downie 2021: 80-87, Figure 5.1). The "Save Our Pool" campaign proved to be hugely significant in terms of building an intersectional community movement. Lynch (2015) writes that Govanhill Baths had always been a space where people from many social backgrounds mixed, but the announcement that the pool would close turned "passive connection" into "collective action" (69). The loss of the Baths was detrimental to Govanhill residents from all walks of life, albeit for different reasons. It affected older people and those with mobility issues, who were unable to walk to other leisure centres in the Southside, as well as working class families unable to afford the bus fare, young men for whom walking to leisure centres in other districts was risky due to tensions with other groups of youths, and Muslim women who appreciated the greater level of gendered privacy afforded by Govanhill Baths. The closure of the Baths was therefore something to unite and fight against (Downie 2021: 79). According to sources who took part in the original campaign and are still involved in the Trust today, the occupation and the Save Our Pool campaign laid the groundwork for strong community solidarity, and a commitment to working together across diverse political, religious, and racial identities, in recognition of the common cause of saving an irreplaceable community asset that catered to many different sets of needs (GBCT.1, Downie 2021, de Main 2015).

Figure 5.1. Govanhill residents at the picket line outside the condemned Govanhill Baths during the occupation of the building in 2001. Photo by Nick Sims (Govanhill Baths Community Trust 2024).

GBCT runs a range of projects which aim to improve the overall quality of life in the local area, alongside its ongoing work to refurbish and reopen the swimming pool. For this case study, I looked at two of GBCT's projects focused on reducing waste. The first, Rags to Riches, is a reuse and upcycling hub, first established in 2011. It is situated at the "reduce and reuse" level of the Waste Hierarchy. At the time of my fieldwork, Rags to Riches worked across three waste streams: textiles, wood, and plastic. Most of these discarded materials were sourced from donations from local businesses or collected from litter found in the local area. Rags to Riches was running out of "The Deep End", one of two of GBCT's temporary hubs during the refurbishment of the original Baths building. There was a textiles studio, a woodwork studio, and a plastic recycling studio with machinery sourced from Precious Plastic, the global network promoting D.I.Y plastics recycling through providing open-source designs and affordable machinery to grassroots innovators. Each of these waste streams had at least one staff facilitator, who was responsible for running workshops, supervising volunteers, and making items from waste materials to be sold on commission and at GBCT events. These staff members were overseen by the Rags to Riches manager, who was answerable to the director of GBCT. A paid events officer took responsibility for running monthly craft and vintage markets, in which locals could pay a small fee to sell their

149

creations or their second-hand clothes and accessories. Rags to Riches operated partially as a social enterprise, selling remade items to the public and on commission, as well as offering a series of workshops which members of the public could pay for. These revenue-generating activities helped cover the cost of sustaining the initiative, as well as allowing Rags to Riches to provide a programme of free "outreach workshops", in partnership with various local organisations catering to marginalised groups such as asylum seekers and survivors of domestic violence (Fieldnotes).

The second GBCT project I looked at was the People's Pantry, a community supermarket offering affordable food under a membership-based model. Locals living within a specific postcode range were eligible for membership. Members of the People's Pantry were eligible to shop there once a week. Each member paid £3.50 per shop, and this entitled them to between 10 and 12 grocery items, worth the equivalent of around £15 - £20. A subsidized food shop for £2 was available for people in severe financial difficulty, who were referred to the Pantry by other local service providers. The food sold in the People's Pantry was sourced from donations of surplus food, provided by the food redistribution charity FareShare (to whom GBCT paid an annual subscription), and by various local businesses. The People's Pantry was part of a growing wave of community and grassroots organisations across Britain which, in theory, reduce food waste by redistributing edible surplus food[20] (though interviewees involved in the Pantry were sceptical over the extent to which it succeeded in reducing waste overall – see Section 5.2.1. of this chapter]). The People's Pantry is thus also situated at the "Reduce and Reuse" level of the waste hierarchy. The surplus food provided in the People's Pantry was supplemented with fresh fruit and vegetables purchased directly from wholesalers. Members also had the option of bringing their own containers to fill up with unpackaged goods such as lentils and flour. The Pantry opened in 2020 during the COVID-19 pandemic as an intervention to address food insecurity in the local area. It took a rights-based approach to food provision instead of the traditional charitable approach of food banks, focusing on respecting the agency of members and their right to choose from a selection of nutritious, culturally appropriate foods (GBCT.1, GBCT.12, GBCT.13). The People's Pantry had a full-time manager employed by GBCT, and a team of volunteers who assisted with picking up donations, stocktaking, and working on the shop floor. The Pantry operated Monday-Friday each week between the hours of 10:00 and 16:00.

---

[20] The national charity FareShare reports that it currently supplies nearly 8,500 community organisations with surplus food (FareShare 2023).

5.1.2. Case Study 2: Bloody Good Period, University of East Anglia.

Bloody Good Period UEA (BGP UEA) is a student society based at the University of East Anglia, which runs various initiatives to pursue equity and improved quality of life for people who menstruate. Formed in 2019 by student volunteers, the group was inspired by the national charity Bloody Good Period (see Chapter 4), but it organises autonomously and is not formally affiliated. The group was initially motivated by a desire to tackle period poverty at the university. Period poverty is defined as the inability of people who menstruate to afford or access period products such as tampons and pads, and the impact this has on their social inclusion and mental and physical wellbeing (Briggs 2021). Like most student societies at UEA and other universities, BGP UEA was run entirely by student volunteers, overseen by an elected student committee. In the academic Year 2021-2022 the committee consisted of a President, Vice President, Secretary, Health and Safety Officer, Equality and Diversity Officer, Events and Socials Officer, Fundraising Officer, First Year [students'] Representative, and Students' Union Council Representative (responsible for representing the Society as a voting member of the UEA Students' Union). At the time of my fieldwork in 2023, the committee had been significantly reduced in size from previous years.

The creation of BGP UEA speaks to two trends observed in recent scholarship on period poverty in the UK. Firstly, period poverty is affecting more and more people due to the impact of austerity and the individualisation of responsibility for poverty (Briggs 2021, Vora 2020). The number of people experiencing period poverty increased significantly during the COVID-19 pandemic, and according to Plan International 36% of girls aged 14-21 struggled to afford or access period products during national lockdowns (Plan International 2021). Secondly, public discourse around period poverty has also grown in prominence over the past decade, as media outlets, celebrities, and politicians increasingly recognise it as a feminist issue (De Benedictus, 2023). Activism and advocacy on the issue of period poverty simultaneously reflects both the neoliberalisation of feminism through its focus on the individual as the locus of change, and feminist opposition to the structures of austerity and the individualising forces of neoliberalism (ibid.). In this sense, concern around period poverty sits at the nexus of two paradoxical but salient trends within feminist organising in Britain, making it a high-profile issue for students developing a feminist political consciousness.

Recognising that students face significant issues of period poverty, and connecting this with the misogynistic culture of shame around menstruation (Wood 2020, Laws 1990), BGP UEA had three initial goals: firstly, to tackle period poverty on campus by sourcing and distributing period products (pads and

tampons) for free. Secondly, to tackle the stigma surrounding menstruation and the bodies of people who menstruate, while promoting empowering and inclusive education on periods and related issues of reproductive and sexual health. Thirdly, to fundraise for the national charity Bloody Good Period, to support their period product provision and advocacy work at a national level (BGP.2, BGP.3, Fieldnotes). BGP UEA initially began providing free period products in the university by setting up a donation point in the Students' Union. They then distributed the donated products for free at a "donation station" in the library in the academic year 2020-2021 (a year marked by COVID-19 restrictions). Alongside this expression of mutual aid, members of the society lobbied the university to take over responsibility for providing free period products in every building on campus. These efforts eventually paid off, and in February 2023 the university announced the launch of a new permanent scheme to set up donation points in every university building (BGP.5, Fieldnotes).

Although waste and sustainability were not initially part of the core focus of BGP UEA, their work soon expanded to include concern over the environmental impacts of conventional period products, and a desire to promote reusable alternatives and make them easier for students to access (BGP.2, Video 1). By working to facilitate a shift away from single-use, disposable period products, the group took action at the top level of the Zero Waste Hierarchy: "Refuse/Rethink/Redesign". This makes it atypical for GWIs, as the majority focus on reuse and other activities to work with already-existing discards, rather than preventing the generation of discards by subverting the purchasing of single-use products.

It should be noted that disposable pads and tampons are not the only discard relevant in the case of BGP UEA. Menstrual blood itself is a discard, and the group was highly engaged in transforming systems and cultures of discarding around menstrual blood. This will be discussed in more detail in Chapter 6. But for the purposes of this chapter, I will focus on BGP's work to reduce waste associated with single-use period products, as this was what the society members themselves saw as their primary concern in relation to waste, the environment, and the intersecting forces of patriarchy and capitalism. Participants in BGP who championed reuseable products were primarily concerned with the need to prevent plastic waste from disposable products, and to reduce the impact of discarded products on marine ecosystems and the water system. Concerns were also expressed about the CO2e emissions from the disposable product lifecycle (BGP.1., BGP.6., Video 1, Podcast 5, Hait and Powers 2019). Promoting reusable period products was also highly relevant to BGP's goal of helping people who menstruate to save money, as these products result in significant financial savings in the long run despite costing more up-front (Hait and Powers 2019). The group therefore undertook a range of initiatives between 2019 and 2023 to

promote and facilitate the uptake of reusable period products, including a cloth-pad making workshop (BGP.3), stalls giving away free reusable products which had been donated by other organisations (BGP.1, Fieldnotes), and a special event on the theme of Periods and the Environment (Video 1). The society also worked with the elected Women's Officer in the Students' Union to launch a free period cup scheme. Period cups were purchased using the budget of the Student Organising Committee, and any student could request a free period cup using an online form. Welfare staff at the Students' Union were responsible for administering the scheme, which was still ongoing at the time of my fieldwork (BGP.9, BGP.10).

Sustainable Periods

ORGANIC PADS & TAMPONS
- biodegradable and made from 100% GOTS, using 71% less water and 62%
- less energy to produce
- cost: £2-£3 for a pack of 20

REUSABLE PADS & TAMPON
- can last up to 4 years
- cost: price varies depending on the brand

NON-APPLICATOR/CARDBOARD-APPLICATOR TAMPONS
- creates less plastic waste.
- cost: similar price to plastic-applicator tampons

REUSABLE TAMPON APPLICATOR
have a 70% smaller emissions footprint and last up to 10 years
cost: £16 from DAME

PERIOD PANTS
made of bamboo viscose, which grows without causing any damage to the soil; last up to 2 years.
cost: price varies depending on brand

MENSTRUAL CUP
can last up to 10 years
cost: price ranges from £8-£25

Eco-friendly and sustainable products are better for your body, the environment and your bank account, what is stopping you from switching?

Figure 5.2. Infographic made by BGP UEA to promote reusable period products.

5.2. Intersectional framings in the case studies

In both cases, some or most participants used intersectional framings in how they understood the nature of the problems they were working to address (Benford and Snow 2000). Participants in both cases viewed excess waste as not simply a problem of individual behaviour or technological inefficiency, but as a phenomenon shaped by multiple overlapping systems which have a myriad of harmful social as well as environmental effects. Participants framed their waste prevention work as interconnected with

their desire for social and political transformation for the benefit of people who are marginalised in various ways. However, the two case studies used intersectional framings to differing extents and in different ways. Interestingly, the ability to adopt intersectional, multidimensional framing and analysis of waste problems also led participants to be at times critical of their own work, as we shall see.

The cases differ in significant ways regarding which systems of power and oppression they framed their work in relation to. The contrasting framings in each case were informed by the social, historical, and geographical context of each of the cases (McKinzie and Richards 2019), the embodied and lived experiences of participants (Atewologun and Mahalingham 2018), and awareness of how power and oppression are sedimented in the institutions and societal structures each GWI interacted with (Walby et al. 2012). The diversity in how intersectional framings emerged in the case studies reflects the diversity of perspectives and interpretations which exist in intersectionality scholarship writ large (see Chapter 2).

5.2.1. Framings in GBCT

In my conversations and interviews with staff and volunteers working on GBCT's two waste-focused initiatives, it became apparent that most people framed waste and environmental issues in an intersectional way. It was widely acknowledged that there were significant problems with waste in Govanhill, from overflowing bins and the accumulation of uncollected rubbish in backyards, to litter on the streets and fly-tipping (GBCT.1, GBCT.9. GBCT.10, GBCT.11, GBCT.14, GBCT.16, GBCT.17). However, these issues were framed by most interviewees as inextricably linked with racism, class inequality, anti-migrant sentiment, and poverty. Interviewees were therefore concerned not only with the need to reduce waste, but equally with the need to tackle these pervasive systemic injustices.

One interviewee, a senior staff member and long-time organiser with the Trust, expressed the view that the lack of adequate waste collection services in the area was the result of legacies of discrimination against a predominantly working class, immigrant, and multiracial community. They linked this discrimination with other environmental injustices affecting working class communities in everyday life:

> So the environmental issues affecting working class communities has been part of our struggle, uh, for quite a long time [...] we're stridently working class. We're stridently, um, anti-poverty, and all the other stuff that comes with having to, you know, live as a working-class community, particularly given the conditions now, the conditions now for ordinary people. And we've been conscious that working class people [...] we're disproportionately affected by the environmental crisis. You know, we know that the poor are more likely to use prepayment meters to heat their homes. You know, suffering from energy

crisis at the moment, you know, people coming to get vouchers and so on, we know that the poor are less likely to have well-insulated homes […] [And] a lot of the immigrants here are also climate refugees who had to flee their homes because of drought, and flooding, and so on […] Govanhill, because it's the most congested community in Glasgow, it has so much more rubbish in the streets. Our bins don't get emptied. I mean, you only have to go to Pollokshields around the corner to see every house in West Pollokshields[21], every house has a number of bins for themselves, where[as] we have to share, you know, tiny backcourts, congested, you know, families of five and six and so on, um, having to share back courts with rubbish, and there's rubbish everywhere and no proper recycling. So in all aspects of the environmental crisis, we know as a poor working-class community, we, we are at the coalface of a lot of those problems. (GBCT.1).

Reflecting Bell's (2020) insights on working-class environmentalism, the interviewee frames excess waste in Govanhill as intertwined with other environmental issues which are often overlooked by mainstream environmentalist discourses and movements, including sub-standard housing conditions, unaffordable essential services such as home energy, and urban overcrowding. Addressing waste is therefore framed as inextricable from GBCT's "anti-poverty" political stance, in addition to a broader focus on global climate justice to reflect the perspectives of members of the local migrant population who had direct experience of climate change related disasters. The interviewee suggests that advocating for better environmental conditions, including reduced waste, goes hand-in-hand with embracing a "stridently working class" collective identity. As social movement theorists have argued, the establishment of collective identity in this way is central to effective political organising (Della Porta and Diani 1999: 83-109), but it is rare for community sustainability projects in the Global North to mobilise such collective identities, given that they tend to be dominated by middle class, white, and university educated participants (Anantharaman et al. 2019). The interviewee's emphasis on an explicitly political identity for GBCT as an organisation is notably different from the hesitancy shown by other GWIs in this regard, as discussed in Chapter 4.

Other interviewees also felt that issues such as overcrowded housing, poor urban planning, under-resourced public services, and a failure of the City Council to "embrace their duty" (GBCT.11) had contributed to inadequate waste management in the area (GBCT.9, GBCT.8). Interviewees pointed out that poorer residents cannot afford to pay for privatized bulky waste collections, and housing insecurity means that people's possessions are often discarded when they have no-where to go (GBCT.9, GBCT.10, GBCT.13, GBCT.4). One interviewee, a volunteer with Rags to Riches, explained how this plays out:

---

[21] A neighbouring district in the Southside, known for being more affluent.

It's quite shocking in Glasgow, seeing [...] the way poverty creates waste [...] if people are, you know, have to move on or are evicted or whatever, you know, then it's all out on the street, and you see that all the time in Glasgow. It's upsetting because they can't move it [...] so that level of insecurity means things can't be precious. People that are homeless, they just have to leave stuff lying. (GBCT.4).

In addition, a volunteer with the People's Pantry implied that the waste which accumulated in the local area was not always caused by the residents themselves, but by negative perceptions of the area and classist prejudice against people who live there, which lead to it being used for fly tipping by outsiders:

There is the perception [...] of an underclass here [...]my husband is quite [aware] that people use [the area] for fly tipping. [...] [The] perception is it's a slum area, let's just dump our waste on somebody's front yard. (GBCT.17).

Waste is therefore framed in relation to systemic poverty, the environmental injustice of inadequate urban planning, and classism against Govanhill residents. In addition, racial dynamics and the complexities of migration and the life histories of migrants were also understood to play a role in waste problems in Govanhill. Interviewees drew attention to the struggles faced by the local Roma population, a significant ethnic minority group in Govanhill, many of whom immigrated to Scotland from Eastern Europe in the mid-2000s. In the words of a senior staff member:

When the Roma community started settling [...] here, there was a lot of racism towards them. They were blamed, as racism [does], they were blamed for everything from, you know, rubbish in the streets to theft, and all sorts of awful, awful things. (GBCT.1).

Anti-Roma prejudice in Govanhill is well documented (e.g. Mackay 2018, Poole and Adamson 2007, Clark 2014). Structural barriers to consistent and adequately paid employment, as well as lack of access to state support, lead many Roma migrants to live in severely overcrowded rented flats, often without tenancy agreements (Poole and Adamson 2007). The long history of persecution and racism against the Roma in Europe – a key factor in the migration of many Roma people to Scotland – also makes it more difficult for the Roma to seek justice from mainstream institutions (ibid., Mackay 2018). Poole and Adamson's report on 'the situation of the Roma Community in Govanhill' notes that these untenable housing conditions for the Roma have resulted in community tensions surrounding issues of noise and waste (2207: 38). One GBCT staff member addressed this issue, explaining how poor waste management practices among some Roma households must be understood in the context of the overlapping oppressions and the extreme precarity affecting the Roma population in Govanhill. The interviewee

expressed the view that the racism and structural discrimination faced by the Roma community must be addressed, in order to change the community's relationship with the area in which they live, and facilitate better engagement with waste management systems. Tackling waste problems is thus a matter of intersectional social justice, not simply education or awareness-raising:

> if you feel that society doesn't offer you anything, you're perhaps more likely to think, well, I don't need to play my part either, because it's not going to give me anything. So […] it's about education, but it's also still about improving the conditions of the Roma community here, removing prejudice and racism, which I think they, they do still face on a very regular basis, and ensuring that they have access to healthcare and education and so on. (GBCT.14).

This holistic perspective on the need for structural change, to tackle the harmful systems which lead to people feeling that "society doesn't offer [them] anything", is a marked contrast from mainstream perspectives on waste management. Mainstream perspectives favour top-down interventions, such as information provision through targeted communications, to change people's attitudes and behaviours (e.g. Pegels et al. 2022). An intersectional framing of local waste issues, which accounts for vulnerabilities such as poverty, racism, housing injustice, and xenophobic discrimination, helps to illuminate why these top-down approaches fall short in cases such as Govanhill. Drawing on their intimate knowledge of social realities in the local area, and their relationships with other grassroots organisations such as the Roma advocacy network Ando Glasso (GBCT.14), interviewees in the GBCT case study had developed a nuanced framing of local waste problems as intertwined with the systematic discarding of the people and social groups considered undesirable in the development of the city (Lau 2023, Reno 2015).

It should be acknowledged that not all interviewees in the GBCT case study shared similarly nuanced framings of waste as an intersectional problem which must be addressed with multidimensional system change. Some interviewees aligned with the mainstream view of tackling waste by changing individual behaviours through education, and felt that Glasgow City Council, schools, and grassroots organisations all bore responsibility for this (GBCT.11, GBCT.16). In general, however, as the quotes above demonstrate, staff and volunteers working with GBCT tended to be highly engaged with the multidimensional, systemic drivers of waste. Rubbish on the streets, such as old mattresses, scrap furniture, and littered plastic, was framed inseparable from historical and ongoing dynamics of poverty, classism, environmental injustice, racism, and anti-migrant sentiment.

The framings discussed here resonate with the multidimensional analysis of harm in both intersectionality theory and discard studies (see Chapter 2). Both critical fields shed light on how oppressive systems result in marginalised communities being disproportionately burdened by waste and its related environmental and health effects, and also, how marginalised communities come to be seen *as* waste, in the upholding of dominant class and racial hierarchies, ethno-nationalism, and other supremacist systems (Lau 2023, Vergès 2019, Moore 2012). These dynamics are mutually reinforcing, as Reno (2015: 562) explains, quoting Bauman (2004): "when people and places become associated with waste, they may be seen as waste themselves, that is, disposable and abject subjects without potential." GBCT has been fighting back against the portrayal of Govanhill residents as waste since its inception, when the Council made the decision to close the original Baths and discard the needs of the local community in favour of a neoliberal city development agenda (Downie 2021). It is therefore unsurprising that participants interviewed in this study framed local waste issues in an intersectional way, with a critical awareness of waste as reflective of dominant systems of power (Liboiron and Lepawsky 2022, Liboiron 2018).

The intersectional framings of waste evident in the GBCT case study, and interviewees' understandings of the troubling relationship between waste and social marginalisation, led to ambivalent feelings about some of the work the organisation itself was undertaking. This was particularly evident in relation to the People's Pantry. Interviewees worried that the Pantry, despite the good intentions behind it, might be inadvertently reinforcing the derogatory association of marginalised groups with waste, because most of the goods it offered had been sourced from unsold supermarket food redistributed by FareShare. This surplus supermarket food was considered inadequate for meeting members' needs in many respects, due to lack of choice, lack of fresh ingredients, and the prevalence of unhealthy options. A senior staff member explained the problem:

> We're thinking, you know, ordinary people deserve better than discarded supermarket waste, and it also lets supermarkets off the hook in terms of their waste [...] [[and] you know, getting fresh fruit and vegetables through FareShare is not going to happen. (GBCT.1).

This discomfort with having to provide Pantry members with discarded food was also compounded by interviewees' awareness of how the People's Pantry had been subsumed into Britain's dominant food waste regime (Gille 2013). Concerns were expressed that the existence of initiatives like the People's Pantry allowed big supermarkets to outsource responsibility for the disposal of food waste onto already overburdened community organisations, thereby allowing food businesses to continue to operate in a

wasteful way while claiming to have a positive social and environmental impact (GBCT.13, GBCT.12, GBCT.1). As Giles (2014: 98-100) has observed, food waste is driven primarily by overproduction for profit, with the resulting excessive surplus externalised. One interviewee, a staff member who oversaw the daily running of the People's Pantry, described how the Pantry bore the brunt of this externalisation, being forced to manage the disposal of dumped surplus food which would go out of date before it could be redistributed:

> [T]his week, for example, we got everything what was dated like that, Monday or Tuesday, and that was the end of the day […] when you give [us] like six boxes which needs to go today of like mushrooms, you know, they will not go […] So basically what they do, they're taking in and then distributing waste and then we need to pay for the waste to be taken away. So it's not fair, you know. So, it's lots of challenges […] But it's obviously better than don't have it at all. That's for sure. (GBCT.12).

Adopting an intersectional lens here, and borrowing insights from Vergès (2021, 2019), we can reflect on how the externalisation of food waste from the capitalist food system onto grassroots organisations in working class, immigrant, and non-white communities is indicative of a neo-colonialist dynamic, in which it is primarily women from working class and / or migrant backgrounds who are expected to process the world's waste, to benefit the colonial capitalist core (Vergès 2021:16). Viewing the processing of food waste in this way adds a new perspective to the growing body of literature on waste colonialism, which is typically concerned with the transboundary movement of toxic waste, plastic, and e-waste (e.g. Peryman et al. 2024, Fuller et al. 2022, Pratt 2011). Just as Vergès's writing on female cleaning staff in the urban Global North shows how the neo-colonial core/periphery dynamic applies not only to geographically distant places, but is also alive within the colonial core itself, the positioning of GWIs like the People's Pantry shows how the neo-colonial externalisation of food waste impacts marginalised communities at the very heart of major cities in one of the world's wealthiest nations. The staff and volunteers I interviewed were clearly alert to these problematic dynamics. Nevertheless, they had chosen to navigate the discomfort of knowing that the People's Pantry was, at times, in tension with the organisation's emancipatory political goals. The Pantry was still viewed as a worthwhile endeavour, which could go some way towards alleviating the symptoms of food insecurity and wasteful food systems, if not their causes (GBCT.1, GBCT.12, GBCT.13, GBCT.17). It also had other intersectional benefits for the community aside from addressing waste and food insecurity, as will be discussed later in this chapter. Moreover, the ability of interviewees to be self-reflexive and critical of how the Pantry was positioned in relation to broader oppressive systems can be considered further evidence of the prevalence of intersectional framings in their work.

5.2.2. Framings in BGP UEA

From the outset of BGP UEA's work, its members framed the issue of securing free, accessible, and low-waste period products for all students as an intersectional one. The inequities faced by people who menstruate were seen as inseparable from the intersecting systems of patriarchy, economic inequality, racism, and queerphobia. Members of BGP UEA framed the society's work explicitly in relation to these intersecting systems, and many of them displayed a strong commitment to feminism in particular as a guiding principle (BGP.1, BGP.2, BGP.3, BGP.6, BGP.7). Interviewees viewed lack of access to menstrual products as intertwined with patriarchal power structures, which marginalise the bodies, voices, and experiences of people who menstruate (BGP.1, BGP.2, BGP.3., BGP.4., Podcasts 1 -4). These oppressive structures impact not only period inequity, but also many interrelated health issues and bodily experiences for people who menstruate, including endometriosis and dysmenorrhea, menopause, contraception, and reproductive rights (Podcast 3). One former committee member explained how their interest in these issues had directly motivated their engagement with the national charity Bloody Good Period, and their subsequent desire to contribute to running the unaffiliated student group:

> I was just really interested in like social inequality, gender inequality […] it probably all stems from the fact that just historically, any kind of issues that people who identify as women have is, you know, seen as a non-issue […] a lot of the time people don't get the help that they need, and I think you know, it's like unfortunately a lot down to patriarchy, men thinking that, you know, women's issues don't exist. (BGP.3).

For some of the interviewees, personal experiences of misogynistic medical bias, and frustration at the patriarchal ideologies under which "women have always just had to put with pain" (BGP.4), motivated them to engage with BGP UEA and other student groups adopting a feminist approach to health equity. Institutional racism was seen as a compounding factor, which results in oppressive experiences of healthcare for Black and other racialised women (Darko et al. 2024, MacLellan et al. 2022) -- part of a long history of the "double jeopardy" which has been a core concern of intersectionality theory (Beal 2008, Crenshaw 1989). One interviewee explained how being a Black woman made her particularly vulnerable to discrimination in healthcare:

BGP.7: My dad's a paramedic as well and he's always been like, oh, kind of says stuff to me, probably because I'm a Black woman as well, so he's drawn attention to, "If you go to a doctor, make sure you say this, this, and this."

[…]

Interviewer: [W]hat kind of advice did your dad give you? What would you need to do differently as a Black woman to get the healthcare that you need?

BGP.7: Just stuff like, when something's wrong, advocating for yourself, that you know it's wrong. Don't allow people to undermine you, because you know your body the best […] just being a strong voice for myself.

This kind of embodied experience of oppressive systems gave interviewees a sense of needing to take things into their own hands, and develop interventions at the grassroots level to combat the effects of systemic bias against people with minoritised bodies. Students involved in BGP UEA, and the network of other health justice student groups which BGP UEA collaborated with, connected their embodied experiences of discrimination with the macro-dynamics of gendered and racial oppression.

In addition to recognising the intersectionality of gender and race in negative experiences of menstruation and other gendered body and health issues, BGP participants identified an interrelationship between patriarchal power structures and the oppression of the LGBTQ+ community (BGP.3, BGP.6 Podcast 5, Fieldnotes). Lack of adequate education on periods, reproductive rights, and sexual health was considered to stem from the same heteronormative, patriarchal root as lack of adequate education on LGBTQ+ identities and rights. In keeping with bell hooks's notion of "white supremacist capitalist hetero-patriarhcy" (hooks 2003), all of these issues – periods, sexuality, reproductive rights, and queer identities – threaten heteronormative, patriarchal notions of the "correct" way for bodies to be and to behave. This leads to taboos and stigma against menstruating bodies, racialised bodies, and queer bodies. One of the students I interviewed reflected on how these intersecting issues played out in the education they had received in school:

[T]he sex education we received was through a religious organisation. So firstly, it was really, really heteronormative, and it was basically, don't do anything, and if you're gonna do anything don't tell anybody that you've done anything […] And then when it came to even like learning about female anatomy, my biology teacher was a man who was really uncomfortable teaching it to us, and I don't think, like, I don't think anybody knew how to talk about [periods] […] You couldn't just, like, openly say it, because there was still this kind of stigma around it. (BGP.6).

The interviewee's description of a culture of silence and omission around menstruation in school, and their linking of this with a "heteronormative" religious sex education, evokes the legacy of Section 28, the 1988 Conservative government policy which made it illegal for schools to allow discussion of LGBTQ+ identities in schools (Lee 2019). Although Section 28 was repealed in 2003, a culture hostile to LGBTQ+ issues and individuals persists in UK schools today, and new "don't say gay" laws for education continue to be pursued elsewhere, such as in the USA (Lee 2023, 2022). Open discussion and education on menstruation and reproductive health issues have never been criminalised in the way that LGBTQ+ education has. However, as Stubbs and Stirling (2020) argue, education on menstruation for school-aged girls[22] is still hampered by misogynistic stigmas about women's reproductive organs and genitals, which lead to poor body image in young girls and women, and internalised as well as societal aversion to open discussion of periods. The deficit noted by students in relation to formal education on menstruation and queerness (BGP.3, BGP.6, Podcast 5) implies that there is a similar "moral panic" (Lee 2023) around these issues, as both relate to unruly bodies which do not conform to patriarchal, heteronormative ideals (Wood 2020). The framing of menstrual inequity as intertwined with queerphobia, and with conservative attitudes to sex and sexuality in general, motivated BGP UEA to want to tackle these intersecting stigmas in a joined-up way. Intersectional framings were thus central in their advocacy work on reducing period poverty, challenging stigmas against menstruation, and raising awareness about gendered health issues such as endometriosis.

BGP's work on promoting and disseminating reusable period products was also framed in an intersectional way – although intersectional framings were less consistent in the group's work in this area than in other areas. Some participants framed reusable period products in explicitly feminist terms (BGP.1, BGP.6). The dominance of single-use pads and tampons in mainstream society was attributed to problematic perceptions of menstrual blood as something dirty and shameful, which must be concealed and dealt with as quickly as possible (BGP.1, BGP.6, Podcast 4, Wood 2020). Reusable period products were seen as a direct challenge to the misogynistic construction of menstrual blood as dirty, because they visiblise menstrual blood, and require the user to engage with it directly in the emptying and cleaning of products, instead of discarding it as quickly as possible. Using a period cup was therefore

---

[22] Menstruation is not something which only girls and women experience, as I discuss elsewhere in this chapter. However, I use the gendered terms "girls" and "women" here because that is how is how Stubbs and Stirling's study on body image and menstruation is framed (2020). Moreover, Stubbs and Stirling's use of gendered language reflects the fact that mainstream education on menstruation does tend to be highly gendered. Discussions about transgender and non-binary experiences of menstruation do not appear to have entered mainstream menstrual education.

seen as a feminist act. One interviewee described using the cup as "revolutionary" (BGP.1), thanks to how it had changed their relationship with their own body:

> [P]eople find periods, people find menstrual cups in particular really scary. And I wanna understand why. Um yeah, I think it's partially because of just being afraid of your own body [...] it's sad for me to understand that people find them so scary, because I just see so many advantages with them. Like, when I started using a menstrual cup, like, I'm lucky that for me [...] as soon as I started using a menstrual cup, I just found it like revolutionary. Um, and I was hoping more people could find the same. (BGP.1).

For this interviewee, promoting the use of period cups was not only motivated by environmental sustainability, but equally by wanting to help other people who menstruate to have similarly empowering experiences. Another interviewee highlighted the feminist significance of reusable menstrual products for allowing women and people who menstruate to take up space in society and challenge the misogynistic biases of the people around them. Reusable products need to be washed and dried, and in mixed gender households or other environments where patriarchal norms dominate, this simple everyday act is politically subversive:

> BGP.6: I have had people see me boil [my period cup] and be like, oh that's absolutely disgusting, don't you ever use that pan again [...] And I did explain, you know, it's boiled, I clean it afterwards, you know, it's perfectly fine [...]. But yeah, I just, I just think – and I have lived with all boys, I don't know if the same kind of pushback would come from females.
>
> Interviewer: Okay. So this was coming from men you were living with?
>
> BGP.6: Yeah. Yeah, this is very heterosexual men. Yeah, who, you know, are also all Northern Irish, so they're, their whole perception of periods is, oh dirty, stay away from that.

The experience described by this interviewee demonstrates how the vibilisation of menstruation that comes with cleaning a period cup puts one in the role which Ahmed (2023) describes as the "feminist killjoy". The feminist killjoy is subjected to backlash for the way that their challenging of misogyny, racism, and queerhobia disrupts social convention and causes discomfort. As Ahmed writes, embracing the killjoy role can be a source of countervailing power in oppressive patriarchal, white-supremacist and heterosexist systems (ibid). My own previous research has found that the expression of contentious environmental values produces similar dynamics for "environmental feminist killjoys" (Acheson 2018). The experience described above, which was echoed in another interviewee's experience of male backlash when disseminating reusable period products on campus (BGP.1), shows how action to prevent

waste can have significance in relation to other political struggles – leading to the "multidimensional approach to resistance" characteristic of an intersectional approach to waste, as described in Chapter 2.

The feminist framing of reusable menstrual products brings BGP UEA in line with a continuum of feminist menstrual activism in the USA and UK from the 1970s onwards, in which reusable period products played an important role (Bobel 2010). Interviewee BGP.6 mentioned that by encouraging male housemates to connect reusable period products with efforts to tackle the climate crisis, the housemates had later "come around a little bit", in terms of having a less misogynistic view of periods. Whilst the impact of this should not be overstated, it does provide some evidence that BGP UEA's intersectional framing of reusable period products at least has the potential to shift the dial on gendered oppression, while also promoting transformative ways of dealing with waste.

However, other framings of reusable period products in the case study reinforced misogynistic understandings of menstruation. In a talk on "Periods and the Environment", which was explicitly aimed at encouraging the uptake of reusable period products, the BGP UEA speaker seemed to anticipate a negative reaction from the audience when promoting the use of reusable pads:

> I know this might gross people out but just think about the money you save, think about the environment. Like genuinely, just think about it! [Laughs]. (Video 1).

In this statement, environmental and money-saving framings of reusable products are mobilised *against* potential feminist framings, instead of these multiple framings being brought together in an intersectional way. The idea that reusable period products are "gross", or less hygienic than disposable products, stems from the marketing strategies used by the FemCare industry in Europe and the USA since the mid-twentieth century, as Røstvik (2022) has extensively documented. Despite the fact that in interviews, members of BGP UEA displayed exclusively positive attitudes towards reusable period products, the speaker at this public-facing event evidently still felt that a radical framing of these products might not convince a wider audience. Financial benefits and tackling plastic pollution were therefore emphasized, instead of a feminist framing of reusable period products as a way of pushing back against oppressive ideologies. Furthermore, discussion of the environmental case for switching to reusable period products in the talk focused on the need to reduce visible plastic waste and greenhouse gas emissions (Video 1), but did not connect the environmental harms arising from the FemCare industry with the gendered and racialised health risks and social injustices of single-use tampons and pads and their resource-intensive supply chains. This was a missed opportunity to weave together an intersectional framing of the environmental justice case for reusable period products, which could have

164

addressed multiple axes of oppression including gendered oppression, caste, class, labour rights, race, and global justice (Mikulewicz et al. 2023). The speaker's decision to frame reusable period products solely in terms of reducing plastic waste and other quantitative environmental impacts, and saving money for the user, is an interesting departure from existing ecological feminist critiques of the FemCare industry, which have taken an intersectional approach by emphasising the twin ecological impacts and gendered health risks from dioxins, pesticides and other chemicals used in the manufacture of pads and tampons, as well as the lack of research into how these chemicals impact women and racialised minorities (Bobel 2010, Hait and Powers 2019, Scranton 2013).

This example aligns with one of the findings discussed in Chapter 4, that members of GWIs worry that intersectional framings will be off-putting to the wider public, and will undermine their efforts to promote waste-saving innovations. An additional dynamic at play here could of course be internalised misogynistic stigma, which remains a barrier to the promotion and dissemination of reusable period products as intersectional interventions which serve feminist, queer, and environmental goals. In addition, the lack of attention given to how the disposable period product lifecycle and the afterlives of disposable products impact marginalised woman and racialised workers elsewhere in the world (Vaughan 2020) suggests that the group has certain blind spots regarding intersectional global justice. Intersectional framings emerged more strongly in the group's work when considering how tackling period poverty was intertwined with challenging the patriarchal, queerphobic, and racist structures which stigmatise and belittle the health concerns and embodied experiences of people in marginalised bodies.

As we have just seen, intersectional framings are strikingly distinct in each case study. Taken together, the two cases reflect the diverse possibilities for GWIs using intersectional framings, depending on their context.

5.3. Intersectional project design in the case studies

In Chapter 4, I discussed a common problem for GWIs: the difficulty of translating intersectional framings, or a multidimensional analysis of harm, into the everyday work carried out by GWIs. Many innovators involved in running GWIs were highly aware of how waste problems are intertwined with oppressive structures including capitalism, patriarchy, white supremacy, ethno-nationalism and the like, but felt constrained in their ability to actively organise against these systems or speak about them too openly in the outward-facing work of the GWIs they were involved in, for a variety of reasons. These

findings suggest that GWIs face significant barriers to becoming agents of multifaceted resistance. However, some GWIs do succeed in designing projects in an intersectional way. The two cases discussed here both show evidence of intersectional project design. Again, they do so in notably different ways.

5.3.1. Project design in GBCT

Many of the projects taken on by GBCT's two waste-focused initiatives had a distinctly intersectional slant. These projects focused on contributing towards social justice for groups of people who have been marginalised under the same dominant systems which lead to environmental injustice and waste issues in Govanhill.

A notable example was the free reuse workshops offered as part of the Rags to Riches programme, known as "outreach workshops". These were provided to other community groups by members of the Rags to Riches team. In the workshops, people facing multiple intersecting struggles had the opportunity to learn a new skill and be creative, while accessing peer-to-peer support, discussing their needs and their rights, and developing a sense of self-esteem and political agency. This was particularly apparent in the workshops Rags to Riches provided for a grassroots group of women asylum seekers, and the "Women on the Mend" series of workshops for women facing challenges such as domestic violence and mental health struggles. One interviewee, who had previously volunteered in the "Women on the Mend" workshops, explained how activities such as sewing, crafting, and making new things from discarded materials helped to create a safe and comfortable atmosphere. This had the effect of facilitating conversations between marginalised women about sensitive issues, which might be difficult to speak about under different circumstances:

> I think that diversion of an activity made it easier for them, so it's not sitting in a room opposite somebody, - "so how are you feeling today? What's going on with your life?" […] [It] can be quite difficult for someone to open up. If you're actually busy making a tote bag, or one of the things they did was making footstools […] You know, you're creating a diversion in some ways to allow people to talk and maybe to then explore work that other people have done to address some of those challenges that they were facing. (GBCT.11).

The reflection of this interviewee resonates with feminist scholarship on crafting as a political act, which weaves together the materiality of care and embodied knowledges with world-making practices that recentre marginalised women, disabled individuals, and marginliased knowledges from outside of Western, patriarchal, rationalist traditions (Mudde 2022). The free reuse workshops, which gave priority to women facing various forms of marginalisation, also answer calls from critical circular economy

166

scholars to place a greater emphasis on reuse and repair as expressions of care and entanglements between diverse groups of people and the more-than-human world (Morrow and Davies 2021, Hobson 2020).

The politically generative role of reuse activities for women facing intersecting struggles was further expressed by an interviewee who was a founding member of a grassroots network for women asylum seekers and refugees. She outlined the many overlapping challenges the women in her network faced, including unfamiliar cultural mores, gendered expectations, language barriers, lack of local knowledge, racism, anti-migrant prejudice, and social isolation. These challenges compound and reinforce each other in the lives of female refugees in Britain (GBCT.2, Van der Boor et al. 2022.) The interviewee saw the role of her network as helping women to navigate these challenges, and learn about their rights and entitlements. She viewed the reuse workshops as a conduit for achieving this. She explained:

> The women, the asylum seeker, refugee, or immigrant, don't exercise their full rights here, because some don't know their rights. So because they don't know, they can't actually say, "I want to have this service because I'm entitled to it". So we try to inform them their rights; "in this issue you have rights, housing you have these rights, for NHS you have these rights". So whenever they are facing the issue […] [such as] school for children, being bullied, going something not right, we tell them you have these rights, you can go claim it. So yeah, we help them understand what they [can] do […] we have three sewing class, Monday, Tuesday, and Fridays, so women come here, talk, they're talking about their rights, they're learning new skills, and they share, they tell story, so, which really is good, to help them. (GBCT.2).

For the women who took part in the Rags to Riches reuse workshops, and who gathered regularly in the organisation's community space to use the sewing machines which had been gifted to the organisation by Rags to Riches, reuse activities were an opportunity to access vital information and support with navigating Britain's hostile institutional structures and the personal challenges of life as a refugee or asylum seeker. These perspectives on the outreach reuse workshops demonstrate how acts of reuse, repair, making and crafting with discards are not only useful for reducing waste and contributing to the development of a local circular economy. They are a source of multidimensional resistance against crushing supremacist systems.

The role of Rags to Riches in helping local people to find political empowerment came up in other contexts in the case study. Interviews with GBCT staff made clear that it was not only adult women, but also young people, who experienced the disempowering effects of racism, anti-migrant sentiment, poverty, and exclusion in the city. Helping young people to develop political agency in the face of these

intersecting challenges was a strong motivator for one GBCT staff member I interviewed (GBCT.14). They described an activity in which the young people were asked to come up with personal or activist slogans. The young people would draw the slogans on paper, and the Rags to Riches plastics facilitator would use the laser cutter in the plastics workshop to create stencils. The young people then chalk-sprayed their slogans around the local area. Slogans the interviewee remembered included "Black Lives Matter" and "Occupy! Occupy! Occupy!", along with the young people's names (GBCT.14). This tactic of political self-assertion, and the reclaiming of public space which is all too often enclosed at the expense of marginalised young people, is intertwined with resisting the systemic treatment of poor and non-white young people as disposable under racist, capitalist power structures (Katz 2010). An intersectional approach to waste therefore not only entails projects which work directly with discards, but also, projects which support a wider repertoire of tactics such as the ones discussed here (Taylor and Van Dyke 2004), to oppose the oppressive systems which discard certain groups of people as well as materials.

In the People's Pantry, staff and volunteers were conscious of the need to counteract the disempowering effects of being reliant on discarded food for subsistence. One of the ways they went about this was by making efforts to supplement the donations they received – which tended to be dominated by canned goods, bread and pastries, food close to its use-by date, and an overabundance of specific products such as yogurt – with a steady supply of fresh fruit and vegetables purchased twice-weekly from wholesalers (GBCT.1, GBCT.12, Fieldnotes). This was intended to ensure that members of the Pantry had access to nutritious and high-quality food options, as well as the dignity of choice. Furthermore, staff and volunteers placed significant emphasis on meeting the cultural and religious needs of a diverse membership base in the products they stocked, and avoided imposing hegemonic or culturally insensitive ideas about what a nutritious and sustainable diet should look like:

> [We are] also making sure that [the food] was culturally sensitive to the local area – so trying to find Halal meat, you know, we're not, we're not a vegan or vegetarian institution. That doesn't make sense in a working-class community. (GBCT.1).

In addition, the cultural, religious, and ethnic diversity of the People's Pantry membership was considered by interviewees to be one of the best things about it, and the Pantry was organised in a way which maximised opportunities for social mixing and connection (GBCT.12, GBCT.13, GBCT.17). From opportunities to talk and exchange banter while waiting outside the Pantry, to in-depth conversations between regular customers and those working on the shop floor, to a monthly soup kitchen outside the

168

pantry which brought people together to share a meal, food was viewed as something which could connect people from all walks of life, and generate cross-community solidarity (GBCT.12, GBCT.17, Fieldnotes).

The Pantry's sociable and community-centred approach to food provision also gave staff and volunteers an opportunity to engage with the needs of members on a personal level, in a way that would be difficult to achieve in a mainstream retail context. For instance, one volunteer described a conversation with a member of the pantry, a man who was recently widowed:

> I said, "Do you want some onions and carrots?" And he's like, "I wouldn't know what to do with them." I'm like, "pardon?" He says, "Oh, my wife's just died and I can't cook. And I'm like, "well, what would you like to be able to cook?" He says, "Listen, if I could make a soup, I'd be happy." So I gave him my very simple vegan red lentil soup recipe, four or five ingredients, 20 minutes, and it's foolproof. (GBCT.17).

This interaction highlights how the sociality of the People's Pantry allows for engagement with the intersecting identities and subsequent needs of the Pantry's members. In this case, gender, age, cultural background, and class are some of the axes which may interact to place the widowed Pantry member in a position of vulnerability, when it comes to being able to take care of his own nutritional needs after the death of his wife. Age and masculinity are underrepresented axes of vulnerability even within intersectionality research (Tarrant 2010, Hearn 2011). As a not-for-profit, rights-based, community food initiative, the People's Pantry was designed in such a way as to facilitate meeting a variety of specific and differentiated needs arising from multiple axes of vulnerability, in an area with high levels of food insecurity.

5.3.2. Project design in BGP UEA

BGP UEA's intersectional framings of period poverty and menstrual equity were reflected in the projects and activities they undertook as a student society. Alongside disseminating free period products and promoting the use of reusable alternatives to tampons and pads, members of the society also organised activities to tackle the stigma and taboos associated with menstruation. For example, in 2021 the society ran a workshop on "vulva origami", in which attendees watched a presentation about the anatomy of the vulva, and then took part in making a vulva out of paper. One interviewee connected this activity with resisting the internalised misogyny which leads to people with vulvas having a negative view of, and lack of knowledge about, their own bodies and the menstrual cycle. They described the activity as a source of pride for them on a personal level (BGP.3, Podcast 5). The interviewee also described how the

society used a "giant tampon" made of papier mâché and covered in red glitter to represent menstrual blood, to draw attention to the group's activities on campus and start conversations about periods:

> [T]he people that like, didn't menstruate would be a bit like, oh god, giant tampon, but that's like, you know, they'd get over it eventually. And we'd have to, it would need like three people to carry it. So we had to like lug it to the sports park and back for the freshers' fair, and obviously would get lots of looks. But people just kind of got over it in the end. (BGP.3).

This visually striking tactic, which shattered the menstrual taboo and forced non-menstruators to confront menstruation as a fact of life, can be seen as an act of feminist subversion against patriarchal power structures which seek to regulate and control "the leaky boundaries of the body" (Røstvik 2022: 53, Wood 2020). Bringing menstruation into public space is a way of transgressing the private and domestic sphere to which menstruation – and by extension, people who menstruate – have historically been confined. In this way, participants in the group made the feminist framing of their work publicly visible.

Another way that BGP UEA members aimed to disrupt and subvert bell hooks's concept of "white supremacist capitalist hetero-patriarhcy" (hooks 2003) was in challenging gender essentialist ideas about who can have periods, and who needs to know about periods. This algins closely with the focus within some branches of intersectionality theory on challenging identity-based oppression by showing the fluidity and socially constructed nature of the categories, such as gender, used to order society (McCall 2005, Walby et al. 2012). Interviewees recognised that much of the patriarchal stigma which leads to period poverty and a culture of shame around menstruation arises from its designation as exclusively a "women's issue", and the lack of education on periods for people gendered as boys and men (BGP.3, BGP.6, BGP.10, Podcast 1). Furthermore, they acknowledged that the strictly binary understanding of periods in mainstream culture means that the needs of transgender men and non-binary individuals who menstruate are overlooked (BGP.2, BGP.3, Podcast 5, Rydström 2020). Members of BGP UEA therefore intentionally designed their projects in a way which challenged the gender binary. One interviewee described how, when running stalls on campus to give away free reusable period products, they made a point of approaching everyone, not just people who visibly presented as women. And when putting up posters advertising free period cups, the interviewee described how:

> I even asked my guy friends to go into the men's bathrooms and put [the posters] up there as well, 'cause they should know too. And again, like, not every menstruator identifies as a woman, so the posters need to be in both bathrooms. (BGP.1).

The interviewee's determination to start conversations about period poverty in a way which collapsed the gender binary sometimes led to sexist backlash – for example being called a "feminazi" by male peers (BGP.1). As discussed earlier, this is an example of Ahmed's "feminist killjoy" dynamic (2023), this time showing the intersections between transgender liberation and menstrual justice as part of a shared feminist agenda. Other interactions the interviewee described were much more positive, for example a conversation with some teenage boys visiting the campus from a high school, whom the interviewee described having a very "mature" conversation with (BGP.1).

BGP UEA sometimes encountered tensions when the intersectional design of their projects on period equity clashed with more traditional understandings of menstruation as a women's issue. This was the case in an attempted collaboration with a local primary school, with whom BGP UEA had agreed to run an educational session on periods for Year 5 and 6 pupils. The school objected to the workshop being delivered to girls and boys together, and wanted the boys to be taken out of the session during discussion of how to use period products and how to avoid or deal with leaks and stains. The school also asked BGP UEA to remove a slide in their presentation which stated that "periods have no gender", arguing that this would be confusing for the children. Members of BGP UEA refused to compromise on these aspects of the workshop, because an anti-essentialist and trans-inclusive approach to period equity was considered fundamental to the aims of the group:

> So when I got this email, I was obviously quite annoyed […] the stuff about taking out the [slide about how] periods have no gender -- first of all, that was like a non-negotiable [thing] for me and the society as a whole […] And also the fact that they said it's going to confuse the children because they've learned about [periods] a week ago, I thought well, okay, they've only learned about it a week ago, how's that gonna confuse them? […] I don't want to sit here and just repeat the same thing I was told, when it's been a decade, and I'm trying to do work to progress this kind of idea around periods. So I was like, I just can't do that. There are two things, you know, taking the boys out [of the lesson] and taking out the periods have no gender slide, [these are] two things I will not, you know, waver on. (BGP.3).

As a result of this disagreement, the workshop in the school did not go ahead.

This incident may reflect a disconnect between universities as forward-thinking spaces, which are relatively quick to adopt progressive ideas such as gender-neutral toilets, and other areas of society, which lag behind in terms of adapting to the changing cultural landscape around issues of diversity and inclusion. This was the view expressed by three university and Students' Union staff members I interviewed, who had worked with BGP UEA. The staff members all described universities and student

171

communities as trailblazers for social progress, implying that the rest of society would eventually follow (BGP.5, BGP.9, BGP.10). However, the staff members' optimistic view that BGP UEA, and student groups like it, are simply ahead of their time, and that the rest of society eventually catches up, is problematised by Bobel's extensive overview of the history of Western menstrual activism, which makes clear that two contrasting camps have existed within the movement for decades: the "feminist spiritualists", who take a gender-essentialist approach to menstruation as a women's issue, and the "radical menstrual activists", who aim to dismantle the gender binary (Bobel 2010). Other scholarship suggests that the division between trans-inclusive feminism and "gender critical" feminism, which opposes the inclusion of transgender people in feminist spaces and feminist political agendas, is intensifying, particularly in Britain (Faye 2021, Morgan 2023). It is beyond the scope of this study to determine whether BGP UEA's commitment to intersectional, anti-essentialist project design represents an overall trend for the menstrual equity movement – though it is notable that the national organisation Bloody Good Period, which is highly influential in this space, places similar emphasis on transgender inclusion (Bloody Good Period 2024). What this incident demonstrates is that institutional pushback is another significant barrier for GWIs seeking to design projects in an intersectional way. In this instance, it was not a lack of capacity, resources, funding, or fear of alienating the public which prevented BGP UEA from running the workshop: it was the reticence of the local school, a prospective partner which ended up acting as a gatekeeper and preventing BGP UEA from carrying out the project.

These examples of intersectional project design in the two case studies underscore the importance of translating intersectional framings into action, and the many creative ways of doing this. Intersectional project design can create valuable opportunities for people to confront and resist the oppressive structures affecting them in their lives. In this way, GWIs can demonstrate a multidimensional approach to resisting intersecting oppressions. However, intersectional project design can also generate backlash when prospective partners do not agree with how this should be done, as was the case with BGP UEA's workshop for primary schools. This highlights the complexity of navigating relationships between GWIs and other groups and entities. The next section of this chapter will address the issue of relationship building, coalitions, and solidarity in more depth.

5.4. Coalition-building in the case studies

As discussed in Chapter 4, the ability of GWIs to organise in a proactively intersectional way is dependent to a large extent on their ability to form coalitions with other grassroots groups representing diverse political struggles, and to show meaningful solidarity with other groups facing different oppressions and challenges (Christoffersen 2021). A core challenge for GWIs is to show solidarity with diverse groups, while at the same time respecting differences and specificities, and acknowledging that there is no universal "we" when acting on waste (Liboiron and Lepawsky 2022: 97-123). Coalition building and expressions of solidarity are crucial aspects of "good relations" for intersectional GWIs, as discussed in the conceptual framework presented in Chapter 2. The case studies differ significantly in the extent to which they succeeded in building coalitions and showing solidarity across diverse struggles. Understanding the intricacies of these successes, shortcomings, and missed opportunities leads to important insights about what intersectionality means in practice for GWIs.

5.4.1. Coalition-building in GBCT

GBCT's ability to form coalitions with other grassroots groups representing many different struggles was one of its stand-out features as an organisation taking an intersectional approach to waste. Its position as a well-established community institution, with roots in the cross-community Save Our Pool campaign, had allowed it to develop and maintain connections with a wide range of groups over the years, representing Govanhill and Glasgow Southside residents from many different backgrounds (GBCT.1, GBCT.14, Downie 2021). According to a senior staff member who was active during the 2001 campaign, the unique positioning of the original Baths at the intersection of the diverse needs of many different identity groups laid the groundwork for successful coalition-based organising during the campaign to save the Baths from closure:

> We had to do quite a lot during the picket line and during those 141 days, to engage the community […] We attracted everyone, you know, we had to be childminders, 'cause all the kids were there all the time. And we, we ended up, you know, knowing a lot about the homelessness situation, because people came to keep warm around an open fire. We knew a lot about other closures that are happening locally, so on and so on. So, um, we developed a lot of skills that were able to meet some of the needs of that community, but we were also, I think, really conscious from day one that we had to make sure our campaign was as wide as possible […] That building [the Baths] serves a wonderful purpose, and it brought the community together, it was a place where you can socialise. It was a place like no other that provided integration, or sort of very gentle integration and socialising, in sort of ways that you don't get in

ordinary society. You know, if you see, if a gay man is sitting next to a Muslim man and Jewish man in the sauna, well, hello, you just have to negotiate that space. (GBCT.1).

The interviewee went on to describe how this foundation in broad, coalition-based organising and finding common ground in a highly diverse community had continued to be at the centre of the work of the organisation. GBCT placed a strong focus on using its position as a "beacon" in the community to support other, smaller groups campaigning and organising around multiple local issues, including tenants' rights, and campaigns against the closure of other public buildings (GBCT.1). Speaking about the racist scapegoating of the Roma for waste and other problems in the area, the interviewee stated that GBCT had supported Roma organisations with funding, and had worked with Roma organisations, alongside many other ethnic minority and migrant organisations, to run an Anti-Racism festival in May 2022, to "celebrate the contribution immigrants have made" (GBCT.1, Govanhill Baths Community Trust 2022, Brooks 2021). The festival took place before my fieldwork began, and time constraints unfortunately meant that I did not have the opportunity to speak with key stakeholders from other grassroots groups who had been involved. This means that my analysis is limited in terms of assessing the coalition-building processes and outcomes of the festival, and the extent to which the "intersectional alliances" mobilised during this time were fully equitable (Christoffersen 2021). However, I was fortunate enough to have the opportunity to attend and participate in another collaborative event in November 2022, the 'Our Rights, Our Stories, Our Communities' exhibition.

The exhibition was run as a partnership event between GBCT, a grassroots refugee and asylum seeker women's group, and a handful of other organisations supporting refugees and migrants in the city. The exhibition showcased the stories of refugee and asylum seeker women living in Glasgow. It featured hand-sewn items made by the women in Rags to Riches workshops, outfits made from recycled materials, self-portraits paired with text telling each artist's personal story (Figure 5.3.), and a film made by some of the women in collaboration with a local professional filmmaker (Fieldnotes). GBCT supported the exhibition and the grassroots groups running it by providing exhibition space, assisting with promotion, and hands-on assistance from a Rags to Riches staff member, who provided materials (mostly discards) to the women to use in their artwork, and worked with some of the women on their projects for the exhibition (Fieldnotes). Sharing material, cultural, and human resources in this way is a practical example of how different organisations can work together in coalition, to achieve collective political aims – in this case, uplifting the stories of refugee and asylum seeker women, and advocating for their rights in a racist, sexist, and xenophobic political climate (Edwards and McCarthy 2004).

Figure 5.3. Digital collage showing the self-portraits made by participants from the refugee and asylum seeker women's group, with a quote from one of the participants (anonymised here). These self-portraits were displayed as part of the "Our Rights, Our Stories, Our Communities" exhibition in November 2022. This digital collage has been taken from the summary report about the collaboration (Bayada et al. 2023).

The opening night of the exhibition was well-attended by members of the refugee and asylum seekers' group, collaborators from other local groups and the University of Glasgow, friends and family, and other guests from across the community. It was felt by all to be a big success (Fieldnotes). The days leading up to the exhibition opening had, however, come with challenges. Communicating across language barriers and cultural differences, and navigating different expectations among contributors to the exhibition, was a challenge for one of the GBCT staff members, Shelia, a facilitator with Rags to Riches who had worked with the refugee and asylum seeker women's groups on some of the outfits and sewing projects they were exhibiting. One contributor to the exhibition got into the habit of calling Shelia at inappropriate times, failing to meet at agreed upon times, and then turning up unannounced when Shelia was busy doing her other paid work:

> Shelia received several calls to her personal phone on a Monday evening from one of her workshop participants. The workshop participant also interrupted a R2R staff meeting due to a misunderstanding

about when Shelia was available to help her with her project. Blurring the boundaries between work and community. Shelia says she would never normally give her personal phone number to clients or workshop participants, but it "feels mean" to say no in the context of a free community workshop (Fieldnotes).

On the day the exhibition opened, the participant turned up with two unfinished outfits to display (recreations of traditional Eritrean dress made using plastic discards), instead of one, as Shelia had thought was the agreement. We spent an unplanned afternoon working with the participant to put the finishing touches together and display the outfits on mannequins before the exhibition opening. While everyone involved was happy with the end result, this incident demonstrates some of the everyday challenges of coalition-based organising. When staff members and volunteers who have formal roles in established organisations work with members of grassroots groups where roles and structures are less formalised, it may be inevitable that one group will need to adapt to the rhythms of the other. In this case, the limited English language abilities of the participant from the refugee women's group made it more difficult to communicate clear boundaries and agreements, and flexibility and personal time sacrifices were required on the part of the Rags to Riches staff member. It may be difficult to maintain clear boundaries between professional labour and mutual aid in this context, given that GWI staff members are simultaneously paid professionals, and members of the diverse communities they work with.

Coalition-building and solidarity-based organising were evident not only at the local level, but also at the level of international solidarity. In November 2021, the Rags to Riches team collaborated with representatives from La Minga Indígena, the caucus of Indigenous peoples from across the Americas who were attending COP26 in Glasgow to represent Indigenous people's struggles for sovereignty, civil rights, and justice in the face of the Climate and Ecological Emergency (Mundair 2021). Members of La Minga Indígena loaned traditional clothing to be displayed at a special event hosted by GBCT, in which the Indigenous women showcased the garments to members of the public, and explained how these garments are significant for Indigenous ways of life. Rags to Riches team members also shared stories with the Indigenous visitors about Scottish textile traditions, and gifted the visitors traditional tartan and woollen garments (GBCT.3, GBCT.11, Fieldnotes). A Rags to Riches staff member I interviewed said that:

[I]t wasn't just a nerdy textile talk, because each of these pieces in their, that they talked about in their clothing, gave an insight into their way of life and the, and also their protests that they've been [doing], and the difficulties their, um, people have had in their particular area in their countries […] so the impact of western society on their culture as described through their clothing, um, was just so fascinating. (GBCT.3).

The cross-border, intercultural solidarity formed through the collaboration with La Minga Indígena is highly significant in the context of intersectional climate justice, which requires the recognition of common cause between communities in the Global Minority world, and those on the frontline of extractive industries and climate change in the Global Majority world (Tokar 2019, Wretched of the Earth 2019). The struggles of Indigenous communities in bioregions such as the Amazon may differ in content from the struggles of underserved communities in Glasgow, but these struggles have common themes, which coalesce around corporate profits being prioritised over community welfare and ecological flourishing, and collective community resources – from the Amazonian natural resource commons to the original Govanhill Baths – being enclosed.

In these reflections on coalition-building and solidarity in GBCT, it is important to acknowledge that I did not have the opportunity to interview representatives from many of the other grassroots organisations referred to here, with the exception of one formal interview with a key organiser of the refugee and asylum seeker women's group who participated in the "Our Rights" exhibition, and informal conversations with other members of that group who also contributed to the exhibition (GBCT.2, Fieldnotes). This was due to time constraints, and a decision to focus on the specific daily activities of GBCT's waste prevention projects while I was there. Therefore, my analysis of GBCT's coalition-building is incomplete. It would also be problematic to make assumptions about how initiatives like the Anti-Racism festival and the collaboration with La Minga Indígena were experienced by all those who took part. The voices and agency of oppressed and marginalised groups themselves need to be at the centre of research which is anti-colonial and anti-racist, and research of this nature should be co-designed and co-produced, which mine unfortunately was not (Tuhiwai-Smith 2012, Liboiron 2021). This brief overview of GBCT's engagement in coalition building should therefore be read as no more than a starting point for further enquiry into how coalition-building is part of the organisation's approach to challenging dominant systems of discarding.

5.4.2. Coalition-building in BGP UEA

BGP UEA differs from GBCT in that almost all their activity took place within the context of a university. This meant that, while the group collaborated extensively with other groups representing different but intersecting political and social justice concerns, students were at the centre of their coalition-building efforts. There are strengths and weaknesses to this approach of building intersectional coalitions predominately within the student body. On the one hand, it is important to acknowledge that while the majority of students tend to have a shared social location in terms of age and education, there is considerable diversity within the student population, and students have vastly different needs, perspectives, and political subjectivities depending on their other intersecting identities, including race, disability, nationality and visa status, class background, sexuality and gender identity. BGP UEA had made significant efforts to work alongside other student groups representing these diverse experiences, and these collaborations had helped them to design their work on period equity in an inclusive way. One example of this can been seen in a collaborative radio show between BGP UEA and the Queer Sex Education Show, a radio show run by members of the student LGBTQIA+ community. One of the hosts explained that they felt BGP UEA had showed meaningful solidarity with the queer and trans community in the design of their work on menstrual equity:

> I've gotta say, as a non-binary person, the whole concept of doing a menstrual health thing is a little bit like oh, ok, is this gonna be lots of, you know, pink, and all "yay let's go girls", kind of energy. And I've gotta say, I've been really impressed […] at just how inclusive the language is ("Queer Sex Education" radio show host, Podcast 5).

Another significant example of BGP UEA's coalition work on campus was their collaboration with Students for Global Health (SfGH), a student society which provided education, campaigning, fundraising, and volunteering opportunities for students interested in combatting global health inequities (Fieldnotes, BGP.7, BGP.8). At the time of my fieldwork, the society oriented itself towards achieving racial and economic justice within the healthcare sector. The SfGH webpage on the Students' Union website declared:

> Living through a pandemic whilst watching racial prejudice continue to be rampant around the globe makes this society more vital than ever to **educate and inspire students to be the change they want to see in the world.** (Students for Global Health UEA webpage, recorded in fieldnotes, March 2023. Original emphasis).

Against this backdrop, students in SfGH organised a range of events and peer-led "short courses", on issues at the intersection of race, class, gender, and health justice (Fieldnotes). BGP was invited to

participate in a short course on women's and reproductive health, alongside the Obstetrics and Gynaecology Society, Coppafeel [breast cancer awareness] Society, and a representative from an NGO supporting youth community leadership in Africa, Asia, Europe, and North America. Each group prepared a session for the course attendees, from an in-depth discussion of barriers to healthcare for women in the Global Majority, to a debate on class and gender as predictors of poor health outcomes. BGP UEA's contribution to the course, to which I contributed (see Chapter 3), featured a presentation on period poverty followed by a brainstorming exercise on what having a period would look like in an ideal world, and what would need to change in order to get there (Fieldnotes). Attendees of the course were then told about the free period cup scheme being administered by the Students' Union, and were given a QR code to the online form to sign up to receive a period cup. After the course on Women's and Reproductive Health, a Student's Union staff member noted there was a substantial increase in people signing up to receive a free period cup (BGP.9). This demonstrates how active coalition-building with other groups, and contributing to their work on other issues concerning racial, economic, and health inequality globally and in Britain, has positive reverberations for GWIs wishing to spread waste-prevention innovations to a wider audience.

These examples indicate that BGP UEA was practicing active coalition-building and solidarity within the student body. However, evidence of coalition-building *beyond* the university was more limited. This was not for lack of good intentions in this regard. Members of BGP UEA expressed particular interest in supporting equitable access to period products for refugees and asylum seekers, and recognised that the menstruation needs of these groups are often overlooked (BGP.3, BGP.2, Hawkey et al. 2020). The society organised two initiatives to address the experience of refugee menstruators: a collection drive to deliver period products to a local charity which supports refugees, and a fundraising exercise for the national charity Bloody Good Period, which they referred to as a "refugee ration challenge". For this fundraiser, five members of BGP UEA were sponsored to spend a week eating the equivalent amount of food provided to a Syrian refugee living in a refugee camp (BGP.3). One of the students who took part in the fundraising acknowledged that the "refugee ration challenge" is problematic, due to the power dynamics of non-refugees choosing to temporarily adopt what they perceive as an aspect of a refugee's reality, which they can then revert from at any time. The student explained:

> I kind of did like a reflective thing on our Instagram afterwards where I was like […] I don't just want to kind of, tomorrow when I can eat my normal food again, and eat however much I want, I don't just want to kind of forget about this […] [It] made me a whole lot more grateful, but also kind of think ok, yes, I can go back to eating like normal tomorrow, but that is not the reality for refugees […] But whilst that is like a

controversial thing, and people [were] saying, like, should you be doing it, I think for me personally, it was a good challenge in terms of like opening my eyes to all of that, and kind of, you know, like kind of put yourself in their shoes, even though you're not in their shoes, but like just in the smallest way, trying to put yourself in their shoes (BGP.3).

This philanthropic exercise is notable in that it does not involve collaboration, consultation, or co-production with the communities it is trying to help. BGP UEA's refugee ration challenge centres the experience of non-refugees and what they gained from the exercise, rather than refugees themselves. In this way, it is reminiscent of "white saviourism", a dynamic in which white, usually Western actors and institutions perform humanitarian care for racialised others, attending to – in the words of Teju Cole – their own "sentimental needs", while reinforcing the hegemonic and exceptionalist position of Whiteness (Cole 2012). Under the white saviour model, philanthropic and humanitarian acts are performed without critical attentiveness to the white supremacist power structures which underpin global injustices (Jefferess 2023, Anderson et al. 2021). In the case of the refugee ration challenge, the voluntary and temporary adoption of a restricted diet had the effect of reaffirming the privilege of the subjects who took part, and reinscribing the racialised "otherness" of the (imagined) objects of the philanthropic performance.

The lack of effective coalition-building outside of the university indicates a limitation of BGP UEA as a grassroots group attempting to take an intersectional approach to menstrual equity. However, it is important to keep in mind the group's specificity as a student society. As a group of volunteers balancing grassroots organising alongside work and studies, and with a high turnover of leadership and membership due to the limited timeframe of university degrees, the group was constrained in terms of time, resources, and capacity. It did not have the same longevity, established position within the community, and consistency of core membership which benefited GBCT in terms of being able to build strong coalitions with a variety of other grassroots groups, with whom they could co-produce strategies for progressive change. Taking these constraints into account, it could be argued that although the "refugee ration challenge" is not a strong example of effective intersectional coalition-building, it does show a willingness to engage with struggles not shared by the core organisers of BGP UEA, and an understanding that the inequities which result from having a menstruating body cut across multiple subject positions and identities; bringing people with very different experiences of privilege and oppression into common cause with each other. Furthermore, the interviewee's reflections on social media about the problematic aspects of the challenge show a willingness to be transparent and

accountable – important principles for meaningful solidarity and good relations in the creation of new systems (Liboiron and Lepawsky 2022).

Finally, another dynamic which complicates the picture of coalition-building and solidarity for BGP UEA was the group's lack of engagement with the university cleaning staff. Following the success of their campaign to make the university take over responsibility for providing free period products in toilets across campus, this responsibility was given to the Estates Division, and became part of the daily duties of the university cleaning staff, who were responsible for monitoring and replenishing stocks of period products. In an interview with two members of cleaning staff, I asked about the level of contact they had had with BGP UEA:

> Interviewer: I was wondering if either of you have had any communication with any of the students? Or not so much?
>
> BGP.12: No. Nothing.
>
> BP.11: No. Relating to this matter, no. No communication or – well, we were not even asked actually […] But, it was just one more thing they ask us to do, which was fine. No-one had nothing to say about it. We just get on with it.

In spite of the lack of consultation with them, the staff members I interviewed were resoundingly positive about the free period products scheme, and noted that staff would also benefit from period products being freely available on campus (BGP.12) – a point not raised by any of the students I interviewed. Whilst the lack of active coalition-building with the cleaning staff was therefore not a barrier to the success of BGP UEA's work, and nor did it seem to have generated bad feeling between these groups, it is nonetheless a missed opportunity to develop more active solidarity between students and working-class cleaners, taking menstrual equity to be an intersecting concern affecting both these groups. This reflects observations made by Anantharaman (2014, 2022) that acts of sustainable consumption among privileged social groups often rely on invisible working-class labour, in a dynamic which reinforces social hierarchies instead of challenging them. BGP UEA's lack of coalition-building and active solidarity beyond the student body – even with a group as close-to-home as the cleaning staff at the same university – is therefore a significant blind spot.

Comparing these examples from the two case studies shows the importance of longevity when it comes to building effective coalitions. Becoming deeply familiar with a variety of other groups and movements outside one's immediate experience, and establishing trust across groups with diverse values and

priorities, takes time. This was something that GBCT showed much greater evidence of, reflecting over twenty years of experience in locally embedded community organising. Whereas, BGP UEA was a transient student society whose core members were active for a maximum of two or three years before graduating and moving on – making it difficult for the group to move beyond tokenistic forms of philanthropy and towards deeper solidarity. As discussed in Section 5.3.2., BGP UEA had put considerable work into establishing a relationship with a local primary school, but the collaboration stalled over their clashing positions on challenging gender essentialism. I was told by a member of BGP UEA during my fieldwork that they hoped to reach a compromise with the school and proceed with the collaborative project in future (BGP.2), but at the time of writing this does not appear to have happened, and BGP UEA is no longer active. A nascent coalition between BGP UEA and the local school was therefore unable to fully get off the ground.

5.5. Discussion

In this chapter, I have discussed two markedly different examples of GWIs which take an intersectional approach in their work to prevent waste. The findings presented here address the second research question of this thesis:

RQ2: What does intersectional organising look like in grassroots waste innovations?

Table 5.1. summarises the diverse ways that intersectionality showed up in the case studies, spanning framings, project design, and coalition-building, as well as some of the instances where the case studies struggled to organise in an intersectional way for various reasons.

	Govanhill Baths Community Trust	**Bloody Good Period UEA**
Framings	Waste problems framed as inextricably linked to poverty, class inequality, environmental injustice, racism, and anti-migrant sentiment. Some participants were self-reflexive about how their own work may be inadvertently reinforcing oppressive systems, e.g. concerns that The People's Pantry reinforced association of working-class people with waste, and the unjust dynamic of food waste being offloaded from supermarkets onto communities: a dynamic of neo-colonialism, which disproportionately impacts working class / migrant women.	Menstrual inequity framed as arising from misogyny, racism, queerphobia, and the minimisation of women and gender minorities' pain. Bodies deemed to be "deviant" from the white, cisgender male, heteronormative ideal are stigmatised and face erasure in institutional settings, including healthcare and education. Reusable period products were sometimes framed as politically radical because they challenge patriarchal ideologies. However, intersectional framings were not used consistently, and sometimes framings of reusable period products reinforced oppressive ideologies.
Project design	Free reuse workshops for women experiencing multiple forms of marginalisation (e.g. gendered violence, mental health challenges, poverty, refugee and asylum seeker status) provide a safe setting in which to access support and mutual aid. The People's Pantry is designed to facilitate interaction and social mixing among the members and volunteers, providing an opportunity for people	Activities were organised to tackle misogynistic stigmas against menstruating bodies, e.g. vulva origami, and the use of the eye-catching "giant tampon" at public events. The group challenged trans-exclusionary ideas about menstruation by distributing period products in men's and gender-neutral toilets. Educational materials were designed to state that "periods have no gender", leading to a disagreement with a local school the group had planned to work with.

	experiencing multiple vulnerabilities to be less isolated.	
Coalition building	Strong partnerships with other grassroots groups working in different areas of social justice, leading to shared projects, e.g. the "Our Rights, Our Stories, Our Communities" exhibition with local refugee women's group, and hosting representatives from La Minga Indígena during COP26. Coalition work sometimes leads to communication challenges, and requires patience and flexibility.	The group built effective coalitions with other student groups working across global health and queer issues. However, effective coalition building beyond the university was limited, leading to a philanthropic rather than solidarity-based approach. The group did not have sufficient longevity to strengthen difficult relationships and compromise over conflicting values, e.g. with the local primary school. Opportunities to work in coalition with other interest groups within the university, e.g. cleaning and estates staff, were missed.

Table 5.1. Features of intersectionality in the case studies.

Having compared the two cases, I will now relate them to the conceptual framework discussed in chapter 2. First of all, both case studies showed evidence of a multidimensional analysis of harm, in the way that they framed waste in relation to multiple axes of power and oppression – although there were inconsistencies in the extent to which all participants did so in each case, suggesting that deeply entrenched mainstream beliefs can still lurk behind more radical framings (e.g. waste is a matter of personal responsibility, menstrual blood is "gross"). The ways that each case study displayed a multidimensional analysis of harm were informed by the unique social, historical, and political context they operated within, and the diverse experiences and perspectives of participants. This speaks to McKinzie and Richard's "context-driven intersectionality" (2019), and also the drive within discard studies to reject universalism in analysing the multidimensional harms of waste (Liboiron and Lepawsky 2022). In addition, participants' embodied and lived experiences – of being at the sharp end of various oppressive systems, and / or mobilising to resist the oppressive systems which treat certain communities as disposable – also shaped the ways that participants approached intersectionality in the

184

two case studies. This speaks to the work of intersectionality theorists who ground their analysis in understanding the experiences of individuals and communities at marginalized social locations (Crenshaw 1989, Atewologun and Mahalingam 2018), and discard studies theorists who investigate the dynamics of "people as waste" (Moore 2020, Reno 2015). Intersectional framings also show up in participants' ability to turn an intersectional lens inward upon their own work, and how it is situated in relation to wider systems, structures, and institutions. This means being self-reflexive and self-critical where relevant, in addition to being capable of intersectional critique of external structures.

Secondly, both groups took a multidimensional approach to resistance in the way that they designed their projects, and the steps they took towards building coalitions across multiple distinct but interconnected struggles. Again, this looked different in each case, but analysis of both cases shows that intersectional concerns around (for example) gender equality, racial justice, migrant justice, and LGBTQ+ liberation dovetailed with each group's actions to respond to waste and consumption-related challenges. This led to the design of projects which were at turns subversive of dominant oppressive structures (e.g. BGP UEA's "vulva origami") and centred around creating an empowering space for people who were multiply marginalised (e.g. GBCT's free reuse workshops with women refugees and asylum seekers). In the case of GBCT, intersectional project design involved co-production with other grassroots groups representing people directly affected by multiple marginalisations. This co-productive approach has been emphasised in discard studies scholarship as vitally important for the development of socially just responses to waste-related challenges (Liboiron and Cotter 2023, Liboiron 2021). In the case of BGP UEA, the group's staunch commitment to carrying out their work in an intersectional way (by rejecting gender essentialism and being trans-inclusive) generated tension with a local primary school with whom they had planned a collaboration, showing that intersectional project design is often not a seamless or widely welcomed process.

Thirdly, the case study groups showed different levels of focus on good relations, through the extent to which they engaged in coalition building. GBCT was in a stronger position to build active coalitions with other grassroots groups facing diverse struggles, as was evidenced through collaborative events such as the "Our Rights, Our Stories, Our Communities" exhibition, and their show of solidarity with La Minga Indígena during COP26. Their working relationships with other groups in the local community reflect what Christoffersen (2021a) describes as "intersectional alliances" (582) between groups, where no contributing group attempts to reduce or supersede the aims of the others. For instance, in the "Our

Rights" exhibition, the issue of waste was not centred in the exhibition, even though many of the exhibits on display had been made from repurposed discards during workshops facilitated by Rags to Riches. In this way, GBCT appeared to avoid the risk of taking a tokenistic approach to intersectionality discussed in Chapter 4. This offers a wider reflection which may be important to for community sustainability projects seeking to establish meaningful relationships with diverse groups: sometimes concepts of "environmental sustainability" (as it is commonly understood among environmental groups in the Global Minority) will take a back seat, allowing other salient community interests to come to the fore. In addition, in GBCT's work to foster effective coalitions, flexibility and adaptation to different expectations and communication barriers were important; an insight which could also be beneficial for GWIs struggling to work with more diverse collectives of people (Anantharaman et al. 2019).

More work needs to be done to explore relations between the case study groups and wider networks and other interconnected grassroots organisations. Nevertheless, from these findings, GBCT showed clear evidence of having built strong relationships over time with a wide array of groups facing interconnected but distinct struggles (Bohrer 2019). This was something BGP UEA showed less evidence of. Whilst they did take steps to build strong relationships with other student groups working on related issues of gender, health, and racial equity and LGBTQ+ rights, they also missed opportunities to establish good relations with other groups outside of the student sphere, resulting in a philanthropic rather than solidarity-based, co-productive approach (e.g. with refugee networks). BGP UEA faced inevitable constraints in this regard due to the transient nature of student organising, and the difficulty of becoming embedded in local communities and gaining trust over time. However, they also missed opportunities to build coalition closer to home within the university itself, for example with the cleaning staff, whose work was integral to achieving the aims of BGP UEA, but whom none of the students acknowledged (Vergès 2021). Overall, the contrasting examples from the two case studies demonstrate that longevity and building trust over time are key to successful coalition-building and the development of strong solidarity.

The fourth part of my conceptual framework, a focus on rejecting essentialism, will be addressed in depth in Chapter 6, but the findings discussed here show that this was a central theme for both case studies. Both groups challenged narrow categorisations used to order social life; from the gender essentialism which insists that only cisgender women menstruate, to the racist scapegoating of the Roma population for waste problems in Govanhill. In Chapter 6, I will discuss how both groups challenged dominant systems of classification and removal, which uphold not only dominant systems of

discarding, but also exclusionary and oppressive ideas about who does and does not belong in a given system.

This chapter has provided further critical depth to the study of intersectional organising in GWIs, elaborating on some of the diverse ways that framings, project design, and coalition-building are practiced in two cases. The novel insights gained from this study further illuminate the possibilities offered by GWIs as intersectional routes for tackling the multifaceted social and environmental crises of modern waste – as well as underscoring that there is no one-size-fits all way of approaching intersectionality, just as there are no universally applicable solutions to the waste crisis (Liboiron and Lepawsky 2022). Whilst the case studies did not consistently organise in an intersectional way or take up every opportunity to address injustice or build strong relationships with groups facing different intersections of power and privilege, the findings demonstrate that intersectionality is never an all-or-nothing matter. A lack of engagement with some intersections does not invalidate successful intersectional organising in other ways.

In this chapter and in Chapter 4, I have focused primarily on the everyday practices and processes used by GWIs, and their ability to show multifaceted analysis of harm, to engage in multifaceted resistance against interconnected oppressions, and to practice good relations through coalition-building and expressions of solidarity. More attention now needs to be given to how GWIs engage with waste itself, reject essentialism, and how intersectional GWIs can be instrumental in forging new systems for discarding well, working with and through discards and systems of discarding. This will be the focus of the next chapter.

Chapter 6: Intersectional GWIs and New Systems for Discarding Well

In this chapter, I will investigate how intersectional GWIs can contribute to the development of new systems of discarding, which *discard well* instead of discarding harmfully. Following an important line of thought within discard studies, this chapter rejects assumptions that discarding is inherently a morally debasing process, and that waste as an entity can and should be eliminated (Hawkins 2006, Liboiron and Lepawsky 2022). Instead, following Liboiron and Lepawsky (2022), this chapter starts from the premise that waste is always reflective of power, and that "differently organised systems are needed to fundamentally alter discarding and [its] power relations" (127). From this proposition, Liboiron and Lepawsky develop the concept of *discarding well* (ibid). This thesis is directly concerned with whether and in what ways GWIs can be agents of change, shaping new systems for discarding well, and subverting oppressive power relations across multiple intersecting axes in doing so. I argue that GWIs which take an intersectional approach to waste, such as the two case studies discussed in the previous chapter, are in a strong position to do this. This chapter addresses the third and final research question:

RQ3: How do intersectional grassroots waste innovations help shape new systems for discarding well?

Drawing on insights from the two case studies, GBCT and BGP UEA, I argue, firstly, that intersectional GWIs reveal transformative ways of living with and through waste, emphasising care, creativity, and conviviality. Secondly, I argue that they resist dominant modes of classification and removal, and instead embrace deviation as a foundation for justice. In these ways, intersectional GWIs make strong contributions to new systems for discarding well. However, I also explore how these strategies for discarding well are incomplete, and raise issues of incommensurability in the creation of new systems of discarding, and necessitate further and future interventions.

6.1. Transformative ways of living with and through waste

In both case studies, participants adopted ways of working and living with waste which transcended the dichotomy of waste as either a threat to be feared, or an economic resource to be re-commodified (Moore 2012, Lane 2011). In this way, they push beyond dominant framings of waste in both established philosophical perspectives which position waste as purely symbolic and relational (Douglas 1966, Reno

2015), and policy and business approaches which view waste as a source of commercial value under circular economy frameworks (Levidow and Raman 2019, Hobson 2021). Instead, participants in the case studies adopted techniques of wasting or using waste which foregrounded new "person-thing relations" (Hawkins 2006: 119) through care, creativity, and conviviality; bringing them in line with emerging thought in discard studies about how to live with and through the waste which accrues in the systems in which we are embedded (Lau 2023, Murphy 2017). These techniques can be considered transformative in the face of multiple oppressive systems, as I will explore below.

6.1.1. Caring for waste, community, and the self

Alternative techniques of wasting and of living with, within, and through waste emerged as strong expressions of care in the case studies. In the case of GBCT, care for – or stewardship of – discards (Lau 2023) was a conduit for collective community care in the face of the many adversities affecting the Govanhill community. Reflecting on why GBCT had started the Rags to Riches initiative, one volunteer commented on how this interest in reuse was intertwined with the organisation's mission to save the original swimming pool from closure and disposal:

> I don't know whether it's something around the fact that you're trying to retain a building that has still got
> life in it, whether then it can be transferred to the, well, there's other things that we can reuse, we can
> retain, we can make better use of. [I don't know] whether that's where this environmental thread came
> through, and the sustainability thread came through, but I think that's really strong now in the
> [organisation]. (GBCT.11).

Advocating for the value of things which have been deemed value-less under dominant economic systems and development agendas was clearly a strong theme in the work of GBCT. During the original "Save Our Pool" campaign, activists had occupied the building, quite literally inhabiting and making life within and through a discard designated for disposal, and subverting assumptions about the building's economic redundancy or symbolic unsavoriness (Alderslowe and Adair 2022). This speaks to the notion of "third nature", and how discards from human-made systems actively construct new environments and ways of living (Akuoko et al. 2023). It follows that this ethos of honoring things which have "still got life" in them has extended to the discarded textiles, wood, and plastic used by Rags to Riches in their not-for-profit remaking and upcycling activities.

Furthermore, the practice of rescuing and reusing discards reverberated in making people feel personally empowered, and reinforced a sense of pride in the self and the community. This is evident in

189

the following statement from an interviewee from a refugee women's network, who discussed the jewelry she had made in collaboration with Rags to Riches:

> Imagine me wearing this, who will know it's coming from the lid of milk? Yeah, I don't care, it made me beautiful, and I feel, you know, proud that I'm impacting the earth, I'm making [a] positive impact […]. So it's what we want everyone to feel, wearing this is, you are not cheap, actually you are expensive, because this is expensive, it's expensive to make, how you see the time spent making it, collecting it, it's so expensive. (GBCT.2).

The interviewee's framing of upcycled discards as "expensive" in terms of the time and care invested in transforming them, rather than the exchange value of these discards, challenges capitalist ideologies of value. This perspective suggests an alternative system of valuation, in which the worth of things and of people is judged on their moral qualities. Specifically, the willingness to invest time and care into practices of reuse, and to demonstrate care for ecological sustainability in doing so, are what gives one a sense of personal value. This follows Hawkins's theorising on ecologically sustainable waste engagements as establishing a moral sense of self (2006: 32). It is especially significant in the context of hostile immigration systems, where the value of human beings is reduced to the extent to which they contribute to the growth-oriented economy, hence the punitive system of sorting between "skilled" and "unskilled" workers, and minimum income thresholds for migrants. Expressions of care through reuse practices are therefore not only political interventions against the "dump regimes" which erode people's intimate knowledge of materials (Reno 2015: 564): they are also intersectional sources of power against multiple oppressive systems. Another participant from the refugee women's group, who made an apron from discarded textiles in a Rags to Riches workshop, provided the following statement, which was displayed alongside the apron in the "Our Rights, Our Stories, Our Communities" exhibition:

> I learnt how to sew. I completed this apron and it makes me feel confident I will be able to make another outfit. Every woman must be confident. And I am keen to support other women to build their confidence, not only in the sewing field but in all aspects of life. (Exhibition contributor, quoted in fieldnotes).

Creatively repurposing discards was thus instrumental in fostering a sense of self-confidence, and preparedness for life's other challenges. This demonstrates some of the unquantifiable social benefits of circular economy practices at the community level. The perspectives shared by Rags to Riches participants answer calls in critical circular economy scholarship to extend the lens beyond a purely economic, growth-oriented framing of the circular economy, and to instead engage more deeply with the new social-material relationships developed through practices of reuse and repair (Hobson 2020,

Hobson and Lynch 2016), and the possibilities for a circular economy predicated on degrowth and social wellbeing (Savini 2023).

Figure 6.1. A participant in Rags to Riches workshops, with two outfits created from discards (e.g. plastic bags).

In the case of BGP UEA, consideration of transformative ways of living with and through waste needs to begin with recognising that menstrual blood is itself a discard. Furthermore, the ways that people experience their period – including the products they use and how menstruation is discussed or concealed – constitute systems of discarding. This is a rather novel perspective on menstruation and menstrual equity, but it is important for understanding how the work of a grassroots group like BGP UEA contributes to shaping new systems for discarding well.[23] Although participants in the BGP UEA study did not explicitly frame menstruation as a system of discarding – and when waste was explicitly

---

[23] It is uncommon for critical waste literature to address menstrual blood as waste, but one exception is a study by Vaughan (2020), who discusses menstrual blood as "gendered waste" (6).

discussed, this was solely in relation to the need to reduce problematic single-use period product waste (see Chapter 5) – on a number of occasions participants showed a commitment to changing menstrual practices as a way of expressing care for the self and cultivating good relations with the body. This can be interpreted as a transformative approach to living with and through waste. One interviewee, when discussing the benefits of using a reusable period cup to collect menstrual blood for disposal, explained how this differed from the now-conventional method of using disposable pads and tampons which can be quickly thrown away and do not require any close engagement with the materiality of blood:

> It's actually good to be confronted with you know, okay, how much am I bleeding? Like are there any, like is there any clotting or anything? Like it's good to know what's going on with your body. So it's actually good to use those kind of things, where […] you're actually confronted with like the blood, you know, it's not just kind of hidden away and shoved in a bin. (BGP.3).

The perspective of this interviewee shows how the practice of using a period cup is not only a positive environmental innovation which prevents plastic waste. It is also a technology which facilitates a different system of discarding – one which subverts the patriarchal stigma against menstruating bodies which manifests in the "concealment imperative" (Wood 2020). Disposal of menstrual blood using a period cup facilitates what Bobel (2010: 81) terms "body literacy", by helping the user gain an intimate understanding of their hormonal and physical bodily processes. Reusable period products can thus be understood as shaping feminist disposal systems.

It may be tempting to view this perspective on reusable period products as a novel example of a phenomenon discussed in Hawkins's *The Ethics of Waste* (2006) in relation to composting as an ethical practice, in which the author writes: "the care and attention involved in managing a compost pile turn disgust at decay into pleasure at renewal" (119). However, most participants in the BGP UEA case study stopped short of associating menstruation with pleasure and renewal, even when they discussed the positive impacts of caring for the body through alternative practices such as using a period cup. The majority continued to view menstruation as a fundamentally undesirable process. Only one participant felt that having a period was desirable given that it can serve as an indicator of health and vitality. The following exchange between two interviewees shows the anomalous nature of this more positive perspective on periods:

> BGP.8: I personally have a bit of a weird kind of relationship with my own periods and my […] menstrual cycle, because, well, I have a medical condition, I have irregular periods. So in my ideal world, which I feel is quite different to a lot of people, I would ideally have a period every month. I would ideally have a

regular period at the same time each month, because that tells me that I'm doing well, that I'm doing healthily.

BGP.7: Yeah, see I'm the opposite, I'm like, "no periods." Yeah. Like I just completely agree with you on the thing, you know, when you have one every month, stuff's working. It's a healthy thing to have. But yeah, I just think the pain that goes along with it, and those days are, I just, like, I just dread those days every month. So I'm just like, yeah, I'd just rather not have one.

What is specific and unique about menstruation as a process of discarding – differentiating it from the discarding of objects such as plastic, textiles and food waste – is its highly embodied nature, and the way that it is intertwined with personal health, discomfort and pain. Therefore, while menstruation is for some people a sign of vitality and bodily care (as in, the body taking care of itself, as well as the practices involved in caring for the menstruating body), for others, it is a marker of a highly unjust system, where patriarchal bias in the medical profession, education, and workplaces results in a situation where "women have always just had to put up with pain" (BGP.4). This points to the limitations of individual and grassroots practices to transform the way menstrual blood is discarded. Whilst they may have a great deal of potential to empower people against oppressive systems, they do not scale directly to negating these broader structural conditions (Liboiron and Lepawsky 2022).

6.1.2. Conviviality, or discarding as social ritual

Transformative practices of living with and through discards also lead to the creation of new social relations and rituals. This includes relations between human and more-than-human materials, as discussed above, and also new opportunities for solidarity and conviviality in community. The theme of connectedness and sisterhood was discussed by several participants in relation to the activities undertaken in the Rags to Riches workshops in the GBCT case study. One staff member, who facilitated textiles reuse workshops with a refugee women's group, explained how the workshops had facilitated strong social bonds which cut across differences in nationality, language, ethnicity, citizenship status, and life experience:

I suppose it is that that sense of connectedness, that sense of support really […] And with [the refugee women's group] particularly, they are very much organised in that that way, and it's, you know, they are, they're the matriarchs, I feel like, and they're looking out for their sisters and they refer to each other as

sisters too, so that's really, that's really a strong feeling that you get from them, and I feel like I'm an invited

sister into their group really, which just feels really beautiful, feels really empowering (GBCT.3).

The gendering of this sense of conviviality and social bonding through reuse was noticeable. The majority of interviewees and participants in the GBCT case study were women. Interviewees noted how the sense of "sisterhood" they gained from the reuse workshops extended not only to other women in the here and now, but also made them feel part of a continuum with women of the past, particularly the weavers and dressmakers of working-class history in Scotland (GBCT.3, GBCT.4). Whilst participants felt that being part of this tradition was something to be celebrated as a sign of women's agency, solidarity, and resilience, they also had mixed feelings about the continuation or revival of traditional gender roles in contemporary reuse innovations. One volunteer was wholeheartedly positive about the gendering of textile reuse in particular, stating:

> You do think about the crofters[24] and people in the past, and how they would have worked in groups,
> and it did tend to be that they did the same thing, it was gendered, the men did specific tasks
> and the women did others, and worked together in that way, and I think it's quite nice, actually,
> it's sort of, you know, it's a separation and then a coming together (GBCT.4).

This rather romanticised view of Scotland's rural past in framing contemporary reuse practices in urban environments can be contrasted with the reflections of one of the staff members. They felt more conflicted about the implications of cultivating a gendered form of conviviality through reuse work:

> [T]here's things, like, to be celebrated about it, about women coming together […] But also it's like, I'm
> not into the idea that it's like, there's a role for a man and there's a role for a woman. That, that's just
> pathetically stupid. Why can't a man operate a sewing machine? Why can't a man put a needle into a
> piece of fabric by hand? It's like you know, obviously they can (GBCT.3).

The tension evident here reflects the fact that conviviality and community inevitably raise questions of who is included and excluded, and what kinds of relationships and values are privileged and discarded in the creation of new systems. This is a central concern of Liboiron and Lepawsky's book *Discard Studies*

---

[24] A croft is a traditional enclosed farmstead in Scotland, usually situated in the Highlands and Islands, where people practice a combination of livestock farming and small-scale crop cultivation. "Crofters" are the people who live and work in the crofts.

(2022), and it is a point which will be discussed in greater detail in Section 6.3. of this chapter. In spite of these tensions, it is evident that the creative use of discards was perceived by GBCT participants as being highly significant for the development of a sense of conviviality and collective identity – although the implications of the specifically gendered sense of conviviality fostered here are ambiguous.

Whereas creative reuse practices such as sewing are clearly perceived as belonging to a strong tradition of (women) doing things together in community, and modern-day reuse activities are perceived as a way of reviving the positive aspects of these traditions, there is no such perception of discarding menstrual blood having ever been a communal or community-based activity. Irrespective of what traditions may have been commonplace prior to the development of modern Westernised menstrual capitalism, the discarding of menstrual blood is now typically viewed as an individualised and strictly private practice; a perception which has been entrenched in Western cultures throughout the twentieth century by the FemCare industry, with its emphasis on discretion and concealment (Røstvik 2022). Participants in BGP UEA subverted this individualisation of menstruation. Reusable period products including the period cup were once again portrayed as innovative discarding technologies, with the potential to transform menstruation from a private and even shameful experience, to one which could foster a sense of camaraderie among people who menstruate. This is evident in the following exchange between the two presenters of a podcast episode of *Strings Attached,* the podcast series made by the group in 2021:

Presenter 1: I remember getting [a period cup], my first one, like a couple of months after I found out about them in like first year of uni. So like, 2016, I remember going into [my friend's] room and being like, "look what I've bought. I have to put this up my vagina." And then convincing her to buy one so she could go on this journey with me.

Presenter 2: I remember I used to, cause when I first was using one, I was like in sixth form, so I was in school, and went into the toilets with my friends, and I was like, guys, can you put the hand dryer on when I do it, cause it makes this like, suction noise like "pop!" when I would pull it out. And people are gonna think, like, what is she doing in there? So can you just like wash your hands so you can put the hand dryer on so that people don't hear it? And then, you know, if no-one else was in there I'd be like, "guys it's a mess, it's an absolute blood bath." (Podcast 1).

The idea that using a period cup is a "journey" which friends and peers embark on together, and that mutual support and a shared sense of humour between friends are part of the everyday practice of using a period cup, offers a novel perspective on the kind of social innovation which is a cornerstone of grassroots innovations for sustainability (Apostolopoulou et al. 2022, Smith and Seyfang 2013). In addition, it raises the possibility of "collaborative discarding" as an answer to "collaborative consumption" – a concept which typically focuses on the prevention of discards through the sharing of goods and services, and which leaves questions of how communities can collaborate to shape ethical and sustainable systems of discarding largely unaddressed (e.g. Ertz et al. 2016, Hamari et al. 2015). It is perhaps an even more pertinent example of the role of conviviality and the importance of good social relations in discarding well than the above examples from the GBCT case study, since the former is primarily still concerned with preventing discards through reuse, rather than addressing what is to be done with the discards which remain or which cannot be avoided (Liboiron and Lepawsky 2022, Hawkins 2006).

To summarise, good relations are at the heart of GWIs' strategies for finding transformative ways of living with and through waste (see the conceptual framework outlined in Chapter 2). This includes putting an ethos of care at the centre of relations between people and more-than-human discards, and allowing the processes of living with and through discards to become a means of practicing care for the self and the wider community, and gaining a sense of moral and ethical pride. New or revived forms of conviviality and social bonds and rituals are also facilitated through alternative practices of living with discards and discarding well. Such expressions of care are politically significant for pushing back against oppressive systems which view certain groups of people as value-less waste (Reno 2015). However, these transformative ways of living with and through waste are not uncomplicated. Questions need to be asked regarding which sets of values are prioritised in these transformative practices, and what impact this has on challenging or reinforcing structural gender roles, as well as who gets to benefit from expressions of care with and through waste, and who is excluded.

6.2. Confronting systems of classification and removal

The second core way that intersectional GWIs contribute to shaping new systems for discarding well is in confronting dominant modes of classification and removal, which underpin hegemonic systems of discarding. As discard studies theorists have explained, all systems depend upon classifying and sorting,

to differentiate what belongs within the system from what is considered to have no place within it (or indeed, considered to threaten the integrity of the system, therefore necessitating its removal) (Liboiron and Lepawsky 2022, Reno 2015). In the context of capitalist, patriarchal, white supremacist, ableist, homophobic, and otherwise oppressive power structures, processes of classification and removal invariably reinforce these structures of domination (Moore 2012), and harm the groups who are most marginalised under these structures – people who are treated as disposable waste (Murphy 2017). Oppressive classificatory systems work through stereotypes. According to Liboiron and Lepawsky:

> Stereotyping is a system that categorises and creates systems of value and worthlessness simultaneously [...] [stereotypes] essentialise groups of people as lesser than the norm, allowing the Other to be less worthy of human rights, less human, more disposable (Liboiron and Lepawsky 2022: 111).

They argue that resisting the systemic disposal of groups deemed "Other" to the norm requires that stereotypes are challenged. But at the same time, differences must be acknowledged and respected, in order to develop new systems of discarding which prioritise justice and equity (ibid). Therefore, by challenging dominant systems of classification, and celebrating deviation from the stereotypes and essentialism used to uphold dominant systems, GWIs can contribute to the creation of alternative systems of discarding which subvert systems of oppression and prioritise justice for historically marginalised groups. At the same time, subverting dominant systems of classification and removal does not always happen consistently, and sometimes GWIs reinforce these systems in practice, even when rejecting them in theory.

6.2.1. The complexity of community belonging

In the GBCT case study, the issue of classification, and the designation of certain groups for removal and disposal based on stereotypes, was highly pertinent. Historically, Govanhill has functioned as a kind of holding space for groups of people who fall outside the boundary of established social structures: economic migrants arriving in the city to find work, and successive waves of immigrants from Ireland, Italy, Eastern and Central Europe, South Asia, and Africa, as well as religious minorities (De Main 2015). As discussed in the previous chapter, Govanhill has been labelled "the most demonised neighbourhood in Scotland" (MacKay 2018), due to classist and racist stereotypes about its inhabitants. Pushing back against these stereotypes, while celebrating diversity within the community and advocating for the needs of minority groups, has been a priority for GBCT since the organisation began (GBCT.1). However,

my fieldwork illuminated how the need to push back against oppressive modes of classification has taken on new dimensions, as debates intensify over the present-day demographic shifts taking place in Govanhill, and new schemata emerge for policing the boundaries of "who belongs in Govanhill" (Fieldnotes).

As mentioned briefly in Chapter 5, gentrification has become a hot topic in Govanhill in recent years, and is frequently associated with the rise of pricey independent cafes and arts-focused businesses opening in the area, as well as people perceived "hipsters" moving there. In a 2022 article, journalist and Govanhill resident Robbie Armstrong summarized the gentrification discourse:

> Often, the conversation focuses on [gentrification's] signifiers or symptoms: the overabundance of flat whites, well-heeled folks with small dogs, fixed-gear cyclists with spacers and sailor tattoos. But this comes at the detriment of another, more important discussion about the root causes of the problem – issues such as the housing crisis, lack of affordable homes, inadequate legislation, poverty and inequality (Armstrong 2022, no page ref.).[25]

In an interview with a senior staff member of GBCT, the staff member drew attention to the organisation's ongoing work with the Govanhill Housing Association, and their support for tenants' rights groups such as the Glasgow Living Rent campaign, as ways that the organisation tried to actively combat gentrification at its root (GBCT.1). In spite of this, and in spite of the organisation's long history of local activism in support of the most marginalised Govanhill residents, the Rags to Riches project specifically was sometimes associated with gentrification, and the influx of the "wrong" kind of people

---

[25] A fascinating synecdoche for the gentrification debate in Govanhill can be found in the story of the Pink Peacock cafe, a major talking point in Glasgow's Southside during the course of my PhD, which was mentioned by participants a number of times during data collection. The Pink Peacock was a self-described anarchist, Jewish, Yiddish-speaking, queer, abolitionist, pay-as-you-can cafe and community space, run by a collective, which opened in Govanhill in 2021. The cafe was the subject of a tremendous amount of controversy during its short lifespan, before it finally closed its doors in June 2023. According to statements from the Pink Peacock collective and media reporting over its closure, the cafe was frequently accused of being a gentrifying force in the area and was attacked for being out of touch with the rest of the Govanhill community. Its key organisers were derided for what was perceived as their relative social privilege and lack of understanding of the needs of the wider community. My own conversations with Govanhill and Glasgow Southside residents during 2021-2022 corroborate this. According to members of the Pink Peacock collective, much of the criticism levied at the Pink Peacock was based on Anti-Semitic stereotypes and misinformation, as well as prejudice against its members who were North American immigrants. The organisers rejected the accusation that the cafe was a gentrifying force, pointing out that it provided exclusively free or pay-what-you-can food and goods, and that it was run on a not-for-profit basis by a collective of volunteers, many of whom were themselves experiencing financial hardship (Lipson 2023, Pink Peacock 2024). The debate around whether Pink Peacock represented progressive community organising, or gentrification which ultimately does more harm than good, highlights the thorniness of the issue of demographic and cultural changes in the area.

into Govanhill. This was evident in an interaction I had with a 74-year-old local resident, a white Scottish woman I will call "Sue". Sue approached me while I was volunteering at "This is Not a Boot Sale", the monthly second-hand clothing and craft fair run by the Rags to Riches team. I recorded the encounter in my fieldnotes:

> Sue complains that these events are for "yuppies and hipsters", and that there are too many people of this description in Govanhill now. She complains about gentrification in the area, which she says this event is an example of. [...]what "ordinary people" really want is to be able to afford a pint of milk. She sees community organisations like this one as part of the problem [...] They don't know what the community really wants, but she does: "I've got my ear to the ground". I ask Sue what she means by "regular Glaswegians" [...] She is quick to stress it's not about race [...] She says, "you can be black, white, or grey" to be "of the area". It's "socioeconomic", it's about "values" (she does not expand on what the values of regular Glaswegians are) [...] At one point in the conversation, when talking about how locals can't afford the bougie things on offer in the area now, she says "not me, I'm wealthy. Well, I've got plenty of money. I've always had good jobs. But I'm careful with money." Eilidh [Rags to Riches staff member] overheard this part of the conversation. When I talk to Eilidh about it after Sue has left, Eilidh says "I don't! [have lots of money]."

My exchange with Sue is indicative of how a new system of classification has emerged among some Govanhill residents, which polices the boundaries of who belongs within the community and who should be excluded from belonging, based on stereotypes about what constitutes an authentic, working-class, Govanhill identity. The Rags to Riches initiative, with its colourful public-facing events, found itself embroiled in this live issue. Whilst Sue raises legitimate concerns about poverty and increasing inequality during the cost-of-living crisis, the assumption that the Rags to Riches reuse hub is fundamentally at odds with the interests of "ordinary people" struggling with the cost of living speaks to an interesting set of assumptions about class, and what working-class people and those from immigrant backgrounds value. This was also hinted at by one interviewee, who expressed the view that unsustainable consumption was popular among working-class Glasgwegian communities, because continually buying new things instead of reusing what you have is associated with social mobility:

> Here [there] is is a kind of consumerism, so you have to spend, spend, spend, maybe bring people up in social class [...] it's stuck in [the] mind of local people here, that they have to shop, shop, shop all the time (GBCT.2).

However, the same interviewee – a former refugee from Rwanda, who was a collaborator with Rags to Riches – also emphasised that this preference for consumerist lifestyles was by no means universal

across the local community and among people experiencing financial hardship and social marginalisation. They argued that refugee and migrant women have strong ethical norms around reuse, repair, and non-capitalist forms of gifting and giving, which supersede the desire to obtain material signifiers of social mobility:

> Why, when I have clothes to wear enough, why should [I] go to shop again? I should use what I have until maybe they don't serve the purpose, then I buy another one. And if they don't fit the purpose, I can transform it, use it in a different way [...] And that is a part of our culture, you know, giving something to someone, is not like, [people] are better than you, [if] you are using second hand, you know, it's not attached to that [...] there is a part of using efficiently what you have, and which is important (GBCT.2).

This speaks to Anantharaman's (2018) observations about the "quotidian sustainability" practiced among marginalised, racialised communities, which is often overlooked by mainstream, elite understandings of sustainable consumption. It highlights that there is not a singular working-class identity, or a singular set of preferences and behaviours belonging to people with low incomes.

Returning to the opinion expressed by Sue, that reuse activities are not reflective of the needs and preferences of "regular Glaswegians", the irony of a self-described "wealthy" person positioning themselves as the arbiter of authentic working-class identity was not lost on Eilidh, the Rags to Riches staff member I spoke to following this interaction. Eilidh brought up the fact that people who work in the community sector, including themselves, are not typically well-paid or wealthy, and that an event such as "This is Not a Boot Sale" is run by and for the local community, most of whom are not wealthy, and view these events as an opportunity to explore style and fashion in an affordable way, and make extra money by selling their own and their children's old clothes. Yet regardless of actual income or background, they are perceived as middle-class "yuppies" because of the way they look and things they like doing, by people who "don't like change" (Rags to Riches staff member, quoted in fieldnotes).

Compounding Sue's problematic way of classifying authentic Govanhill residents is the way that her othering of residents with an interest in the reuse hub and other aspects of the local creative scene was queer-coded. This point was made by a locally based friend I spoke to about the incident later that day:

> Discussing this with friends later, O commented that when Sue complains about yuppies in Govanhill, "she means gay" (Fieldnotes).

It is of course impossible to confirm whether Sue's disdain for the attendees of "This is Not a Boot Sale" was rooted in homophobic or queerphobic bias. However, the association of the local creative scene and

environmental sustainability with the increasing number of queer and transgender people moving into Govanhill, and complaints about gentrification and outsiders threatening the authentic Govanhill identity, came up numerous times in my interviews and conversations with GBCT staff and volunteers (GBCT.1., GBCT.12, GBCT.13). It is also reflected in media reporting about the changing face of the area.[26] GBCT participants were resoundingly supportive of the local queer community, and actively wanted the organisation to be associated with Govanhill becoming known as a queer-friendly community. I asked one long-standing staff member about the changes they observed in Govanhill, and their response confirms this:

> Well, the area changed in an artistic way [...] And I see many more people who is like LGBTQ kind of members. And I see no problem at all. My God, if the person wants to be somebody, you know, why would you stop him? [...] What is the problem to you? [...] You know, the world is so much more than worrying about who is artistic, what sex they want to have, you know, to be recognised as [...] I think it's great. People can express themselves [with] more freedom. I have no problems. What [harm] is that doing back to the area? Nothing, it's just positive. (GBCT.12).

The interviewee's expression of support for artistic and queer newcomers conveys not only the way in which LGBTQIA+ identities and the growing arts and culture scene are often conflated by older members of the community, but also, the organisation's firm political stance that *all* oppressed social groups should be advocated for. This stance was further hammered home by a poster displayed throughout the GBCT premises, which featured a rainbow background and the Black Lives Matter symbol, and the words: "committed to combatting all forms of racism, bigotry, and discrimination (Figure 6.2). The organisation's approach to subverting stereotypes about who belongs in a working-class, migrant community also echoes intersectionality scholars who argue that challenging essentialism, and pushing back against the construction of social categories on which oppression is founded (while simultaneously recognising that these categories have real material impacts through their sedimentation in social institutions and structures), are key to radical intersectional politics (Walby et al. 2012, McCall 2005).

---

[26] For example, a 2018 article in the Herald, headlined "Govanhill is a microcosm of our wider populist political landscape", ran with the following sub-heading: "The bicycle stands outside are all full. A visitor will be tripping over listed buildings on their way. If you can avoid the temptation of an independent queer bookshop, a record store, half a dozen coffee shops, delis, cafes and innovative restaurants then welcome - you've joined me in a hipster pub." (Stewart 2018). The lumping-together of cycling and the local LGBTQ+ bookshop with the upmarket delis and restaurants considered to be hallmarks of gentrification reveals the level of suspicion with which both the queer community and signifiers of sustainable consumption are viewed in relation to gentrification.

Figure 6.2. Poster displayed throughout GBCT spaces.

What the above discussion demonstrates is that GBCT and its reuse work were at the centre of shifting and conflicting systems of classification, which sort insiders from outsiders (Liboiron and Lepawsky 2022). Two different systems of discarding clash against each other in the case of Govanhill. On one hand, Govanhill is seen as a refuge for people who have already been othered and discarded by hegemonic societal structures: immigrants, ethnic and religious minorities, working-class people, and also LGBTQIA+ people (and it should be kept in mind that LGBTQIA+ people are often also working class and / or from immigrant or racial minority backgrounds. Struggles against poverty, racism, and queerphobia are not mutually exclusive, and intersect for many people (Haslop 2018)). For those who have already been othered, there is a shared experience of being discarded based on difference and

deviation from mainstream social structures, creating fertile ground for solidarity or, at the very least, mutual tolerance. This was expressed by a GBCT staff member:

> Usually, if it's a safe place for migrants, it tends to be a safe place for gays and LGBT people, just people who are different (GBCT.1).

At the same time, there is evidence of another system of discarding within Govanhill, which stems from anxieties over ongoing inequality, gentrification, and the rising cost of living in the area, and is intended to sort the "authentic" community from the "inauthentic" outsiders, who are often scapegoated for these challenges. This second system of discarding works in service of hegemonic structures of class, race, and capitalist value, by playing into stereotypes about working-class and migrant identities, and excluding people who do not conform to these stereotypes, regardless of the material circumstances of their lives or the other forms of marginalisation they may be experiencing, such as queerphobia and transphobia. Even within the work of GBCT, this system of classification, exclusion, and removal from community spaces based on stereotypes about authentic working class and migrant identities sometimes reared its head, for example in the following observation of how a People's Pantry volunteer responded to a perceived outsider:

> I notice that interactions between Sandra and people who come into the Pantry as customers are sometimes a bit tense. E.g. a young woman with an American accent[27] comes in and asks if we have soup. Sandra is clearly irritated by this and answers curtly "what do you mean?" and tells the woman she has to be a member and there's a waiting list which is over a year long. The woman says sorry, she didn't know. I think it is a bit unfair for Sandra to chastise people for not understanding how it works – how are they supposed to know? [...] It's noticeable that Sandra is warmer and friendlier with members who are regulars, whom she recognises, knows by name, and chats to often. She is more lenient with them when they forget to bring their membership card. She seems suspicious of people she is not familiar with. (Fieldnotes).

I share this example to show that GBCT is by no means a utopian organisation in which dominant systems of classification and removal based on problematic stereotyping are only ever rejected and pushed against. Instead, these contradictory examples of GBCT participants' rejection of, and occasional complicity in, community gatekeeping highlight the complexity of the organisation's position at the confluence of contrasting systems of categorisation. Evidently, there is sometimes a gap between the

---

[27] Discomfort with young, North American immigrants in Govanhill is also reflected in the Pink Peacock saga, given that some of the key organisers of the Pink Peacock Café had emigrated from Canada (see footnote 25).

organisation's ideological commitment to challenging unproductive boundary-keeping, and the messy realities of what happens in practice, in a fast-paced and sometimes stressful environment where staff and volunteers try to meet community needs amid surging demand.

6.2.2. Menstruation and the politics of gender classification

As we have seen in the section above, classification, inclusion and exclusion were contentious issues in the case of GBCT, as the organisation straddled conflicting ideas about community belonging. In the case of BGP UEA, there was little internal discord around the question of who "belongs" in the category of "person who menstruates", and thus who the group's work was for. As discussed in Chapter 5, the group were explicitly committed to a transgender-inclusive framing of periods. They avoided gendered language, and worked to promote the provision of free period products in gender-neutral toilets and spaces. The student members of BGP UEA, the staff who supported the group, and all other students I interacted with while observing and volunteering with BGP UEA, were unanimously accepting of a trans-inclusive approach to menstrual equity (Fieldnotes). From this, it became apparent that the university community in which BGP UEA did its work landed firmly on one side of what has become a highly-charged debate over the boundaries of gender as a classificatory system. Menstruation has been something of a lightning rod in these debates (Rydström 2020), with influential public figures such as J.K. Rowling implying that female identity is defined by having a period – a controversial stance which has been criticised not only for excluding transgender men and non-binary people who menstruate, but also for reinforcing a regressive patriarchal ideology which reduces women to their reproductive capacities, and excludes women who do not menstruate from full personhood on this basis (Madani 2020).[28]

BGP UEA's commitment to challenging trans-exclusionary gender classification is evident in, for example, the disagreement with the local primary school described in the previous chapter. With that said, the group's commitment to subverting oppressive gender classifications occasionally slipped in practice. I observed this after attending an event with BGP UEA, on the theme of "Women's and Reproductive Health", which was organised in collaboration with Students for Global Health and other student societies, and was attended almost exclusively by medical students:

---

[28] J.K., Rowling, author of the *Harry Potter* children's books, has been widely accused of transphobia. In 2020, she posted on X (formerly Twitter) criticising a global development agency's use of the phase "people who menstruate", arguing that they should have instead simply said "women". This garnered significant backlash from both trans rights advocates and people concerned that the conflation of women with menstruation does a disservice to cisgender women who do not menstruate. See Madani (2020).

BGP UEA don't always manage to be consistent on [gender inclusive language]. Ellen [BGP UEA representative] said after the presentation that she had accidentally slipped back into using gendered language. And the event itself to a degree set this up, because it was focused on "women's health", and most of the participating societies and attendees are speaking from the context of being a medical practitioner in a medical establishment which is still overwhelmingly binary in its approach to gender and health (Fieldnotes).

The participating students were self-aware about how medical institutional bias surrounding how the category "woman" is defined percolated their everyday speech and practices. One interviewee, who was studying medicine and had participated in the "Women's and Reproductive Health" event, reflected on this in an interview:

I have a lot of views on [gendered language], because med-wise, I know sometimes when they're using certain words, it's because of the physiological differences. So then you have to say, put the difference there, so that maybe the treatment is different, or we'll investigate differently. I understand it in that sense. But then I also get the thing of being inclusive, and the world is changing. So I feel like medicine and other industries need to adapt with the world. It's just naturally how stuff should go (BGP.7).

Evidently, the question of how to navigate the politics of gender classification in relation to menstruation and bodily processes typically considered the purview of "women's health" was something that the students in my study – many of whom were studying to become healthcare professionals – were actively grappling with. The interviewee quoted above, and several other interviewees who reflected on this theme from the perspective of being trainee healthcare practitioners, all stressed the importance of making trans patients feel respected and validated in professional interactions with them (BGP.2., BGP.6, BGP.7, BGP.8). As one interviewee put it:

It's definitely like, taking it [as] a person-by-person thing. For example, if you're in a consultation, asking people what their pronouns are, asking people how they want to be addressed, what they identify as, just respecting that (BGP.8).

This pragmatic approach illustrates the steps that the students felt could be taken to mitigate the potentially harmful impacts of conventional gender classification systems on individuals who fall outside of established gender boundaries. Simple steps to foster good relations with trans patients, such as asking their pronouns, can be taken even in the absence of clarity over how gender classification

systems could be reworked in complex medical settings.What this demonstrates is that perfect consistency and complete clarity are not always possible for GWIs attempting to subvert oppressive systems of classification and removal – especially considering that GWIs are still in a dynamic relationship with external socio-political structures and institutions, such as the medical establishment in this case. However, participants can still be critically reflexive about how their work is situated in relation to these structures and institutions, and how they challenge or inadvertently reinforce undesirable systems of classification in their everyday practices. Self-reflexivity provides an opportunity to develop strategies for confronting the challenges posed by navigating dominant systems of classification, even if these dominant systems cannot always be completely overturned.

Figure 6.3. Digital poster promoting the "Women's and Reproductive Health" event, March 2023.

6.3. Incompleteness and incommensurability

So far in this chapter, I have discussed two ways that GWIs contribute to shaping new systems for discarding well: firstly, by finding transformative ways of living with and through waste, and secondly, by subverting oppressive systems of classification and removal. However, it now needs to be acknowledged that these contributions to new systems of discarding well are incomplete, leaving unanswered questions around what to do with the discards that persist even after new systems and methods of discarding have been implemented. Furthermore, as Liboiron and Lepawsky argue, when changes are made to systems of discarding, new injustices can occur, even when these changes have been implemented precisely to address certain sets of injustices (2022: 138-141). The authors explore this point through the concept of *incommensurability*: interventions to address one kind of injustice are not commensurate to tackling all kinds of injustice, and different justice needs may even be at odds with each other (ibid). Genuinely transformative approaches to discarding require that we acknowledge and confront the discomfort of incompleteness and incommensurability.

In the following section of this chapter, I will pick up on two salient aspects of incompleteness and incommensurability which emerged from the case studies. Firstly, the issue of material afterlives (i.e. the afterlives of the materials which are not given a neat "ending" by the interventions GWIs make into mainstream systems of discarding), and secondly, the issue of discarded perspectives (the perspectives of certain interest groups in each case, which are de-prioritised in the creation of new systems and interventions to address the perspectives of other interest groups). These issues of incompleteness and incommensurability illuminate where the ongoing challenges lie for GWIs seeking to have a transformative impact on contemporary waste systems.

6.3.1. Material afterlives

Discard studies theorists are concerned with how discards persist and have afterlives beyond their relational ties to human systems and identities. These afterlives are typically overlooked in mainstream interventions which aim to address waste (Liboiron 2016, Arnall and Kothari 2020). Following a discard studies perspective, I argue that analysis of GWIs' ability to shape transformative systems of discarding well cannot end with analysis of how GWIs deal with a select group of discards, or how they allow participants to find meaning through relating differently to waste. It is also necessary to critically

examine the discards which are left behind, and the new discards which are generated, by the activities of GWIs.

In both case studies, the GWIs created waste at the same time as taking action to prevent waste. This may seem contradictory, but is in fact hardly surprising considering Liboiron and Lepawsky's (2022) theorising on how all systems hold together through the generation of waste, including systems which have been intentionally oriented towards socially and ecologically just ends. Being accountable to the discards which remain is one step which can be taken to respond sensitively to this complicated reality (ibid: 128-129), as Liboiron (2021: 41) argues with reference to anti-colonial ways of wasting which acknowledge the impact of discards (such as unused animal parts) on indigenous people's "relatives" in the more-than-human environment, and the positive contribution discards can make to dynamic lifeworlds.

In the BGP UEA case study, there was little evidence that participants had tried to be accountable to, or were even aware of, the afterlives of menstrual waste. Participants were primarily concerned with how discarding menstrual blood differently could have transformative effects during the process of menstruation for students in the home or university environment. The group's campaigning to secure the widespread provision of free period products across campus upheld the normative assumption that the period product market is essential for the wellbeing and political empowerment of people who menstruate, and that switching to different products within this market also offers the solution to problems of waste and unsustainability. As Bobel (2018) and Røstvik (2022) have observed, the demonisation of homemade and non-market-based approaches to managing menstruation reflects an attitude of Western capitalist exceptionalism. The assumption that non-use, or lack of access to, specific biotechnologies automatically constitutes deficiency has also been critiqued from a feminist science and technology studies perspective (Vaughan 2020: 4). Yet, interviewees all framed access to conventional period products as a non-negotiable necessity and a basic right (BGP.2., BGP.3, BGP.9, BGP.10, BGP.11, BGP.12). As one Students' Union staff member put it:

> Nobody expects me to walk around with toilet paper. So why should anybody else who needs personal care products have to provide that [themselves] in the same way? (BGP.10).

Following the group's normative stance that access to free modern period products was synonymous with achieving equity for people who menstruate, BGP UEA had essentially fulfilled their mission once the university had agreed to take over responsibility for providing free (disposable) period products in all

buildings on campus in 2023. As I reflected in my fieldnotes at the time, this was likely to be a key reason for the significant decline in activity by the group in the academic year 2022-2023 when I was conducting my fieldwork (Fieldnotes).

The widespread dissemination of free modern period products on campus fails to address questions of what happens to both the organic and synthetic discards of menstruation after disposal. With the exception of one student who described using collected menstrual blood as a fertiliser for their plants (BGP.6), BGP UEA interviewees showed little consideration of the afterlives and futurity of menstrual blood itself, once it has been disposed of via single-use products which carry this blood to landfill or incinerators, or the greywater systems which flush or wash away blood that has been collected in period cups or reusable cloth pads (Vaughan 2020). The group's preoccupation with how menstrual blood is experienced and managed at the scale of the body and within the home or university is therefore not aligned with consideration of how menstrual blood interacts with broader waste management infrastructure, and the various non-human actors (worms, microbes, and others) which process bodily waste (Hawkins 2006: 124-128, Holmberg 2021).

Furthermore, interviewees expressed satisfaction with the fact that the university had chosen to award the contract for providing free period products to Grace and Green, a B-Corp which advertises its single-use pads and tampons as "the most ethical, sustainable period care" (Grace and Green 2024). The company's marketing claim was repeated uncritically by a university staff member I interviewed, who had been instrumental in setting up the contract:

> Yeah, Grace and Green, they provide sustainable products, and that was one of the key things that we were definitely looking for when looking for a supplier […] We are an institution that obviously cares about sustainability […] I think it's generally a thing that everybody has at the back of their mind when they try and, when they're doing projects like this, so I don't think we necessarily had to have a big debate about it. We were like, "oh and they're sustainable, okay that's great, let's do that." (BGP.5).

As Punzi and Werner (2020) have argued, claims that single-use period products can be made ecologically sustainable when sourced from organic materials and labelled biodegradable often do not stand up to scrutiny, but these claims are rarely questioned. The interviewee quoted above confirms Punzi and Werner's arguments, by drawing attention to how little critical reflection or deeper research

went into the university's choice of supplier for supposedly sustainable period products. Consideration of what really happens to products labelled biodegradable – where they travel to after being placed in a sanitary bin, whose labour is implicated, and how period product waste is entangled with other natural, social, and material entities (Holmberg 2021) – was noticeably lacking. The uncritical acceptance of free provision of Grace and Green's products as the answer to campus period poverty and unsustainability reflects observations by critical menstruation scholars, who highlight how FemCare corporations and smaller startup brands have adapted to the changing cultural landscape of environmental and feminist awareness, and have been able to successfully market their products as the solution to sustainability challenges, period poverty, and women's empowerment in a misogynistic society (Røstvik 2022, Punzi and Werner 2020). It speaks to concerns about corporate "woke-washing", which ultimately expands the influence of menstrual capitalism (Haneman 2021).

Whilst BGP UEA had at various points taken on small-scale projects which challenged the dominance of conventional period products, such as workshops on making your own reusable pads (BGP.1, BGP.3), and consistently pushed for the dissemination of reusable products such as the period cup with the explicit goal of reducing single-use period product waste, neither the student campaigners nor university and Students' Union staff considered it a realistic or desirable prospect to make reusable alternatives the default offering on campus. The decision to make single-use tampons and pads the main focus of the university's free period products scheme was justified by interviewees on the basis that this would maximise the number of students able to benefit from the scheme while keeping costs low. One interviewee, a staff member with the Students' Union who had been active in facilitating the scheme giving away free period cups, explained that they only made a limited number available each year, while giving away unlimited numbers of disposable products:

> We usually order around 50 [period cups], they don't all go every year […] I do think it's one of those things where not everybody's necessarily keen on that version of a sustainable product […] the policy that was put through was to help the most number of students. So it's, yeah, I think it's probably fair to say that we put quite a lot of money into it as a charity, which is fine, it's what our members want. But we then have to think about what is going to positively impact the majority of our membership, rather than finding, rather than limiting that […] [if we] had 300 people coming to us for period cups for instance, then we'd have to probably have another conversation about that (BGP.9).

This demonstrates the limitations of BGP UEA's work to promote transformative methods of discarding

menstrual blood. As single-use products are still considered to have wider appeal and to be a default basic necessity for menstrual care (BGP.10), they are considered the most efficient solution to period inequity, regardless of what happens to these products after disposal.

BGP UEA's campaign for free period products in all buildings on campus succeeded in transferring responsibility for purchasing these products from the individual to the institution. But the overall reliance of menstruators on the FemCare industry, and the throughput of single-use products, was largely unaffected. On the contrary, the profit margin of Grace and Green undoubtedly increased as a result of BGP UEA's work. There is thus a tension between BGP UEA participants' desire to reduce the ecological impact of single-use period products, and their unquestioned acceptance of the FemCare industry as the purveyor of supposedly indispensable technologies for the management of menstrual blood. The work of BGP UEA to transform systems of discarding in the interests of greater social and ecological justice is therefore incomplete, and shows how the goal of improving access to quick and convenient modern period products is not necessarily commensurate with achieving deep reductions in the ecological footprint of conventional period products, or loosening the capitalist stranglehold of the FemCare industry.

The incompleteness of waste reduction strategies was also evident in the GBCT case study. As mentioned in Chapter 5, the People's Pantry functioned not as a comprehensive waste reduction intervention, but as an additional node in the food waste regime (Gille 2013), and People's Pantry staff and volunteers typically ended up being responsible for the onwards disposal of a significant quantity of food waste which they had been unable to redistribute for consumption. Unusable discards were also a feature of the Rags to Riches reuse hub, though interviewees speaking about this did not express the same concern over lack of fairness as People's Pantry interviewees, who had a sense of being exploited by large food businesses in being made responsible for the afterlives of unsold food (GBCT.12, GBCT.17). Rags to Riches interviewees were sensitive to the limitations of their reuse work for repurposing all donated discards, but seemed unsure about how the issue of leftover discards should be addressed. One staff member responsible for woodwork was up-front about how the complete elimination of waste was not realistic:

> [T]he whole point is to be using waste and not creating more, [but] I don't think there's any way of 100% doing that. There's always going to be unusable offcuts when you're working with wood, and we're trying

to make things that are made out of pieces that are already considered unusable, and we're trying to make them usable, but even in that process we're going to create even less usable pieces (GBCT.7).

This confirms what Gregson and Crang (2010) have observed: processes of reuse, recycling, and other forms of waste management do not eliminate waste, but merely transform it or create new iterations of discards. Such new iterations were particularly visible in the Rags to Riches plastic workspace. In preparing plastic toys and other discarded objects for recycling, staff and volunteers stripped or washed them to separate their non-plastic components including metal screws, paper labels, film, and adhesive. This created substantial new waste streams, for which there did not seem to be established procedures of disposal (Fieldnotes). Furthermore, the workspace was piled high with boxes of crushed plastic pellets waiting to be mixed with jesmonite, a gypsum-based resin, through which the crushed plastic would be transformed into new products. Not only was the workspace generating more plastic pellets than could feasibly be used in the making of nick-nacks such as soap dishes or pieces of furniture, but the process of making these new items from the combination of plastic and jesmonite generated new discards, as I observed during a jesmonite casting workshop:

> The workshop actually creates waste – we use disposable plastic gloves and disposable mixers. This feels somewhat ironic (Fieldnotes).

Much like how participants in the BGP case study accepted without question the sustainability credentials of Grace and Green's organic and biodegradable single-use period products, participants in the GBCT case study did not question the sustainability credentials of jesmonite, a building and craft material that is marketed as "eco-friendly" and claims to source materials "through local supply chains to keep CO_2 emissions and carbon footprint to a minimum" (Made From Jesmonite 2024). Offcuts and spillages of mixed jesmonite and plastic were discarded as residual waste, along with stained disposable plastic gloves and mixers. The fact that new plastic discards were generated during the plastic recycling workshops sits uncomfortably alongside the desire of one workshop facilitator to confront the substantial harms of plastic waste colonialism, which they saw as a major issue in their home country, Malaysia:

> I've always known about the issues with plastic, the plastic crisis around the world. Especially in Malaysia, we get the worst end of the stick in this crisis. So not only do we have issues with pollution or waste products from our community, but then other countries also send their waste to Malaysia

> to try and get rid of it, instead of recycling or whatever it is. We just end up putting it in the landfills in
> Malaysia for example […] So, I just had that as a motivation. (GBCT.16).

This raises an interesting predicament: in seeking to transform certain plastic discards back into objects with aesthetic and use value in Govanhill, new plastic discards were generated, which were not suitable for recycling using Rags to Riches' DIY machinery, such as disposable plastic gloves (generally made from synthetic polymers such as acrylonitrile butadiene styrene). These hard-to-recycle and hard-to-reuse discards enter the municipal waste system, where they impact unknown and unseen others – perhaps eventually sharing the same fate as many of the discards exported to Malaysia and other regions in the Global Majority world (GAIA 2019, Gregson and Crang 2019). GWIs should not be held responsible for the broader waste regime which processes discards in unjust ways. Moreover, the discards generated by GWIs in the process of their environmental and social justice work are a drop in the ocean compared to the industrial solid wastes which constitute the vast majority of waste in the world (see Chapter 1), and being overly critical of grassroots projects which generate small amounts of waste runs the risk of detracting attention from the handful of powerful industrial actors which bear the most responsibility for the waste crisis. I therefore do not intend for my analysis of the two cases to be read as a condemnation of their efforts, but rather, a reflection on the difficulty of finding perfect solutions for discards, and the futility of expecting GWIs to develop interventions which eliminate waste entirely.

These issues of incompleteness, and the inability of GWIs to account for, or be accountable to, the material afterlives of the discards they encounter, do not invalidate the work GWIs do to shape alternative systems which discard well. However, unresolved issues of material afterlives draw attention to areas where further critical work is needed, on both the part of GWIs and the researchers who work with them, to trace the trash (Holmberg 2021) that arises or remains, and develop further strategies for addressing a broader range of social justice and ecological considerations in the work of developing new methods of discarding.

6.3.2. Discarded perspectives

When considering issues of incompleteness and incommensurability, it is important to acknowledge that GWIs which strive to have a positive impact on social justice agendas do not achieve universally "good" outcomes. As Liboiron and Lepawsky (2022: 138-139) summarise:

> [A]n ethic of incommensurability [means] there can be no single and universal "good" that can or ought to be achieved through change, no totally complete or finished project that addresses everything [...] It also recognizes that some goods may clash with one another [...] When such clashes happen (a normal and frequent experience), additional iterations of change need to be pursued.

In the creation of new systems of discarding which subvert the oppressive and unjust effects of the status quo, some perspectives are still discarded or deprioritised in favour of others. Further and future interventions may then be needed, to be accountable to these discarded perspectives and address additional social justice needs.

In the case of GBCT, a recurring theme was the organisation's failure to engage men in their waste prevention work and broader community wellbeing work. The following extract from an interview with a senior staff member encapsulates this:

> Interviewer: Are there any groups or demographics that you feel you're struggling to reach with the different things [the organisation] does?
>
> GBCT.1: Yeah, white men. White middle-aged men, really difficult [...] in one sense, you know, they've always been a bit looked after in that there was always a pub, or there was the bookies, or there was work, you know, so it's only in the last 30 or so years that you're seeing more and more men become disenfranchised with lack of jobs, lack of security, mental ill health, pubs not really serving the purpose they used to do [...] Suicide rates for white men and drug use for white men in Govanhill are pretty abysmal, really, really bad [...] They don't feel easy to mix with people, they don't feel – women have always been much more, just because of the nature of, you know, who we are and how we need to negotiate life, much better at going out there and finding stuff, or feeling like we have to be advocates for our kids or, you know, families and so on [...] we'd struggle to get men involved in stuff [...]The woodwork that we started doing, ironically, it's attracting more women than men.

This perspective was echoed in the views of staff and volunteers working with textiles in particular, as they reflected on the way that their work fell into traditional gender roles, as discussed in Section 6.1. The sense of "sisterhood" and the culture of collaboration and mutual support engendered by Rags to Riches workshops was described by many interviewees as one of the most valuable aspects of the project's work, especially as women were able to find common ground through taking part in this work despite differences in background, language, race, religion, and life experiences (GBCT.2, GBCT.3, GBCT.4, GBCT.6a, GBCT.6b, GBCT.11). But the exclusion of men from these benefits was seen as a sticking point, especially given the various vulnerabilities experienced by working-class men in neoliberal

Britain. Patriarchal gender roles, which position women as responsible for family and community care while positioning men as individuals in competition with each other, are in this case a source of vulnerability for men experiencing intersecting challenges of poverty and health inequality; subverting the assumption that only women and gender minorities are disadvantaged by patriarchy (Tarrant 2010). One interviewee, who attended a series of free reuse workshops offered by Rags to Riches (not advertised as being for women only, but exclusively attended by women), shared a personal perspective on this with examples from her own family:

> Interviewer: Is your husband involved in anything similar to this? Do you think he would [get involved]?
>
> GBCT.6a: Not at all.
>
> Interviewer: Why not, do you think?
>
> GBCT.6a: He's not so arty kind of person, so he's a quiet person. He's always just busy in his work. He helps me with the house sometimes, but that's it. He doesn't have other hobbies […] My son used to do drawing, sketching and woodwork. He had done it in the school, and he was interested in it, but now he's not doing it anymore because he's busy with work. But he [has] got this thing [creativity] in him as well.

The interviewee's reflections speak to not only the isolation experienced by many men in the community, but also the way that men are implicitly discouraged from expressing themselves creatively, in favour of conforming to more traditional masculine roles surrounding work and being a breadwinner.

Despite being concerned about these issues, one GBCT staff member reflected that catering to men may be incommensurate with the unique and positive atmosphere created in all-female workspaces. They reflected on this in relation to the traditional textile work performed by working-class women in Scotland, which was seen as an important inspiration for Rags to Riches workshops:

> [H]ow different that would be if there was a, if a man had been involved in that, that would probably have changed the dynamic (GBCT.3).

It is important to keep in mind that GBCT was actively trying to address specific vulnerabilities experienced by women, for example women's experiences of domestic violence, through interventions such as the "Women on the Mend" reuse workshops. The deliberate centering of women in these spaces – and subsequent exclusion of men – is not a failing, but rather a logical by-product of the

organisation's work to subvert systems in which marginalised women are discarded. This is the kind of incommensurability Liboiron and Lepawsky write about in their theorising on the development of new systems for discarding well (2022: 136). The question then remains: what "additional iterations of change" (ibid. 139) need to be pursued, to address the perspectives discarded in GBCT's work to support marginalised women? A senior staff member suggested that a dedicated men's group could have a positive impact, but made the point that they, as a grassroots organisation with limited resources, were not in a position to take responsibility for this:

> So maybe we just needed some men to come along and say, can we have a men's group, or [we] want another, you know, something else? We'll see. But we can't do everything, you know, can't do everything. And there's probably better organisations than us who could do that (GBCT.1).

This is an important perspective on incompleteness and incommensurability in the work of an intersectional grassroots organisation like GBCT. Identifying the discarded perspectives which are deprioritised in the organisation's work shows where future opportunities may lie for the organisation to address additional axes of vulnerability – in this case, the vulnerabilities which arise at the intersection of masculinity, class, age, health inequality, and the erosion of social structures under neoliberal capitalism. At the same time, this risks compounding the pressure for grassroots organisers to "do everything". This pressure, when it falls on people who are already marginalised such as working-class, migrant, and low-paid women working in the community sector, can reinforce inequitable structures and systems. Therefore, instead of demanding that community organisers active in GWIs continually pursue additional iterations of change as their work constructs new systems which address some sets of needs while excluding others, it may be more fruitful to reflect on why GWIs struggle to "do everything", and which external actors and agents could work proactively alongside GWIs to address the inevitable gaps.

Participants in the BGP UEA case study did not display such a clear shared understanding of the needs and perspectives their work discarded in the pursuit of improved access to period products for people who menstruate. Yet there is an obvious and very sizeable group who were not included in the majority of the work the group undertook: people who *do not menstruate.* This category is of course extremely diverse, as it includes cisgender men, people who have gone through menopause, people with certain medical conditions which prevent menstruation, people taking certain forms of contraception or medications which suppress menstruation, and transgender women. People who do not menstruate

thus have widely varying experiences of privilege and marginalisation, depending on intersecting factors such as gender, health, and age. However, as discussed in Section 6.1.1. of this chapter, there was a general assumption among participants that, since having a period was perceived as fundamentally unpleasant, not menstruating was therefore automatically a position of privilege, and thus people in this position were not relevant to the work of the group. For example, this view was evidenced during an activity I coordinated with BGP UEA at the "Women's and Reproductive Health" event, where the attendees were asked to contribute to a collaborative mind-map on what having a period would be like in an ideal world, and several people wrote "no periods" (Fieldnotes). Not all participants felt this way, such as the interviewee quoted in Section 6.1.1., who was experiencing irregular periods in connection with a medical condition, and drew attention to how this was actually far from ideal for them (BGP.8). In general however, BGP UEA focused exclusively on the needs of people who *do* menstruate, and gave little attention to diverse needs of people who do not.

One exception to this was a podcast episode made by two BGP UEA members on the topic of menopause (Podcast 3). The student presenters openly discussed their own ignorance about this topic. They reflected on how there is a misconception that the process of menopause must be positive, because it is associated solely with the cessation of periods, and there is a lack of education and awareness of the other symptoms and difficulties – such as fatigue, anxiety and panic disorders, brain fog, joint pain, headaches, hot flushes, poor sleep, metabolic changes, and osteoporosis – which can occur during peri and post-menopause:

> Presenter 1: I literally was never taught anything. All I knew about menopause was from my mum saying it's when you stop having your period and you just like get hot flushes.

> Presenter 2: Yeah, it was like, oh she's going through the change, she's having a hot flush, and I was like, oh it sounds alright. And then I was like, it sounds like hell. (Podcast 3).

In spite of the concern shown by the presenters over the lack of societal awareness and support for people experiencing menopause, the group did not take on any advocacy work or projects within the university to improve the experiences of people going through it – whereas they did actively collaborate with groups focusing on other gendered health issues including breast cancer. This may speak to an ageist bias among the student organisers, all of whom were in their twenties, and echoes the point

raised in the previous chapter that opportunities for solidarity across different axes of lived experience within the university were missed. The conversation between the two podcast presenters revealed that there is even a deficit in the level of engagement the younger generation have with their own relatives over the topic of menopause and health issues associated with non-menstruation:

> Presenter 2: My mum had a hysterectomy when I was five. So she's been on hormones for like as long as I can remember. So I remember hearing about her having to take the hormones and stuff.

> […]

> Presenter 1: So did she go through menopause then? How does that work?

> Presenter 2: No, I think she went straight onto hormones after she had a hysterectomy, so that – I'm not actually sure, maybe I should ask, "so mum, what is the situation with your stuff, organs?" (Podcast 3)

Taking on more projects or advocacy work for people going through menopause or other conditions associated with non-menstruation may not have been straightforward, however. The culture of silence and stigma around menopause is deeply engrained due to the intersection of sexism and ageism, and is rarely discussed in workplace settings (Laker and Rowson 2024). The podcast presenters commented that they had not received any education on this at all at school (whereas period education is provided in school, albeit imperfectly), and their own peri- and post-menopausal relatives had made little attempts to discuss the issue with them (podcast 3). Only one interviewee in the case study, a member of the university cleaning staff, alluded to personal experience of going through menopause (BGP.12). The interviewee did not discuss any of the potential challenges which come with going through menopause at work, or provisions that could be made within the university to assist people going through it. Their perspective on the free period products provided on campus echoed the assumptions made by BGP UEA student organisers that periods were one of the most egregious issues affecting people at the university, and that no longer having a period simply meant being liberated from this abject condition:

> [When] you weren't even expecting your period […] you think oh blimey, I've come on my period, and then you've got these [free products] and you think oh brilliant, I haven't got any on me. You can go get them. But like I say, what I'm saying is, some people, when they obviously have their periods […] the first

day is absolutely horrendous. And you can be bent over in pain and that, a lot, on the first day. But like I say, with me, I don't have them at the moment. Well, not "at the moment", I won't have them again, thank God. But um, if you do come in and you have em', at least you can go and get these [free products]. It's absolutely fantastic. (BGP.12).

This indicates that the BGP UEA case study differs somewhat from the GBCT case study, in that the group's decision to focus on pursuing change for people who menstruate was not perceived as coming at the expense of change for people who do not menstruate. In other words, tensions over incommensurability did not arise in the case study in the same way. Nonetheless, it is important to call attention to how BGP UEA participants' framing of menstruation and its associated challenges as the single-most pressing issue affecting people with a female-coded reproductive system may be reinforcing the systemic erasure of menopause, other health conditions associated with non-menstruation, and the challenges faced by older people who no longer menstruate. Opportunities to take on additional advocacy work or projects surrounding this issue remain, and could be explored by the group or other student advocacy groups in future. Of course, as with the GBCT case study, there are legitimate concerns over a grassroots group being expected to "do everything".

6.4. Concluding statements

This chapter has explored how intersectional grassroots waste innovations are engaged in shaping new systems for discarding well, taking seriously the provocation that discarding and discards cannot be eliminated, but rather, systems of discarding must be transformed to subvert oppressive power relations and contribute to building more socially just worlds. Analysis of the two case studies demonstrates that they are shaping new systems for discarding well in two significant ways.

Firstly, the GWIS discussed here offer transformative ways of living with and through waste. The case studies illustrate that intimate engagement with discards is closely tied to care, and caring for waste spills over into caring for the self and the community. This is especially significant for people who have themselves been treated as disposable under capitalist, patriarchal, ethno-nationalist, and otherwise supremacist systems, for whom a caring relationship with material waste becomes a way of gaining self-worth and pride, and a more empowered relationship with derided embodied experiences such as menstruation. In addition, the two cases emphasise conviviality and social rituals through discarding, in

a subversion of the individualisation of responsibility for discarding which dominates mainstream discourses on waste.

Secondly, GWIs confront and subvert dominant systems of classification and removal which uphold hegemonic power structures. This is a complex undertaking, and looked different in each case study. In the GBCT case, the organisation's waste prevention work challenged problematic boundary-keeping in the community based on stereotypes about authentic working-class identity. Participants in GBCT pushed back against such stereotyping, by embracing the LGBTQIA+ community and creatives who are sometimes scapegoated for gentrification, and debunking the assumption that reuse and other acts of sustainable consumption are the exclusive domain of middle-class outsiders. At the same time, dominant systems of classification and removal were not challenged consistently, and problematic assumptions about who belongs in the community, and who should be excluded, were occasionally reinforced in the messy everyday realities of the organisation's work.

BGP UEA was on the surface a more straightforward case, in the way that they consistently and proactively challenged dominant systems of classifying who does and does not belong in the category of "person who menstruates" based on transphobic and gender essentialist ideas. However, even despite participants' best intentions, they occasionally reverted to trans-exclusionary gendered language and framings – but displayed a level of self-reflexivity about this, and a critical awareness of how institutions such as the medical establishment reinforce this. In both cases, subverting oppressive systems of classification should not be considered an all-or-nothing matter, and perfection is not required for a positive impact to be made. Efforts should continually be made to challenge the stereotypes on which dominant systems of classification are built, and GWIs should avoid complacency in this regard, remaining sensitive to how oppressive systems of separating insiders from outsiders can be internalized and inadvertently reinforced.

Lastly, this chapter has attended to the ways that both case studies' efforts to shape transformative systems for discarding well were incomplete, and raised issues of incommensurability in pursuing certain socially-just outcomes over others. It was evident in both cases that there were leftover discards not accounted for in the work of each group, and moreover, action taken to discard differently and better in certain ways inadvertently creates new iterations of waste with attendant complex social-material relations, and even new social and environmental injustices. Questions then remain over how GWIs can be accountable to these new iterations of waste, and where opportunities may lie for them to purse further interventions – though neither case study showed much evidence of grappling with these

questions, no doubt due in part to the intensive and demanding nature of their everyday work. Finally, I have discussed how each of the GWIs in this chapter invariably discarded certain perspectives in prioritising particular social justice agendas. They showed differing levels of critical awareness about this, with participants in GBCT showing more concern over the organisation's inability to cater to marginalised cisgender men than BGP UEA showed awareness of their lack of attention to other challenges facing women and gender minorities who do not menstruate for various reasons, such as menopause. This does not detract from the value of each group's work to advance social justice along certain axes. However, it does highlight gaps and opportunities for pursuing further and future change-making, and areas where other groups with different but complimentary priorities could contribute.

Chapter 7: Conclusion – Intersectional and disruptive strategies for discarding well in an age of disposability.

This thesis has explored what intersectional, radically disruptive strategies for confronting waste can look like, and how grassroots innovations can develop such strategies in an age of rapidly accelerating environmental and social crises. As I have argued throughout the thesis, the globally dominant, racial capitalist, growth-driven economy has led to an age of disposability; where materials, human lives, and more-than-human lives are systematically discarded in order to uphold linear models of resource extraction, production, consumption, and wasting. Transformative strategies are needed to confront these deep injustices, going beyond the established circular economy and behaviour change models favoured in current policy approaches. Grassroots innovations have proven to have a great deal of potential for putting forward alternative and transformative ways of confronting waste: through innovating to prevent waste occurring, and through developing new systems which discard well instead of harmfully. This thesis has addressed the following research questions:

RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

RQ2: What does intersectional organising look like in grassroots waste innovations?

RQ3: How do intersectional grassroots waste innovations help shape new systems for discarding well?

In this chapter – the final chapter of this thesis – I will summarise the findings of this investigation of intersectional grassroots waste innovations. I will then outline the important empirical and conceptual contributions this thesis has made to research on transformative interventions into systems of consumption and discarding, and the value of my novel conceptual framework combining

intersectionality theory and discard studies. Lastly, I will discuss some key implications of the research, and how these weave into a new research agenda for disruptive and intersectional waste studies.

7.1. Summary of findings

I began this thesis with an overview of the multidimensional nature of contemporary crises of waste, and outlined the case for viewing waste as an intersectional phenomenon, bridging multiple axes of social and ecological injustice. I argued that effective interventions into the urgent challenge of excess waste and its myriad harms must therefore also be intersectional, and must take account of the need for justice and liberation from multiple forms of oppression, including capitalism, white supremacy, patriarchy, classism, colonialism, and all other supremacist systems. In addition, I introduced the commitment in this thesis to challenging perceptions of waste and discarding as fundamentally abject and degrading, and instead introduced the notion that waste is not inherently bad, but it is always tied to power (Liboiron and Lepawsky 2022). I argued that new systems of discarding can and should be put in place to subvert existing oppressive power relations, instead of seeking to eradicate waste entirely (which in any case is neither possible nor desirable).

In Chapter 2, I outlined how existing mainstream strategies for confronting the crises of waste are largely failing to adopt intersectional approaches, and are neglecting the need for radical transformation of existing systems of discarding which are rooted in oppression. In recognition of the need for transformative systems for *discarding well* in the context of intersecting, oppressive, and overly wasteful systems, I outlined a novel conceptual framework, combining insights from intersectionality theory and discard studies. The four themes of the conceptual framework, which have guided my research and analysis in this thesis, are: (1) a multidimensional analysis of harm, (2) a multidimensional approach to resistance, (3) a focus on the importance of good relations, and (4) rejecting essentialism. I identified grassroots waste innovations as a domain with the potential to address waste in an intersectional and disruptive way, taking account of these four critical themes. However, to date there has been insufficient research into the extent to which GWIs take an intersectional approach to issues of waste in Global Minority contexts such as the UK, and existing evidence on GWIs' relationship with intersecting social justice issues such as gender and racial equality and the abolition of class hierarchies presents a less than inspiring picture. Further research was therefore needed to explore the extent to which GWIs are engaging with intersectionality in the UK, or have the potential to do so.

Having outlined the rationale and aims of this thesis, and after detailing the critical methodological starting points and methods I have used (with a focus on abolitionism, intersectional feminism and scholar activism), I then turned to the first research question of this thesis:

RQ1: What kinds of grassroots innovations exist for reducing waste in the UK, and to what extent are they engaged with intersectionality?

Chapter 4 addressed this question, discussing the findings of an interview-based, cross-sectional mapping study which aimed to give an overview of the existing field of GWIs in the UK and their engagement with intersectionality. Building on, and adding new insights to, previous studies of community waste projects (Skarp 2021, Sharp and Luckin 2006, Luckin and Sharp 2005), I identified the primary waste streams GWIs work across: textiles, wood, plastic, food, e-waste, furniture and white goods, bicycles, tools and household items, and miscellaneous items including paint, paper, and children's toys. The research findings showed that most GWIs take action at the "Reduce and Reuse" and "Preparation for Reuse" levels of the traditional Waste Hierarchy used to guide waste management policy, but a few GWIs can be identified taking action at the "Refuse/Rethink/Redesign" level of the adapted Zero Waste Hierarchy, showing evidence that the field of community waste projects has expanded since earlier studies. I then addressed GWIs' engagement with intersectionality, finding that although an intersectional approach is not typical for GWIs in the UK, some notable exceptions exist. Intersectionality can be expressed through framings, project design, and coalition building. However, there are significant barriers which prevent GWIs from being able to organise in a more actively intersectional way, and sometimes a gap occurs between GWI participants adopting intersectional framings in how they speak about their work, and their ability to design projects and build intersectional coalitions. The barriers I identified are: (1) concern over conflicting values between GWIs and wider publics, (2) funding challenges, and (3) the risk of tokenising people from marginalised groups in an attempt to increase diversity. Whilst some of these challenges are well-recognised for community sustainability projects, my findings show that challenges occur not only for the replicability or scalability of GWIs, but also for their ability to organise in an actively intersectional way.

Following the mapping study, which established that intersectional GWIs do indeed exist in the UK despite being less common, there was a need for more in-depth analysis of what an intersectional approach looks like for GWIs on the ground. This led to the second research question of this thesis:

RQ2: What does intersectional organising look like in grassroots waste innovations?

Chapter 5 addressed this question, using data from two ethnographic case studies: Govanhill Baths Community Trust (with its two waste-prevention projects, the Rags to Riches reuse hub and the People's Pantry community food hub), and Bloody Good Period at the University of East Anglia. I gave a detailed introduction to each case study and then analysed them in relation to their use of intersectional framings, project design and coalition building, and with reference to my conceptual framework. While both cases showed some or considerable evidence of intersectional framings, project design, and coalition building, my comparisons in this regard illustrate the diversity and context-specific nature of intersectionality for GWIs, as each case had a distinct and unique approach depending on which systems of oppression their work was positioned in relation to, and the embodied and lived experiences of participants.

For example, GBCT was guided by its situated context in a working-class and multi-racial urban Scottish community with a fraught history of being left behind by urban development agendas. The way that their waste work was framed and designed, and the way that they built active coalitions with other grassroots groups and campaigns in the local area, was informed by an understanding of how waste is intertwined with these histories and ongoing oppressive dynamics. The second case study, BGP UEA, was guided by participants' understanding of how menstrual inequity arises from intersecting structures of patriarchy, heterosexism, transphobia, and racism. Participants described embodied experiences of the detrimental effects of these systems, and this percolated the group's framings of menstrual inequity and the case for switching from disposable to reusable period products as both a pro-environmental and intersectional feminist act. These political threads ran through the creative and provocative ways the group designed their projects. However, I also found that intersectional framings were not used consistently, and the group showed limited evidence of intersectional coalition building beyond the student body.

My comparative analysis of the two case studies illustrated the importance of self-reflexivity and longevity for enabling GWIs to take an intersectional approach, and demonstrated that the attitudes of external organisations can be a barrier for GWIs attempting to organise in an intersectional way. Despite the data showing mixed results in terms of the two cases' ability to consistently organise in an intersectional way, I maintained that intersectionality is never an all-or-nothing matter. A lack of engagement with some intersections does not invalidate GWIs' ability to demonstrate strong intersectional organising in other ways.

Lastly, Chapter 6 addressed the third research question of this thesis:

RQ3: How do intersectional grassroots waste innovations help shape new systems for

      discarding well?

My research demonstrates that GWIs have a compelling ability to shape new systems which discard well instead of discarding harmfully. Moreover, it is the *intersectionality* of GWIs – their ability to engage with and address multiple interconnected systems of power and oppression in a joined up way – which makes them well-positioned to do this. This is because GWIs which are sensitised to intersectionality are better able to confront and subvert the multiple oppressive dynamics embedded in mainstream ways of wasting. Returning to the data from the two case studies, I argued that intersectional GWIs shape new systems for discarding well in two important ways. Firstly, by revealing transformative ways of living with and through waste, particularly through care and conviviality. Following calls for more attention to be given to the new socio-material relations engendered through circular practices (Hobson et al. 2020), the GBCT case study revealed how participants gained a sense of self-worth and pride in community through caring for discards. This was especially significant in the context of a marginalised community where residents face many intersecting vulnerabilities, and where important community resources, in addition to the people themselves, had been treated as disposable under neoliberal, capitalist, and ethno-nationalist political agendas. In addition, the BGP UEA case study revealed how changing practices around menstruation (itself a form of bodily discarding) was a way of developing "body literacy" (Bobel 2010: 81) and caring for oneself and one's health and vitality, subverting the societal stigma against bodies which deviate from the patriarchal, masculine, heteronormative, white supremacist standard. With that said, menstruation itself was still mostly viewed as fundamentally undesirable, pointing to the difficulty of totally transforming how this embodied process of discarding is experienced. Both case studies showed how working with discards, and discarding itself, can be processes which foster conviviality, solidarity, and new social rituals – a challenge to the individualising nature of mainstream discourses on waste and personal responsibility.

The second key finding discussed in Chapter 6 was that intersectional GWIs confront and subvert dominant systems of classification and removal, which essentialise identity and eliminate diversity. GBCT did this by pushing back against stereotypes around authentic working-class Glaswegian identities, which create systems of exclusion at the expense of LGBTQIA+ people, young people, and those with an interest in arts, culture, and sustainability. However, subversions of dominant systems of classification and removal did not happen consistently, and the sorting of community insiders from outsiders occasionally occurred in ways which upheld existing biases and prejudice. With regards to BGP UEA, I

elaborated on the discussion in Chapter 5 of the group's efforts to challenge gender essentialist notions of who should be included in the category of "person who menstruates" – a debate which raises conflicting ideas about gender and identity. The group made significant efforts to be inclusive of transgender people who menstruate, but occasionally found that inclusive language slipped in the context of medical discussions – leading to ambiguities around how to navigate trans-inclusivity when working within broader institutional structures which uphold rigid classificatory systems.

Despite these promising findings, analysis of the case studies also gave credence to Liboiron and Lepawsky's theorising (2022) on how new systems of discarding are always incomplete and encounter issues of incommensurability. Incompleteness in both case studies occurred in relation to the material afterlives of the discards each group worked with. BGP UEA showed little evidence of attending to the afterlives of menstrual blood and disposable period products labelled as "sustainable". GBCT participants showed some awareness of the new iterations of waste produced in their reuse projects, but there was little clarity over how these new discards should be confronted. Lastly, I detailed how each GWI created new exclusions and discarded some perspectives in favour of others in their work to create new systems of discarding which addressed injustice across multiple – but not *all* – axes. In the case of GBCT, participants expressed regret that their work was not catering to the complex needs of older, working-class cisgender men, but felt constrained in their ability to take this on. In the case of BGP UEA, participants showed some awareness of challenges faced by people who do not or no longer menstruate, such as those going through peri-menopause, but the group was not engaged in advocacy work around these issues, with most participants affirming the view that periods were one of the most pressing equity issues affecting people at the university, and that the condition of non-menstruation was therefore automatically one of privilege, regardless of the more nuanced reality for many people. I argued that these issues of incompleteness and incommensurability do not detract from the important contribution GWIs can make to intersectional, transformative new systems for discarding, but they show where missed opportunities and future opportunities may lie.

7.2. Contributions

This thesis has made novel contributions to the study of waste and systems of discarding from an intersectional perspective, with a specific focus on the role of grassroots innovations in shaping transformative systems of discarding which prioritise social and environmental justice. Waste is widely considered to be a major challenge for a sustainable and socially just future, but existing mainstream approaches which dominate policy and global development agendas have neglected both the

importance of addressing waste as an intersectional issue, and the critical role that can be played by grassroots and community actors. Therefore, this thesis is an important intervention into this increasingly urgent field. In the following section, I will summarise firstly the empirical contributions made by this thesis and my novel approach to studying grassroots waste innovations, and secondly, the conceptual contributions of bringing together and synthesising intersectionality and discard studies for the first time.

7.2.1. Empirical contributions

This thesis has built on previous studies of community action on waste in the UK, which explored the scope, strategies, and significance of community waste projects for reducing excess waste, mobilising communities around environmental values, and contributing to the development of post-capitalist waste systems (Skarp 2021, Sharp and Luckin 2006, Luckin and Sharp 2005). Whilst it was clear that most, if not all, community waste projects aim to have a positive social as well as environmental impact through their work (Skarp 2021), there was a need to explore how grassroots waste innovations approach waste from an intersectional perspective, taking account of how waste is tied to multiple oppressive systems – including capitalism, but also the other axes of power and oppression intertwined with the predominant capitalist waste system, such as racism, patriarchy, heterosexism, classism, ethno-nationalism, and colonialism. In addition, although there are a number of studies which do situate waste and waste-work in relation to multiple, complex, intersecting dynamics of power and oppression, these studies mostly arise from Global Majority contexts where informal waste work has a much more prominent role in local waste systems, leading to more critical attention on the role of grassroots actors (e.g. Wittmer 2021, Zapata-Campos et al. 2022, Millar 2020). In the Global Minority world (e.g. in the UK), such intersectional perspectives on grassroots waste innovation were lacking.

This thesis has therefore expanded critical knowledge of the role of the grassroots in shaping new waste systems and practices in the UK, with a focus on the contribution GWIs can make to political struggles for justice across multiple axes of oppression. My initial mapping study, discussed in Chapter 4, drew on empirical data from a wide range of grassroots actors working across multiple waste streams, as well as the perspectives of mainstream waste regime actors, to prove that GWIs which take an intersectional approach to waste do indeed exist, and that there are a number of key ways they go about this. At the same time, there are specific barriers and challenges which prevent GWIs from being able to take a more intersectional approach. Chapter 5 then provided in-depth discussion of two empirical case studies to better illuminate what intersectional organising looks like on the ground for two very different GWIs

in the UK, generating additional novel insights about the nature and challenges of this work. Chapter 6 further showed how GWIs can and do make significant interventions to shape new systems for discarding well, pushing back against multiple oppressive systems.

In addition to revealing novel insights about how GWIs take on intersectionality in their work, this thesis has also expanded existing definitions of what constitutes innovative waste-work, by showing that grassroots groups are taking action to prevent waste through *rethinking consumption itself.* This diverges from existing studies of community waste action, which have exclusively focused on reuse, repair, recycling, and litter-picking – in other words, preventing waste by working with goods and materials that have already been consumed. I chose to select one case study which promoted reusable alternatives to single-use period products as an interesting example of this, and I hope this can inspire future work on initiatives which challenge primary consumption, for example "plastic-free communities" and protest groups calling for boycotts of fast fashion and other harmful consumer industries.

7.2.2. Theoretical contributions

As discussed in Chapter 2, there are many natural affinities between the two bodies of literature which formed the conceptual framework of this thesis: intersectionality theory and discard studies. However, to the best of my knowledge there were no studies explicitly exploring these links, or bringing together the two bodies of theory in a more intentional way. Therefore, in this thesis I have developed a novel conceptual framework for the study of waste interventions, showing the value of bringing together two exciting critical fields which are both oriented towards challenging unjust systems. Distilling insights from these two expansive bodies of literature, I identified four core sensibilities which are found in both intersectionality and discard studies. These can be synthesised to explore waste challenges and interventions from an intersectional, disruptive perspective, and are summarised as follows.

- **Multidimensional analysis of harm:** Understanding how multiple axes of power and oppression intersect to produce specific power structures, and how discarding and waste are always tied to such structures.

- **Multidimensional approaches to resistance:** Recognising the need to transform multiple oppressive systems in seeking just and effective changes. Connecting micro and macro scales of resistance, and emphasising the value of grassroots action for meaningful system change.

- **The importance of good relations:** The development of more just systems requires solidarity, coalition-building, accountability, honoring more-than-human entanglements, and navigating the tensions and incommensurabilities which arise when undertaking this work.

- **Rejecting essentialism:** The categories used to uphold systems of discarding and the hierarchies which order social life are constructed, rely upon stereotypes, and reflect dominant power relations which are often oppressive. Essentialism should be challenged, while at the same time acknowledging how dominant categories are deeply entrenched in social institutions and shape lived experience.

By weaving these four themes throughout the research findings and discussion, this thesis has demonstrated how both intersectionality and discard studies can help in approaching urgent questions of waste and discarding in a radical, liberation-focused way. The conceptual approach developed here can be applied in a wide range of future studies of waste and systems of discarding across multiple scales and subjects.

My use of intersectionality theory in thesis adds to an emerging body of scholarship addressing contemporary sustainability transition challenges through an intersectional lens (e.g. Sharma et al. 2023, Amorin-Maia et al. 2022, Aruga et al. 2024, Mejía-Montero et al. 2023). These studies are critical for countering the blind spots in techno-optimist approaches to sustainability transitions, which often neglect a deeper analysis of power, and perpetuate dominant biases. Intersectionality theory also helps scholars attend to social justice for the communities most directly impacted by sustainability agendas, especially those already facing multiple systemic marginalisations. This thesis compliments existing work in this space, and adds a critical intersectional perspective on waste, to compliment intersectional work being done on energy transitions, smart home technology, urban transformation, and more.

I have adopted a specific approach to using intersectionality theory, which diverges from other interpretations, in that I focus primarily on analysing *structures of harm* and the *strategies* of groups organising against these structures, rather than grounding my analysis with the experiences of individuals at marginalised social locations (see Chapter 3). I am by no means the first to interpret intersectionality theory in this way (see Cho et al. 2013), and I acknowledge that there are highly valid critiques of this expansive interpretation of a theory which was originally rooted in centring the specific experiences of Black women and other Women of Colour (Chantler and Thiara 2017). At the same time,

it is my hope that by adapting intersectionality theory for studying the multidimensional nature of modern waste, I have demonstrated the many inexhaustive uses of intersectionality theory and its ongoing value, particularly for critiquing institutional power and the configurations of resource regimes driving ecological breakdown and accelerating social crises. The use of intersectionality in this thesis aims to counteract its co-optation by neoliberal institutions and corporations (Jibrin and Salem 2015).

Finally, I have made important contributions to the dynamic field of discard studies, particularly in taking up the challenge posed by Liboiron and Lepawsky (2022), Murphy (2017), and others, to look beyond the misleading and dangerous notion that waste can be eliminated, and instead attend to how communities live with and through waste to prefigure more liberated futures. Complimenting studies of "third nature" and the new lifeworlds created through discards and their entanglements (Arnall and Kothari 2020, Akuoko et al. 2023), I have focused on how grassroots groups practice care, conviviality, and community-building with and through waste. This is a radical challenge to mainstream waste and resources management agendas and more traditional theoretical perspectives, which conceptualise waste as either an economic resource or a symbolic representation of abjection (Moore 2012, Hawkins 2006). I have shown how concepts developed in discard studies and related critical theory, such as the politics of disposable life (Vergès 2021), interact with structures of capitalist, white supremacist, patriarchal, and queerphobic oppression in locally situated contexts. The theoretical contributions of this thesis lay the groundwork for further studies which can take an intersectional, disruptive approach to waste and systems of discarding.

7.3. Implications and future research agenda

In this thesis I have endeavored to show the importance of intersectional and disruptive responses to addressing waste as one of the most pressing global issues of our time. It is clear that existing mainstream approaches are inadequate for the scale and complexity of the challenge, and furthermore, existing approaches, including growth-oriented circular economy models, are failing to deliver socially just outcomes across a range of interconnected struggles. The findings discussed in this thesis have several key implications for waste and resources management and research. First, waste challenges must be understood through their entanglements with historical and ongoing systems of power and oppression. Second, critical perspectives on waste, and policy and governance approaches, must move beyond viewing waste solely as a potential economic resource. Third, the transformative potential of

grassroots action on waste must be recognized, looking beyond questions of upscaling and replication to focus instead on the plurality of intersectional, context-specific interventions the grassroots can deliver. Fourth, attention must be given to the possibilities for living with and through waste in the age of disposability, given that waste cannot be completely eliminated. I elaborate on each of these implications below, and indicate how further research should be carried out to advance an agenda of disruptive, intersectional waste studies. Lastly, I return to the case made in this thesis for grounding waste research in activism (in its myriad forms), and the implications of this for how further research should be done.

7.3.1. Understanding waste challenges through their entanglements with systems of power and oppression

A central point of departure in this thesis has been that modern crises of waste cannot be disentangled from historical and ongoing systems of power and oppression. These include racial capitalism (the extraction of resources for capital accumulation *through* racial oppression and intersecting systems of domination) (Yusoff 2018), colonialism and neo-colonialism (Andrews 2020), patriarchy, and other systems which render certain environments, bodies, and lives disposable (Liboiron 2021, Vergès 2021). Yet it is still uncommon for critical studies of waste – let alone policy discussions and popular interventions – to address these entanglements. Without doing so however, it is inevitable that oppressive dynamics will be reproduced, as I argued in Chapter 2. Intersectional analysis of waste is more important than ever given the rapid growth of certain extractive industries and their associated wastes. E-waste is a notable example: a case where resource extraction of minerals such as cobalt, under the guise of supporting sustainability transitions in the Global Minority world, is fueling new forms of neo-colonial land-grabbing, racialised subjugation, and human rights abuses throughout the supply chain and in the processing of waste (Sovacool et al. 2021, Kelbessa 2023, Udell 2023). These are deep injustices rooted in systemic oppression which cannot be resolved through more efficient recycling alone, but instead require a fundamental shift in power relations and the abolition of oppressive structures, as the global economy transitions to new low-carbon technologies.

I therefore contend that future studies of waste challenges, and policy and governance efforts in this area, must account for these entanglements, and must lift the lid on how ongoing dynamics of power and oppression influence the way that waste is generated, circulates, and is experienced. This may require developing interventions which take a broader approach to transforming oppressive conditions, for example through land reform, investment in local economies and food sovereignty, and stronger

democratic processes (e.g. Liboiron and Cotter 2023). It also entails looking beyond waste as an end-of-pipe phenomenon, and extending the analytical focus to processes of resource extraction, production, and consumption, studying the ideologies and mechanisms underpinning structures of harm (Vandenberg 2024, Tuck and Yang 2014), and regulating or proscribing harmful industries.

Tracing the complex entanglements of power and oppression for waste materials should be a priority for future waste-focused research. Indeed, a number of groundbreaking studies are already adopting this approach, particularly in relation to analysing the colonial entanglements of plastic waste and pollution, for example in Aotearoa New Zealand (Peryman et al. 2024), Te Moananui [the Pacific Islands] (Fuller et al. 2022) and Canada (Liboiron 2021). To the best of my knowledge however, research has yet to be produced which explores the colonial entanglements of plastic or other forms of waste in the context of historical colonial powers like Britain, which have been major state players in the development of modern industrial capitalism, global flows of capital, and many of the extractive industries which are driving contemporary waste patterns today. Future research should combine archival work with innovative methodologies such as a "follow-the-thing" approach (Cook 2004) and citizen science, e.g. in the form of beach cleans and waste audits (GAIA 2019). Generating this critical knowledge about the intersectional entanglements of waste and wasting in a British context would help to guide discourses around the most effective and just interventions, laying the groundwork for discussion of how restorative justice can be at the center of future waste interventions and policy.

7.3.2. Beyond waste-as-resource

As discussed in Chapter 2, existing strategies for tackling the environmental and social crises of waste seek to achieve this by treating waste as an economic resource, with the aim of keeping waste materials circulating in the capitalist economy for as long as further economic value can be extracted. This is the normative position underpinning most mainstream understandings of the circular economy, and it is flawed for a multitude of reasons. Not only is the reframing of waste as resource failing to achieve tangible reductions in the ecological footprint of the global materials economy (MacBride 2019, Zink and Geyer 2017), and creating new injustices which exacerbate existing oppressive power structures (Barrie et al. 2022, Bul 2023), but it also entrenches a narrow paradigm for engaging with discards, and ignores questions of what happens to discards which cannot be revalorised according to capitalist logics. This means that research and policy agendas have largely overlooked the non-capitalist forms of value discards can have, for example as tools for community wellbeing, mutual aid, and activism (see Chapter

5). An over-focus on waste-as-resource also means that opportunities are missed for more research and experimentation into the possibilities for transitioning to a low-consumption, sufficiency-based society with a significantly reduced material throughput – even though there is now substantial evidence that this is the only plausible way to steer the global economy within planetary boundaries (Vogel and Hickel 2023, Akenji et al. 2021). In future, policymakers, funding bodies, and other stakeholders should be willing to support and give funding to a greater range of projects and initiatives which pursue the non-capitalist forms of value waste can have, and the non-quantifiable benefits of living differently in order to consume and waste less.

Future research on waste and on circular, regenerative resource use should also investigate how systems of discarding can be aligned with non-capitalist principles and philosophies. As Savini (2023) has argued, there is a need for greater alignment of circular economy thinking with degrowth, and future research should investigate what resource use can look like in a degrowth economy, and how discards might be engaged with differently in that scenario. We should not stop there, however. Degrowth is not the only non-capitalist paradigm which could steer more ecologically and socially just resources use and waste practices (Nirmal and Rocheleau 2019). Decolonial philosophies and political strategies arising from Global Majority and Indigenous contexts may also offer transformative ways of conceptualising, responding and relating to waste – from the collectivist and anti-hierarchical philosophies of Buen Vivir in Latin America to the Ubuntu "I am because we are" philosophy of ecological and social codependence arising from Southern African traditions and anti-colonial resistance (Lorek et al. 2023, Chilisa 2017). Although this thesis has focused on the UK context and has not placed much emphasis on decolonial and philosophies, future conceptual and empirical explorations could explore and develop these links.

7.3.3. Transformative and pluralistic grassroots action

This thesis has gone against the grain of conventional understandings of the role of citizens in transitioning to sustainable waste systems, which limit citizens to the role of individual consumers, passive recipients of top-down change, or barriers to change (Hobson et al. 2021, Vandenberg 2024). By making grassroots innovations the center of this study of disruptive and intersectional approaches to waste, I have joined a growing number of scholars who recognise the agency, expertise, and creative capacities of communities, and the ability of people at a grassroots level to respond to on-the-ground challenges in a way that governments, institutions, and corporations are unable or unwilling to do (e.g. Smith and Seyfang 2013, Smith et al. 2017, Gupta et al. 2003). Grassroots innovation as a critical field

calls for a redefining of innovation, shifting the focus away from patriarchal, white supremacist, imperialist and elitist ideas of technological innovation, to the overlooked but integral forms of innovation arising from the everyday practices and social relations of often marginalised communities – including women and gender minorities, Global Majority and working-class communities.

Whilst previous studies have explored GIs in relation to a wide range of themes in sustainability transitions, including possibilities for diffusion, impact on mainstream resource regimes, and relationships with capitalist structures (see Chapter 2.3.), my thesis has opened up a new area of critical enquiry in the study of GIs: intersectionality. I have intentionally moved beyond conventional questions of upscaling and replication, and have focused instead on how GIs are situated in relation to multiple intersecting social justice issues and struggles for liberation. In adopting this novel approach, I believe I have offered further evidence of the deep significance of GIs in a world-system dictated by neo-colonial and extractive-capitalist modes of innovation and production (Tsing 2015, Patel and Moore 2018). I have given critical attention to aspects of GIs which have been typically neglected in the literature, such as how they are situated in relation to gender, class, race, citizenship and queerness. There is a need for further research to explore the avenues I have opened up. Case studies which take an intersectional approach to analysing the social justice elements of GIs in different contexts are very much needed. Indeed, one of the limitations of this thesis is that there are a number of axes of injustice I have not given adequate attention to, such as disability and neurodivergence. I hope that future studies can take up this task.

Furthermore, there is a need for further studies which continue to map GWIs' engagement with intersectional ideas and organising strategies as they develop, and the networks they form, especially at a time of political instability and increasing polarisation. In addition, given that a core finding of this thesis has been that intersectional organising is always context specific and determined by locally salient and embodied experiences of systems of power and oppression, future case study research should examine what intersectional organising looks like in differently situated GWIs, to expand this picture. Further studies in this area should contribute to knowledge of a plurality of grassroots-led strategies for wasting differently, and should emphasise the specific and irreducible qualities of these strategies, while also supporting broad solidarity networks across intersecting struggles.

In addition, this thesis has highlighted underexplored types of grassroots waste innovation – particularly regarding rethinking consumption itself. Future studies are needed which investigate how grassroots actors are leading the charge to turn away from destructive modes of primary consumption, including

through protest groups, targeted boycotts, etc. These future studies would complement the emerging literature on "exnovation" (the scaling back and /or abolition of harmful technologies and industries) as a core component of sustainability transitions (Fossati et al. 2022, Heyden et al. 2017), but would add much needed perspectives on societal agency and the role of communities in facilitating and driving these moves.

7.3.4. Emancipatory possibilities for living with and through waste in the age of disposability

This thesis has built upon the radical ideas brought forth by scholars such as Liboiron (2021, 2016), Murphy (2017) and De Wolff (2017), who demonstrate that the discards already existing in the world have permeated and altered natural systems, nature-cultures, human bodies and lives in ways which cannot simply be erased. Indeed, as consensus grows that the Earth has entered a new geological era termed the Anthropocene, and new iterations of discards – particularly plastics, microplastics, and Persistent Organic Pollutants – circulate and persist on timescales unprecedented in history, the necessity of finding honest and bold ways of confronting the inescapable nature of modern waste is increasingly urgent. This does not mean that efforts to curtail and radically reduce waste should be abandoned. On the contrary, the need to rapidly scale back primary production, phase-out the most polluting industries, and transform economy and society to drastically reduce material throughput is indisputable (Hickel et al. 2022, Spangenberg 2014). Discard studies scholars urge that attention must not stray from the industrial and policy actors with the biggest impact on creating the conditions which lead to catastrophic waste crises (Liboiron and Lepawsky 2022, Liboiron 2013). Further research, political action, and grassroots campaigning to target the upstream drivers of waste will continue to be urgently needed, especially to counter the co-optation of global efforts to tackle pollution by multinational corporations – themselves some of the worst offenders in driving the waste crisis (Vanderberg 2024). Alongside this action, however, it is vital that we attend to how communities live with and through waste in everyday life, moving beyond damage-centered research paradigms (Tuck 2009) to explore the agency and innovative capacity of communities navigating altered nature-cultures. This would offer novel perspectives on the many roles for society and communities in transitions to a less wasteful and more sustainable world, particularly the new social-material relations which may be engendered in this transition (Hobson et al. 2021).

As I argued in Chapter 6, communities can and do find innovative ways of relating to discards and living with and through waste. In doing so, they can subvert the capitalist, racist, heteronormative, patriarchal, classist, and exploitative systems which discard things and people alike. Doing so can create transformative relationships with the self, the community, and with the more-than-human entities also implicated in these practices. However, my analysis of the case studies in this thesis also shows that these radical waste practices are by no means uncontentious or consistent, and can be difficult to maintain in the face of pressures from dominant resource regimes and power structures. Therefore, further research should explore these dynamics in greater depth, particularly through longitudinal case study research in different contexts where different sets of power relations, histories, and embodied experiences are salient.

In addition, there is a need for research which takes an intersectional perspective to understanding how new and under-researched human-waste entanglements are positioned in relation to dominant ideologies. For example, how are concerns around the impact of chemical wastes and endocrine disrupting chemicals positioned in relation to patriarchal gender roles, anxieties around falling birth rates, and gender-essentialist and transphobic ideas about the rigid boundaries of sex and gender (Shadaan and Murphy 2020)? This unexplored area calls for deeply interdisciplinary and intersectional research, combining perspectives from gender studies, science and technology studies, discard studies, endocrinology, and environmental and marine sciences, among others. The complex and boundary-defying nature of modern waste and the climate and ecological emergency necessitates such path-breaking approaches, which work across perspectives in the natural sciences, social sciences, activism and politics, and transcend a single-axis view of justice to understand how multiple systems interact.

7.3.5. Activist research for a better world

In Chapter 3 I discussed how a commitment to abolitionism, intersectional feminism, and scholar activism have guided this thesis. Although I have not carried out full action research for this PhD, and have faced constraints in the extent to which I was able to have a sustained relationship with the change-making projects with whom I conducted my research, I maintain that academic research into waste and transformative responses to waste should seek to make an active contribution to change, and researchers should recognise that we are not detached from community justice struggles. Future research on waste, and in particular grassroots innovations and mobilisations, should adopt action-

based approaches, becoming embedded – to the extent that is possible – in on-the-ground attempts to create alternative systems for wasting well.

In a discussion of how best to undertake anti-colonial waste research, scholar activist Tina Ngata (Aotearoa New Zealand) stresses the importance of "starting where you are [which is] pivotal for understanding your distinct colonial context, as well as the basis upon which to grow integrity in other contexts" (Ngata and Liboiron 2020, no page ref.). Waste researchers should take this seriously, and should turn an analytical gaze upon our own locally situated contexts, seeking to understand the mechanisms and power structures determining waste patterns and practices around us, as well as the many forms of community-based action already taking place. This approach to "starting where you are" also allows more opportunity for accountability and practicing good relations during and beyond the research project, for example through community peer review (Liboiron 2021: 138). Furthermore, developing strong relationships and connections with grassroots action locally means researchers have an opportunity to contribute to change not only through research – which is not always needed or welcomed by communities – but as citizens, who are also implicated in social justice struggles (Liboiron and Ngata 2020, Gillan and Pickerell 2012). Reconceptualising research methods and guiding principles in this way also challenges many deeply entrenched and destructive norms within academia, such as frequent flying for data collection and to attend conferences and networking events, which places academics in an elite global minority of high carbon emitters – and is completely at odds with the values we typically espouse around having a positive impact on society (Heilman 2019).

7.4. A word in closing

There is much work to be done to dismantle the power structures driving present-day global waste crises. In writing this thesis I have tried to take a stance of active hope, even though the odds may seem stacked against transformative change. Undoubtedly, reversing the global trend of accelerating resource use is a monumental task, as is the inseparable task of fighting against racial capitalism, patriarchy, heterosexism, colonialism, and the politics of disposability which allow countless lives to be wasted in the pursuit of capital accumulation and the consolidation of supremacist political systems. This task requires strong international coalitions of social movements, progressive legislators willing to take on the interests of hugely influential multi-national corporations, and everyday innovators, agitators and educators undertaking transformative work across society. Although many of the deep systemic changes

that are needed often feel out of reach, giving in and accepting an increasingly destructive status quo is not an option. This is already known to the countless oppressed peoples around the world in active resistance for their survival. Yet, in approaching this research project, I have maintained that resistance is not simply a case of refusing to go down without a fight. Collective efforts to resist systems of harm, and to innovate alternative ways of living with each other and with our more-than-human relations (including discards), are *generative.* They are a source of power, especially for people who are often depicted as powerless.

Grassroots innovations, which make small but meaningful changes to how resources are accessed and used, and how discarding is performed, matter. Not only in their ability to prevent resources from going to waste, or to prefigure and potentially influence postcapitalist resource regimes – they matter in their ability to foster collective understandings of the multidimensional nature of social and environmental harm, to provide a conduit for resistance, to facilitate strong community relations rooted in solidarity, and to challenge the constricting and oppressive ideologies used to order and categorise life.

I write this in the weeks leading up to the 2024 UK General Election. The prospect of a long overdue change of government spells potential possibilities for improved living conditions in Britain, and some modest – if insufficient – progress towards decarbonisation. At the same time, any optimism is overshadowed by increasingly hateful rhetoric from the political right targeting immigration and demonising Global Majority groups, attacks from across the mainstream political spectrum on LGBTQ+ rights, the resurgence of regressive biological-essentialist ideologies which target transgender people while also threatening all of our liberation, and a steadfast refusal of both major political parties to condemn the genocide of Palestinians and support a ceasefire and end to occupation in Palestinian Lands. The realities of climate and ecological breakdown are now impossible to deny, as is the failure of national and international climate governance efforts. The political fault lines surrounding these issues have led many to feel increasingly disillusioned with mainstream politics and institutions, and to recognise that our best hope lies in each other. In a time of increasing cruelty and an uncertain future, the grassroots as a sphere for innovation, action, and solidarity has never been more important.

In closing, I will not end this thesis by simply echoing standard appeals to national and local government and influential business actors to increase their funding and support for grassroots innovations. Whilst there is undoubtedly a need for more secure, open, and less prescriptive funding to help grassroots innovations overcome many of the practical barriers they face – and moves in this direction would be welcome – I believe that there are more significant messages to be taken from this thesis. Principally,

there is a need for us all to recognise our fundamental interdependence with each other, and our embeddedness in communities, ecosystems, and the socio-material lifeworlds created by the things we consume and discard. This is as true for government ministers, CEOs, academics and waste policy advisors as it is for the volunteers and precariously employed workers taking action at a grassroots level to make small but important contributions to dealing with waste in a just way. Whatever constellations of privilege and vulnerability we have, unjust structures harm us all, even if indirectly, and we all benefit when these structures are overturned. We all have opportunities to contribute to this work, not just through our jobs (which are often entrenched in the same systems which need to be overturned), but also in our everyday lives, the causes we show up for, and the relationships we nurture. I hope this thesis has offered a thought-provoking and inciting look at some of the possibilities which exist in this regard.

Bibliography

Acheson, C., 2018. "Rage against the status quo: A comparative study of the feminist and environmental values of young feminists in Scotland", Masters' thesis, University of Glasgow.

Acheson, C., Hargreaves, T., Pallett, H., and Seyfang, G., 2024. Exploring intersectional approaches to waste through grassroots innovations in the UK, *Local Environment,* DOI: I10.1080/13549839.2024.2368523.

Adams, L., 24th August 2016, "Rouge landlords" exploit vulnerable familiars in Govanhill, *BBC News*, available at https://www.bbc.co.uk/news/uk-scotland-glasgow-west-37169170 (accessed 03.01.24).

Adams, L., and McKay, C., 25th August 2016. A story of Glasgow's Govanhill and its 1960s-style poverty, *BBC News,* available at https://www.bbc.co.uk/news/uk-scotland-glasgow-west-37180037 (accessed 03.01.24).

Adeola, F. O., 2000. Cross-national environmental justice and human rights issues: a review of evidence in the developing world, *American Behavioral Scientist*, 43, 686–706.

Adeola, F.O, and Picou, S., 2016. Hurricane Katrina-linked environmental injustice: race, class, and place differentials in attitudes, *Disasters,* 41:2, 228-257

Agyeman, J., 2000. Environmental Justice: From the Margins to the Mainstream? *Town and Country Planning: London Town and Country Planning Association*, 69:11, 320-322.

Agyeman, J., Bullard, R.D., and Evans, B., 2002. Exploring the nexus: bringing together sustainability, environmental justice, and equity, *Space and Polity*, 6:1, 77-90.

Agyeman, J., 2005. Alternatives for community and environment: where justice and sustainability meet, *Environment: Science and Policy for Sustainable Development*, 47:6, 10-23.

Agyeman, J., 2014. Environmental justice and sustainability. In G. Atkinson, S. Dietz, E. Neumayer, and M. Agarwala (eds). *Handbook of Sustainable Development*, 2nd edn. (Cheltenham: Edward Elgar), pp. 188-205.

Ahmed, S., 2023. *The Feminist Killjoy Handbook* (London: Penguin).

Akenji, Lewis, 2014. Consumer Scapegoatism and limits to green consumerism, *Journal of Cleaner Production*,

63, 13-23.

Akenji, L., Bengtsson, M., Toivio, V., Lettenmeier, M., Fawcett, T., Parag, Y., Saheb, Y., Coote, A., Spangenberg, J.H., Capstick, S., Gore, T., Coscieme, L., Wackernagel, M., Kenner, D., 2021. 1.5-Degree Lifestyles: Towards A Fair Consumption Space for All, *Hot or Cool Institute Berlin*, available at https://hotorcool.org/1-5-degree-lifestyles-report/ (accessed 07.04.24).

Akuoko, L.S.G., Vandenberg, J., Falman, J.C., Otsuka, K., Lau, G.K., Skrobe, M., An, S., Faustman, E.M., and Ota, Y., 2023. Rethinking plastic realities in Ghana: A call for a wellbeing approach to understanding human-plastics entanglements for more equitable plastics governance, *Marine Policy,* 158, 105856.

Alderslowe, D., Adair, J., Millar, N., and McKinley, R., 2022. "Govanhill Baths 2001". In *Occupy, Occupy, Occupy! A People's History of Occupation*, Govanhill Baths Community Trust publication (no page numbers).

Amorim-Maia, A.T., Anguelovski, I., Chu, E., Connolly, J., 2022. Intersectional climate justice: a conceptual pathway for bridging adaptation planning, transformative action, and social equity, *Urban Climate*, 41, 101053.

Anantharaman, M., 2014. Networked ecological citizenship, the new middle classes, and the provisioning of sustainable waste management in Bangalore, India, *Journal of Cleaner Production,* 63, 173-183.

Anantharaman, M., 2016. Elite and ethical: The defensive distinctions of middle-class bicycling in Bangalore, India, *Journal of Consumer Culture,* 17:3, 864-886.

Anantharaman, M., 2018. Critical sustainable consumption: a research agenda, *Journal of Environmental Studies and Sciences*, 8:5, 553–561.

Anantharaman, M., Huddart Kennedy, E., Middlemiss, M., and Bradbury, S., 2019. Who participates in community-based sustainability projects and why does it matter? A constructively critical approach. In C. Isenhour, M. Martiskainen, and L. Middlemiss (eds). *Power and Politics in Sustainable Consumption Research and Practice* (London: Routledge)*,* pp. 178-200.

Anantharaman M., 2022. Is it sustainable consumption or performative environmentalism? *Consumption and Society*, 1:1, 120-143.

Anderson, K.R., Knee, E., and Mowatt, R., 2021. Leisure and the "White-Savior Industrial Complex", *Journal of Leisure Research*, 52: 5, 531-550.

Andrews, K., 2020. *The New Age of Empire: How Racism and Colonialism Still Rule the World* (London: Penguin).

Apostolopoulou, E., Bormpoudakis, D., Chatzipavlidis, A., Cortés Vázquez , J. J., Florea, I., Gearey, M., Levy, J., Loginova, J., Ordner, J., Partridge, T., Pizarro Choy, A., Rhoades, H., Symons, K., Veríssimo, C.. and Wahby, N., 2022. Radical social innovations and the spatialities of grassroots activism: navigating pathways for tackling inequality and reinventing the commons, *Journal of Political Ecology*, 29:1, 144–188.

Armstrong-McKay, D.I., Staal, A., Abrams, J.F., Winkelman, R., Sakschewski, B., Loriani, S., Fetzer, I., Cornell, S.E., Rockström, J., and Lenton, T.M., 2022. Exceeding 1.5°C global warming could trigger multiple climate tipping points. *Science,* **377**, eabn7950. DOI:10.1126/science.abn7950

Armstrong, R., 2 May 2022. 'Gentrification – A Govanhill Problem?', *Greater Govanhill,* available at https://www.greatergovanhill.com/latest/gentrification-a-govanhill-problem (accessed 03.01.24).

Arnall, A., and Kothari, U., 2020. Becoming an island: Making connections and places through waste mobilities, *Transactions of the Institute of British Geographers,* 45, 891-905.

Arora, S., and Stirling, A., 2021. 'Degrowth and the Pluriverse: continued coloniality, or intercultural revolution?', *Steps Centre Blog,* available at https://steps-centre.org/blog/degrowth-and-the-pluriverse-continued-coloniality-or-intercultural-revolution/ (accessed 07.04.24).

Aruga, L., Refstie, H., and Nymoen Rørtveit, 2024. "The citizen" as ghost subject in co-producing smart, sustainable cities: an intersectional approach, *Urban Planning,* 9, article 7259.

Atewologun, D., & Mahalingam, R., 2018. Intersectionality as a methodological tool in qualitative equality, diversity and inclusion research. In L.A.E. Booysin, R. Bendl, and J.C. Pringle (eds) *Handbook of Research Methods in Diversity Management, Equality and Inclusion at Work (*Cheltenham: Edward Elgar Publishing) pp. 149-170

Autonomous Geographies Collective, 2010. Beyond Scholar Activism: Making strategic interventions inside and outside the neoliberal university, *ACME: An International E-Journal for Critical Geographies,* 9(2), 245-275.

Avelino, F., 2017. Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability, *Environmental Policy and Governance,* 27:6, 505-520.

Balayannis, A., 2020. Toxic sights: the spectre of hazardous waste removal, *Society and Space*, 38:4, 772-790.

Barrie, J., Anantharaman, M., Oyinola, M., and Schröder, P., 2022. The Circularity Divide: what is it? And how do we avoid it? *Resources, Conservation, and Recycling,* 180, 106-208.

Bauman, Z., 2003. *Wasted Lives: Modernity and its Outcasts* (Oxford: Polity Press).

Baviskar, A., 2011. Cows, cars and cycle-rickshaws: bourgeois environmentalism and the battle for Delhi's streets. In A. Baviskar and R. Ray (eds), *Elite and Everyman: The Cultural Politics of the Indian Middle Classes New Delhi* (Oxford: Routledge), pp 391–418.

Bayada, M.V., Clayton, V., and Ireland, A., 2023. *Our Rights, Our Communities: Summary Report,* available at https://www.govanhillbaths.com/wp-content/uploads/2023/01/OROC_SummaryReport_A4-1.pdf (accessed 10.07.24).

Beal, F.M., [1969] 2008. Double jeopardy: to be Black and female, *Meridians*, 8:2, 166-176.

Bell, K., 2020. *Working-class Environmentalism: An Agenda for a Just and Fair Transition to Sustainability* (London: Palgrave MacMillan).

Bell, K., & Bevan, G. 2021. Beyond inclusion? Perceptions of the extent to which Extinction Rebellion speaks to, and for, Black, Asian and Minority Ethnic (BAME) and working-class communities, *Local Environment*, 26:10, 1205–1220.

Benford, R., and Snow, A., 2000. Framing processes and social movements: An overview and assessment, *Annual Review of Sociology*, 26: 611-639.

Bilge, S., 2013 Intersectionality Undone: Saving intersectionality from Feminist Intersectionality Studies, *Du Bois Review: Social Science Research on Race,* 10:2, 405-424.

Bilge, S., 2014. Whitening intersectionality: evanescence of race in intersectionality scholarship. In W.D Hund and A Lentin (eds) *Racism and Sociology* (Münster: Lit Verlag), 175-206.

Bloch, A., & Quarmby, K., 2024. Environmental racism, segregation and discrimination: Gypsy and Traveler sites in Great Britain, *Critical Social Policy*, 0:0, https://doi.org/10.1177/02610183241229053.

Bloemmen, M., Bobulescu, R., Le, N.T., and Vitari, C., 2015. Microeconomic degrowth: The case of Community Supported Agriculture, *Ecological Economics*, 112, 110-115.

Bloody Good Period, 2024. "Mind your Language", available at https://www.bloodygoodperiod.com/normalise (accessed 21.05.24).

Bobel, C., 2010. *New Blood: Third Wave Feminism and the Politics of Menstruation* (New Brunswick: Rutgers University Press).

Bobel, C., 31st March 2018. 'Menstrual pads can't fix prejudice', *International New York Times,* available via Gale Academic OneFile, https://go.gale.com/ps/i.do?id=GALE%7CA553305330&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=22699740&p=AONE&sw=w&userGroupName=anon~62400085&aty=open-web-entry (accessed 03.06.24)

Bohrer, A., 2019. *Marxism and Intersectionality: Race, Gender, Class and Sexuality Under Contemporary Capitalism* (Bielifeld: Transcript Berlag).

Braun, Y. A., & Traore, A. S., 2015. Plastic bags, pollution, and identity, *Gender and Society*, 29*:*6, 863-887.

Break Free From Plastic 2024, 30th April 2024. INC-4 negotiating countries fail to respond to the magnitude of the plastics crisis. Available at https://www.breakfreefromplastic.org/2024/04/30/inc-4-negotiating-countries-fail-to-respond-to-the-magnitude-of-the-plastics-crisis/ (accessed 08.07.24).

Briggs, A. 2021. 'Period poverty' in Stoke-on-Trent, UK: new insights into gendered poverty and the lived experiences of austerity, *Journal of Poverty and Social Justice,* 29:1, 85-102.

Bryman, A., 2008. *Social Research Methods*, 3rd edn. (Oxford: Oxford University Press).

Bul, T., 2023. Plenary Speech by Theresa Bul on June 7th, 2023 at 111th International Labor Conference (ILC) in Geneva, Switzerland. Available at https://globalrec.org/wp-content/uploads/2023/08/Theresa-Bul-ASWOL_ILC2023-Plenary-Speech-June7_2023.pdf (accessed 05.04.2024).

Bulkeley, H., and Fuller, S., 2012. "Low carbon communities and social justice", report for Joseph Rowntree Foundation, available at https://www.climatejust.org.uk/sites/default/files/11.%20low-carbon-communities-summary.pdf (accessed 15.04.24).

Bullard, R.D., 2000. *Dumping in Dixie: Race, Class, and Environmental Quality* (New York: Routledge).

Bullard, R.D., 2020. Addressing environmental racism, *Journal of International Affairs,* 73:1., 237-242.

Burns, A., 2018. *Milkman* (London: Faber and Faber).

Campbell-Stephens, R., 2021. Introduction: Global Majority Decolonising Narratives. In *Educational Leadership and the Global Majority* (Cham: Palgrave Macmillan), pp. 1-21.

Cataldo, N.L., Oyinlola, M., Sigdel, S., Nguyen, D., and Gallego-Schmid, A., 2024. Waste management in Nepal: Characterization and challenges to promote a circular economy, *Circular Economy and Sustainability,* 4, 439-457

Chantler, K., and Thiara, R., 2017. We are still here: re-centering the quintessential subject of intersectionality, *Atlantis,* 38:1, 82-94.

Chatterton, P., Fuller, D., and Routledge, P., 2007. Relating action to activism: Theoretical and methodological reflections. In S. Kindon, R. Pain, and M. Kesby, (eds), *Participatory Action Research Approaches and Methods* (London: Routledge), pp. 216-222 .

Chatterton, P., and Cutler, A. (Trapese Collective), 2008. The rocky road to a real transition: The transition towns movement and what it means for social change, *The Commoner,* 13, 141-167

Chatterton, P., 2016a. Building transitions to post-capitalist urban commons. *Transactions of the Institute of British Geographers*, 41, 403–415.

Chatterton, P., 2016b. The rocky road of post-capitalist grassroots experimentation. In M. Dastbaz and C. Gorse (eds), *Sustainable Ecological Engineering Design* (Cham: Springer), 31-44.

Chen, D.M.C., Bodirsky, B.L., Krueger, T., Mishra, A., and Popp, A., 2020. The world's growing municipal solid waste: trends and impacts, *Environmental Research Letters,* 15, 074021.

Chigwenya, A., and Wadzanai, P., 2020. The intersectionality between right to the city, informality, and waste management in Masvingo City, Zimbabwe, *Journal of Urban Systems and Innovations for Resilience in Zimbabwe,* 2:2, 26-52.

Chilisa, B., 2017. Decolonising transdisciplinary research processes: an African perspective for enhancing knowledge integration in sustainability science, *Sustainability Science,* 12, 813-827.

Clark, T., Foster, L., Sloan, L., and Bryman, A., 2021. *Bryman's Social Research Methods*, 6th edn. (Oxford: Oxford University Press).

Cole, T., 21 March 2012. The White Savior Industrial Complex, *The Atlantic*, available at
https://www.theatlantic.com/international/archive/2012/03/the-white-savior-industrial-complex/254843/ (accessed 26.12.24).

Conti, A., 2005. Metropolitan proletarian research, available at www.ecn.org/valkohaalarit/english/conti.htm (accessed 20.06.24).

Cook, I., 2004. Follow the thing: Papaya, *Antipode*, 36:4, 642-664.

Crenshaw, K.W, 1989. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and anti-racist politics, *University of Chicago Legal Forum,* 139-167.

Crenshaw, K.W., 1991. Mapping the margins: intersectionality, identity politics, and violence against women of color, *Stanford Law Review*, 43, 1241-1299.

Christoffersen, A., 2021a. The politics of intersectional practice: competing concepts of intersectionality, *Policy and Politics,* 49:4, 573-593.

Christoffersen, A., 2021b. Is intersectional racial justice organizing possible? Confronting generic intersectionality, *Ethnic and Racial Studies,* 45:3, 407-430.

Cho, S., Crenshaw, K.W., and McCall, L., 2013. Toward a field of Intersectionality Studies: Theory, applications, and praxis, *Signs: Journal of Women in Culture and Society,* 38:4, 785-1060.

Dabiri, E., 2021. *What White People Can Do Next: From Allyship to Coalition* (London: Penguin).

Dahle, K., 2007. When do transformative initiatives really transform? A typology of different paths for transition to a sustainable society, *Futures,* 39:5, 487-504.

Davis, A., [1981] 2019. *Women, Race and Class* (London: Penguin).

Davis, K., 2008. Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful, *Feminist Theory,* 9:1., 67-85.

Defra, 28 June 2023. *Official Statistics: UK statistics on waste*, available at https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste#total-waste-generation-and-final-treatment-of-all-waste (accessed 02.04.24).

Della Porta, D., and Diani, M., 1999. *Social Movements: An Introduction* (Oxford: Blackwell).

De Main, H., 2015. *United We Will Swim: 100 Years of Govanhill Baths* (Edinburgh: Luath Press).

De Moor, J., Catney, P., Doherty, B., 2021. What hampers "political" action in environmental alternative action organisations? Exploring the scope for strategic agency under post-political conditions, *Social Movement Studies,* 20:3, 312-328

De Vries, K.M., 2012. Intersectional identities and conceptions of the self: The experience of transgender people, *Symbolic Interaction,* 35:1, 49-67.

Dengler, C., and Seebacher, L.M., 2019. What about the Global South? Towards a feminist decolonial degrowth approach, *Ecological Economics,* 157, 246-252.

De Benedictus, S., 2023. Periods of Austerity: The Emergence of Period Poverty in UK News Media, *European Journal of Cultural Studies,* 26:6, 880-896.

De Wilde, M., and Parry, S., 2022. Feminised concern or feminised care? Reclaiming gender normatives in zero waste living, *The Sociological Review,* 70:3, 526-546.

De Wolff, 2017. Plastic naturecultures: multispecies ethnography and the dangers of separating living from non-living bodies, *Body and Society*, 23:3, 23-47.

Diana. Z., Reilly, K., Karasik, R., Vegh, T., Wang, Y., Wong, Z., Dunn, L., et al., 2022. Voluntary commitments made by the world's largest companies focus on recycling and packaging over other actions to address the plastics crisis, *One Earth,* 11: 1286-1306.

Di Chiro, G., 2021. Mobilizing "intersectionality" in environmental justice research and action in a time of crisis. In: B. Coolsaet (ed), *Environmental Justice: Key Issues* (New York: Routledge) pp. 316-333

Dibb, K., 5th March 2020. How Govanhill is Fighting Gentrification with Community, *The Skinny,* available at
https://www.theskinny.co.uk/intersections/interviews/how-govanhill-is-fighting-gentrification-with-community (accessed 03.01.24).

Diguilio, A., and Fuchs, D., 2014. Sustainable Consumption Corridors: Concept, objections and responses, *GAIA,* 23:1., 184-192.

Downie, B., 2021. *99 Calder Street: A History of Govanhill Baths and Warehouse* (Glasgow: Govanhill Baths Community Trust publication).

Durazo, A.C.R., 2017. '"We were never meant to survive": fighting violence against woman and the fourth world war.' In Incite! (eds), *The Revolution Will Not be Funded: Beyond the Non-Profit Industrial Complex*, 2nd edn. (Durham: Duke University Press), pp.113-128.

Dururu, J., Anderson, C., Bates, M., Montasser, W., and Tudor, T., 2015. Enhancing engagement in community sector organisations working in sustainable waste management: A case study, *Waste Management and Research*, 33:3, 284-290.

Edwards, B., and McCarthy, J.D., 2004. Resources and social movement mobilisation. In Soule, S.A., and Kriesi, H. (eds.) *The Blackwell Companion to Social Movements* (Oxford: Blackwell) pp. 116-153.

Ellen MacArthur Foundation, 2024. *What is the Circular Economy?* Available at
https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview (accessed 02.04.24).

Emerson, R.M., Fretz, R.I., and Shaw, L.L., 2011. *Writing Ethnographic Fieldnotes*, 2nd edn (Chicago: University of Chicago Press).

Environment Investigation Agency, CIEL, and GAIA, 2020. Convention on Plastic Pollution: Toward a New Global Agreement to Address Plastic Pollution, available at https://www.ciel.org/wp-content/uploads/2020/06/Convention-on-Plastic-Pollution-June-2020-Single-Pages.pdf (accessed 04.07.24).

Ertz, M., Durif, F., & Arcand, M., 2016. Collaborative Consumption: Conceptual snapshot at a buzzword, *Journal of Entrepreneurship Education,* 19:2, 1-23.

Equity, 17th May 2024. Revealed: ACE risk guidelines formulated in relation to Israel-Gaza. Available at https://www.equity.org.uk/news/2024/revealed-ace-risk-guidelines-formulated-in-relation-to-israel-gaza (accessed 14.06.24).

European Commission, 2020. 'A new Circular Economy Action Plan: For a cleaner and more competitive Europe', Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN (accessed 02.04.2024).

European Commission, 2024. Waste Framework Directive, available at https://environment.ec.europa.eu/topics/waste-and-recycling/waste-framework-directive_en (accessed 18.06.24).

Faraca, G., Martinez-Sanchez, V., and Astrup, T.F., 2019. Environmental life cycle cost assessment: Recycling of hard plastic waste collected at Danish recycling centres, *Resources, Conservation and Recycling,* 143, 299-309.

FAO (Food and Agriculture Organization), 2015. Global Initiative on Food Loss and Waste Reduction (Rome: Food and Agriculture Organization of the United Nations), available at http://www.fao.org/3/a-i4068e.pdf (accessed 03.07.24).

FareShare, 2023. FareShare's Impact 2022-2023: Strengthening communities through food, available at https://fareshare.org.uk/wp-content/uploads/2023/09/FareShare-Impact-Report_Sep2023.pdf (accessed 16.05.24).

Faye, S., 2021. *The Transgender Issue: An Argument for Justice* (London: Allen Lane).

Flyvbjerg, B., 2004. Five misunderstandings about case-study research, *Sosiologisk Tidsskrift*, 12:2), 117-142.

Fossati, E.C., Sureau,S., Pel, B., Bauler, T., and Achten, W., 2022. Exnovation: Imagining sustainable transitions differently in Brussels, *Brussels Studies,* General Collection, 174. Available at http://journals.openedition.org/ brussels/6327; DOI: https://doi.org/10.4000/brussels.6327.

Fossil Free Pride, December 2023. 'About Us', available at https://www.fossilfreepride.co.uk/about (accessed 28.12.23).

Frandy, T., and Cederström, B.M., 2017. Sustainable power: Decolonising sustainability through Anishinaabe birchbark canoe building. In Albert, MT., Bandarin, F., Pereira Roders, A. (eds), *Going Beyond Heritage Studies* (Cham: Springer), pp.217-230.

Franklin, A., Newton, J., & McEntee, J. C., 2011. Moving beyond the alternative: sustainable communities, rural resilience and the mainstreaming of local food, *Local Environment*, 16:8, 771–788.

Fressoli, M., Around, E., Abrol, D., Ely A., and Dias R., 2014. When grassroots innovation movements encounter mainstream institutions: Implications for models of inclusive innovation, *Innovation and Development*, 4, 277-292.

Fuchs D., and Lorek S., 2013. Strong Sustainable consumption governance: precondition for a degrowth path? *Journal of Cleaner Production*, 38: 36-43.

Fuchs, D., Di Giulio, A., Glaab, K., Lorek, S., Maniates, M., Princen, T., and Røpke, I., 2016. Power: the missing element in sustainable consumption and absolute reductions research and action*, Journal of Cleaner Production*, 132, 298-307.

Fuchs, D., Lorek, L., Di Giulio, A., and Defila, R., 2018. Sources of Power for Sustainable consumption: where to look, in C. Isenhour, M. Martiskainen, and L. Middlemiss (eds). *Power and Politics in Sustainable Consumption Practice and Research*, (New York: Routledge), pp. 62-83.

Fuentes-George, K., 2023. The legacy of colonialism on contemporary climate governance, *Georgetown Journal of International Affairs*, 24:1, 91-98.

Fuller, S., Ngata, T., Borrelle, S.B., and Farrelly, T., 2022. Plastics Pollution as Waste Colonialism in Te Moananui, *Journal of Political Ecology*, 29:1, 534 – 560.

Furniss, J., 2017. What type of problem is waste in Egypt? *Social Anthropology / Anthropologie Sociale,* 25:3, 301-317.

GAIA, 2019a. Plastics Exposed: How *Assessments and Brand Audits are Helping Philippine Cities Fight Plastic Pollution*. Global Alliance for Incinerator Alternatives (Quezon City: Philippines). Available at: https://www.no-burn.org/wp-content/uploads/2021/03/PlasticsExposed-3.pdf (accessed 26.06.24).

GAIA, 2019b. Discarded: Communities on the Frontline of the Global Plastics Crisis, available at Report-July-12-2019-Spreads-no-marks-1.pdf (no-burn.org) (accessed 03.07.24)

Gardner, C., Thierry, A., Rowlandson, W., and Steinberger, J., 2021. From publications to public actions: The role of universities in facilitating academic advocacy and activism in the climate and ecological emergency, *Frontiers in Sustainability,* 2:679019. doi: 10.3389/frsus.2021.679019.

Geels, F., 2011. The multi-level perspective on sustainability transitions: Responses to seven criticisms, *Environmental Innovations and Societal Transitions,* 1, 24-40.

Gibson-Graham, J.K., 2016. Building Community Economies: Women and the Politics of Place. In: Harcourt, W. (ed). The Palgrave Handbook of Gender and Development (London: Palgrave Macmillan), pp. 287-311.

Gibson-Graham, J.K., Cameron, J., and Healy, S., 2016. Commoning as a postcapitalist politics. In A. Amin and P.Howell (eds), *Releasing the Commons: Rethinking the Futures of the Commons*, (New York: Routledge), 192-212.

Gibson-Graham, J.K., Cameron, J., Dombroski, K., Healy, S., Miller, E., and the Community Economies Collective, 2021. Cultivating community economies: tools for building a livable world. In J.G. Speth and K. Courrier (eds), *The New Systems Reader: Alternatives to a Failed Economy* (New York: Routledge), 410-432.

Gillan, K., and Pickerill, J., 2012. The difficult and hopeful ethics of research on, and with, social movements, *Social Movement Studies*, 11:2, 133-143.

Gille, Z., 2010. Actor networks, modes of production, and waste regimes: reassembling the macro-social, *Environment and Planning A.,* 42, 1049-1064.

Gille, Z., 2013. From risk to waste: global food waste regimes, *The Sociological Review*, 60:S2, 27-46.

Grace and Green, 2024. Homepage, available at https://graceandgreen.co (accessed 05.06.24).

Grady, C., 5 April 2017. Pepsi has pulled its controversial ad suggesting you can solve police brutality with soda, *Vox,* available at https://www.vox.com/culture/2017/4/5/15186216/pepsi-ad-kendall-jenner-black-lives-matter-controversy (accessed 28.12.23).

Grech, S., and Soldatic, K., 2015. Disability and colonialism: (dis)encounters and anxious intersectionalities, *Social Identities*, 21:1, 1–5.

Gregson, N., and Crang, M., 2010. Materiality and waste: Inorganic vitality in a networked world, *Environment and Planning A.,* 42:5, 1026-1032.

Gregson, N., and Crang, M., 2019. Made in China and the new world of secondary resource recovery, *Environmental Planning A: Economy and Space,* 51:4, 1031-1040.

Gregson, N., and Forman, P.J., 2021. England's municipal waste regime: challenges and prospects, *The Geographical Journal*, 187: 3, 214-226.

Gregson, N., 2023. *The Waste of the World: Consumption, Economies and the Making of the Global Waste Problem* (Bristol: Bristol University Press).

Gouws, A., 2017. Feminist intersectionality and the matrix of domination in South Africa, *Agenda* 31, 1, 19–27.

Govanhill Baths Community Trust, 2024. Govanhill Baths Occupation Anniversary, available at https://www.govanhillbaths.com/govanhill-baths-occupation-anniversary/ (accessed 10/07/24).

Govanhill Community Development Trust, 2023. History of Govanhill, available at https://govanhill.info/about-govanhill-community/history-of-govanhill/ (accessed 03.01.24).

Gupta, A., Sinha R., Koradia., D., Patel, R., Parmar, M., Rohit, P., Patel, H., Chand, V.S., James, T.J., Chandan, A., Patel, M., Prakash, T.N., and Vivekanandan. P., and other members of the Honey Bee Network, 2003. Mobilising grassroots technological innovations and traditional knowledge, values and institutions: articulating social and ethical capital, *Futures,* 35:9, 975-987.

Gutberlet, J., Carenzo, S., Kain, J.H., and Mantovani Martiniano de Azevedo, A., 2017. Waste picker organizations and their contribution to the circular economy: Two case studies from a Global South Perspective. *Resources*, *6*, 52. https://doi.org/10.3390/resources6040052.

Habib, A.A., 2007. Solid waste management in an era of structural adjustment : Accra's experience, M.A. Thesis, York University.

Hait A., and Powers, S.E., 2019. The value of reusable feminine hygiene products evaluated by comparative environmental life cycle assessment, *Resources, Conservation and Recycling*, 150, 104422.

Hamari, J., Sjöklint, M., & Ukkonen, A., 2015. The sharing economy: Why people participate in collaborative consumption, *Journal of the Association for Information Science and Technology*, 67:9, 2047-2059. https://doi.org/10.1002/asi.23552.

Hancock, A.M., 2007. When multiplication doesn't equal quick addition: Examining intersectionality as a research paradigm, *Perspectives on Politics,* 5:1, 63-79.

Haneman, V. J., 2021. Menstrual capitalism, period poverty, and the role of the corporation. *Columbia Journal of Gender and Law, 41,* 133-145.

Hankivsky, O., and Jordan-Zachary, J.S. (eds), 2019. *The Palgrave Handbook of Intersectionality in Public Policy* (London: Palgrave McMillan)

Hargreaves, T., Hielscher, S., Seyfang, G., and Smith, A., 2013. Grassroots innovations in community energy: The role of intermediaries in niche development, Global Environmental Change, 23:5, 868-880.

Hargreaves, T., Longhurst, N., & Seyfang, G., 2013. Up, Down, round and round: Connecting Regimes and Practices in Innovation for Sustainability. *Environment and Planning A: Economy and Space*, 45(2), 402-420.

Hart, G., 2016. Relational comparison revisited. *Progress in Human Geography*, *42*(3), 371-394. https://doi.org/10.1177/0309132516681388

Haslop, C., 2018. "The thing is I'm actually from Bromley": Queer/class intersectionality in *Pride* (2014). In D. O'Neill and M. Wayne (eds), *Considering Class: Theory, Culture and Media in the 21st Century* (Boston: Brill), pp. 303-316.

Hawkey, A. J., Ussher, J.M., and Perz, J., 2020. "I treat my daughters not like my mother treated me": Migrant and refugee women's constructions and experiences of menarche and menstruation. In C .Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies* (Singapore: Palgrave MacMillan) pp. 99-113.

Hawkins, G., 2006. *The Ethics of Waste: How We Relate to Rubbish* (New York: Rowman and Littlefield Publishers Inc.).

Heacock M., Kelly, C.B, Asante, K.A, Birnbaum, L.S, Bergman, A.L, Bruné, M.N, Buka, I, Carpenter, D.O., Chen, A., Huo, X., Kamel, M., Landrigan, P.J., Magalini, F., Diaz-Barriga, F., Neira, M., Omar, M., Pascale, A., Ruchirawat, M., Sly, L., Sly, P.D., Van den Berg, M., Suk, W.A., 2016. E-waste and harm to vulnerable populations: a growing global problem, *Environmetal Health Perspectives*, 124, 550–555.

Hearn, J., 2011. "Neglected intersectionalities in studying men: Age(ing), virtuality, transnationality," in H. Lutz, M.T.H. Vivar, and L. Supik (eds), *Framing Intersectionality* (London: Routledge) 89-104.

He, R., Sandoval-Reyes, M., Scott, I., Semeano, R., Ferrão, P., Matthews, S., Small, M.J., 2022. Global knowledge base for municipal solid waste management: Framework development and application in waste generation prediction, *Journal of Cleaner Production*, 377, 134501.

Heilman, J., 2019. Grounded: Academic flying in the time of climate emergency, *Active History,* available at https://activehistory.ca/blog/2019/07/08/grounded-academic-flying-in-the-time-of-climate-emergency/ (accessed 26.06.24).

Hernandez, I., 2021. 'Zero Waste Systems and Environmental Racism', *Queer Brown Vegan*, available at https://queerbrownvegan.com/zero-waste-systems-and-environmental-racism/ (accessed 04.04.2024).

Heyen, D.A., Hermwille, L., and Wehnert, T., 2017. Out of the comfort zone! Governing the exnovation of unsustainable technologies and practices, *Gaia – Ecological Perspectives for Science and Society,* 26: 4, 326-331.

Hickel, J., and Kallis, G., 2019. Is Green Growth Possible? *New Political Economy,* 25:4, 469 – 586.

Hickel, J., Kallis, G., Jackson, T., O'Neill, D.W., Schor, J.B., Steinberger, J.K., Victor, P.A., and Urge-Vorsatz, D., 12 December 2022. Degrowth can work – here's how science can help, *Nature,* available at https://www.nature.com/articles/d41586-022-04412-x (accessed 07.04.24).

Higman, B.W., 2000. The sugar revolution, *Economic History Review*, 53:2, 213-236.

Hobson, K., 2016. Closing the loop or squaring the circle? Locating generative spaces for the circular economy, *Progress in Human Geography,* 40:1, 88-104.

Hobson, K., and Lynch, N., 2016. Diversifying and degrowing the circular economy: Radical social transformation in a resource-scarce world, *Futures,* 82, 15-25.

Hobson, K., 2020. 'Small stories of closing loops': social circularity and the everyday circular economy, *Climatic Change,* 163, 99–116.

Hobson, K., 2021. The limits of the loops: critical environmental politics and the circular economy, Environmental Politics, 30:1-2, 161-179.

Hobson, k., Holmes, H., Welch, D., Wheeler, K., Wieser, H., 2021. Consumption work in the circular economy: A research agenda., *Journal of Cleaner Production*, 321, 128969, ISSN 0959-6526, https://doi.org/10.1016/j.jclepro.2021.128969.

Holmberg, T., 2021. Animal waste work: the case of urban sewage management in Sweden, *Contemporary Social Science,* 16:1, 14-28.

hooks, b., 2003. *Teaching Community: A Pedagogy of Hope* (London: Routledge).

Hossain, M., 2018. Grassroots Innovation: the state of the art and future perspectives, *Technology in Society*, 55, 63-69.

Hossain, M., 2020. Frugal innovation: Conception, development, diffusion, and outcome, *Journal of Cleaner Production*, 262, 121456.

Hubbub, 2023. Community Fridge Network Impact Report, available at https://cdn2.assets-servd.host/hubbub-uk/production/assets/images/CFN-annual-report_2022.pdf?dm=1690981599 (accessed 16.05.24).

Hutchinson, D.L., 2001. Identity Crisis: 'Intersectionality', 'Multidimensionality' and the development of an adequate theory of subordination, *Michigan Journal of Race and Law*, 6, 285-317.

Incite! 2017. *The Revolution Will Not be Funded: Beyond the Non-Profit Industrial Complex*, 2nd edn. (Durham: Duke University Press).

Jefferess, D., 2023. Humanitarianism and White Saviors. In Ravulo, J., Olcon, K., Dune, T., Workman, A., and Liamputtong, P. (eds). *Handbook of Critical Whiteness* (Singapore: Springer), pp. 1-15.

Jibrin, R., and Salem, S., 2015. Revisiting Intersectionality: reflections on theory and praxis, *Trans-Scripts 5*, available at https://eprints.lse.ac.uk/101557/ (accessed 22.04.24).

Juris, J., 2007. Practicing militant ethnography with the Movement for Global Resistance (MRG) in Barcelona. In S. Shukaitis and D. Graeber (eds.), *Constituent Imaginations* (Oakland: AK Press) pp. 164–78.

Kalpokaite, N., and Radivojevic, I., 2019.Demistifying qualitative data analysis for novice qualitative researchers, *The Qualitative Report,* 24:13, 44-57.

Katz, C., 2011. Accumulation, excess, childhood: Toward a countertopography of risk and waste, *Documents d'Anàlisi Geogràfica*, *57*:1, 47-60.

Kaza, S., Yao, L., Bhada-Tata, P., Van Woerden, F., et al., 2018. *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050* (Washington: World Bank Group).

Kallis G., Paulson S., D'Alisa G., Demaria F., 2020. *The Case For Degrowth* (Cambridge: Polity Press).

Keiller, S., and Charter, M., 2014. A study of member motivations and activities in hackerspaces and repair cafes. In: Sustainable innovation 2014: cities & regions as catalysts for smart & sustainable innovation. *Centre for Sustainable Design*, Farnham, Surrey, pp. 125-137, available at https://research.uca.ac.uk/2731/ (accessed 08.04.2024).

Kelbessa, W., 2023. Environmental injustice and disposal of hazardous waste in Africa, in Brinkmann (ed.), *The Palgrave Handbook of Global Sustainability* (Sham: Springer Nature), pp.1957-1975.

Kemmis, S., McTaggart, R., and Nixon, R., 2014. *The Action Research Planner: Doing Critical Participatory Action Research* (New York: Springer).

Kenis, A. 2016. Ecological citizenship and democracy: Communitarian versus agonistic perspectives. *Environmental Politics*, 25:6, 949–970.

Khalil, M. B., Jacobs, B.C., McKenna, K., and Kuruppu, N., 2020. Female contribution to grassroots innovation for climate change adaptation in Bangladesh, *Climate and Development*, 12:7, 664-676.

Kirchherr, J., Reike, D., and Hekkert, M., 2017. Conceptualizing the circular economy: an analysis of 114 definitions, *Resources, Conservation and Recycling*, 127, 221–232.

Kleinman, S., [2007] 2011. Feminist Fieldwork Analysis, 2nd edn. (London: Sage Publications).

Kraus, C., 1993. Women and toxic waste protests: race, class and gender as resources of resistance, *Qualitative Sociology*, 16:3, 247-262.

Kumar, A., and Aiken, G.T., 2020. A postcolonial critique of community energy: searching for community as solidarity in India and Scotland, *Antipode,* 53:1, 200-221.

Kuppelwieser, V.G., Klaus, P., Manthiou, A., Boujena, O., 2019. Consumer responses to planned obsolescence, *Journal of Retailing and Consumer Services*, 47, 157-165.

Laker, B., and Rowson, T., 2024. Making the invisible visible: why menopause is a workplace issue we cannot ignore, *BMJ Leader*, published online first (23rd May 2024), doi:10.1136/leader-2023-000943.

Landrigan, P., Symeonides, C., Raps, H., and Dunlop, S., 2023. The global plastics treaty: why is it needed?, *The Lancet*, 402(10419), 2274-2276.

Lane, R., 2011. The waste commons in an emerging resource recovery regime: contesting property and value in Melbourne's hard rubbish collections, *Geographical Research,* 49:4, 395-408.

Laws, S., 1990. Pollution, Taboo and Etiquette. In J. Campling (ed.), *Issues of Blood*. (London: Palgrave Macmillan), pp. 32-68.

Lau, J. C.-H., 2023. Towards a care perspective on waste: A new direction in discard studies, *Environment and Planning C: Politics and Space*, 41(8), 1592-1608.

Lee, C., 2019. Fifteen years on: the legacy of section 28 for LGBT+ teachers in English schools, *Sex Education*, 19:6, 675-690.

Lee, C., 2022. "Don't Say Gay" Bill: Florida should learn from the harmful legacy of Britain's Section 28, *The Conversation,* available at https://theconversation.com/dont-say-gay-bill-florida-should-learn-from-the-harmful-legacy-of-britains-section-28-176955 (accessed 24.05.2024).

Lee, C., 2023. Inclusive relationships, sex and health education: Why the moral panic? *Management in Education*, 37(2), 107-112.

Le Guin, U.K., [1988] 2019. *The Carrier Bag Theory of Fiction* (London: Ignota books).

Lepawsky, J., 2023. 'Book review essay: The Waste of the World', Discard Studies blog, available at https://discardstudies.com/2023/05/08/book-review-essay-the-waste-of-the-world/ (accessed 29.04.24).

Levidow, L., and Raman, S., 2019. Metamorphosing waste as a resource: Scaling waste management by ecomodernist means, *Geoforum*, 98, 108-122.

Lewis, J., 2015. Barriers to women's involvement in hackspaces and makerspaces, available at Barriers-to-womens-involvement-in-hackspaces-and-makerspaces.pdf (access-space.org) (accessed 21.04.24).

Liboiron, M., 2013. Modern Waste as Strategy, *Lo Squaderno: Explorations in Space and Society,* 29, 9–12.

Liboiron, M., 2016. Redefining pollution and action: the matter of plastics, *Journal of Material Culture,* 21:1, 87-110.

Liboiron, M., 2018. 'The what and the why of Discard Studies', Discard Studies blog, available at

    https://discardstudies.com/2018/09/01/the-what-and-the-why-of-discard-studies/ (accessed 29.04.24).

Liboiron, M., 2021. *Pollution is Colonialism* (Durham: Duke University Press).

Liboiron, M., and Lepawsky, J., 2022. *Discard Studies: Wasting, Systems, and Power* (Cambridge MA: MIT Press).

Liboiron, M., and Cotter, 2023. Review of Indigenous peoples in plastic pollution governance, Cambridge Prisms:

    Plastics, 1:e 16, doi:10.1017/plc.2023.16*.*

Lipson, M., 5th July 2023. 'The Pink Peacock's Premature Demise', *Vashti,* available at

    https://vashtimedia.com/what-happened-to-the-pink-peacock-cafe/ (accessed 29.05.24).

Liu, S., Guo, J., Liu, X., Yang, R., Wang, H., Sun, Y., Chen, Bo., and Dong, R., 2023. Detection of various

    microplastics in placentas, meconium, infant feces, breastmilk and infant formula: A pilot prospective

    study, *Science of The Total Environment*, 854, 158699.

Lorde, A., 1982. *Zami: A New Spelling of My Name* (Watertown: Persephone Press).

Lorde, A., 2017. 'Age, race, class and sex', in Silver Press (eds), *Your Silence Will Not Protect You* (London: Silver

    Press), pp. 94-106.

Lorek, S., and Fuchs, D., 2019. Why only strong sustainable consumption governance will make a difference'. In

    O. Mont (ed.), *A Research Agenda for Sustainable Consumption Governance* (Cheltenham: Elgar

    Research Agendas), pp. 19-35.

Lorek, S., Power, K., and Parker, N., 2023. Economies that Dare to Care - Achieving social justice and preventing

    ecological breakdown by putting care at the heart of our societies, *Hot or Cool Institute, Berlin,* available

    at https://hotorcool.org/resources/economies-that-dare-to-care-achieving-social-justice-and-

    preventing-ecological-breakdown-by-putting-care-at-the-heart-of-our-societies/ (accessed 04.04.24).

Loukakis, A., 2018. Not just solidarity providers: Investigating the political dimension of alternative action

    organisations (AAOs) during the economic crisis in Greece. *Partecipazione e conflitto*, 11:1, 12-37.

Luckin, D., and Sharp, L., 2005. Exploring the Community Waste Sector: Are sustainable development and social

    capital useful concepts for project-level research? *Community Development Journal,* 40 (1), 62-75.

Lutz, H., 2014. Intersectionality's brilliant career – how to understand the attraction of the concept?, Goethe Universität Institut fur Soziologie Working Paper Series: Gender, Diversity, and Migration, No. 1.

Lutz, H., and Amelina, A., 2021. 'Intersectionality and transnationality as key tools for gender-sensitive migration research'. In C. Mora and N. Piper (eds), *The Palgrave Handbook of Gender and Migration* (London: Palgrave MacMillan), pp. 55-72.

Lutzenberger, J., and J. T. Clark. 1999. Minding the gap: Introduction to radical teaching practice, *The Radical Teacher*, 56, 2–6.

Lynch, H., 2015. Govanhill: What makes a community? In H. De Main (ed.), *United We Will Swim: 100 Years of Govanhill Baths* (Edinburgh: Luath Press), pp. 60-73.

Lynch, H., 11 December 2017. Bed bugs are back – here's how one neighbourhood is learning to live with them, *The Conversation,* available at https://theconversation.com/bed-bugs-are-back-heres-how-one-neighbourhood-is-learning-to-live-with-them-87127 (accessed 3.1.24).

Maalouf, A., and Mavropoulos, A., 2023. Re-assessing global municipal solid waste generation, *Waste Management and Research,* 41:4, 936-947.

Maathai, W., 2003. *The Green Belt Movement: Sharing the Approach and the Experience* (New York: Lantern Books).

MacBride, S., 2nd November 2019. 'Does recycling actually conserve or preserve things?', Discard Studies blog, available at https://discardstudies.com/2019/02/11/12755/ (accessed 02.04.2024).

MacKay, N., 2018. 'The truth about Govanhill, the most demonised neighbourhood in Scotland... by the people who live there', *The Herald,* available at https://www.heraldscotland.com/news/17270400.truth-govanhill-demonised-neighbourhood-scotland-people-live/ (accessed 17.05.24).

Madani, D., 7th June 2020. "J.K. Rowling accused of transphobia after mocking 'people who menstruate' headline", *NBC News,* available at https://www.nbcnews.com/feature/nbc-out/j-k-rowling-accused-transphobia-after-mocking-people-who-menstruate-n1227071 (accessed 05.06.24).

Made From Jesmonite, 2024. "Company Profile", available at https://jesmonite.com/about/ (accessed 04.06.24).

Mahony, M., 2024. Meteorology, climate science, and empire: histories and legacies. In Z. Baker, T. Law, M. Vardy, and S. Zehr (eds), *Climate, Science, and Society: A Primer* (Abingdon: Routledge), pp.11-18.

Maina-Okori, N.M., Koushik, J.R., and Wilson, A., 2018. Reimagining intersectionality in environmental sustainability education: A critical literature review, *The Journal of Environmental Education*, 49:4, 286-296.

Malin, S.A., and Ryder, S.S, 2018. Developing deeply intersectional environmental justice scholarship, *Environmental Sociology*, 4:1, 1-7.

Maniates, M., 2001. Individualization: plant a tree, buy a bike, save the world? *Global Environmental Politics,* 1 (3): 31-52.

Martin, C.J., Upham, P., and Budd, L., 2015. Commercial orientation in grassroots social innovation: Insights from the sharing economy, *Ecological Economics,* 118, 240-251.

Martin, C.J., and Upham, P., 2016. Grassroots social innovation and the mobilisation of values in collaborative consumption: a conceptual model*, Journal of Cleaner Production*, 134: Part A, 204-213.

Martinez-Alier, J., Temper, L., Del Bene, D., and Scheidel, A., 2016. Is there a global environmental justice movement? *The Journal of Peasant Studies,* 43:3, 731-755.

Mason, K., 2013. Academics and social movements: Knowing our place, making our space*, ACME: An International Journal for Critical Geographies,* 12(1), 23-43.

Mason, C.L., 2019. Buzzwords and fuzzwords: flattening intersectionality in Canadian aid, *Canadian Foreign Policy Journal*, 25:2, 203-219.

McCall, L., 2005. The Complexity of Intersectionality, *Signs: Journal of Women in Culture and Society*, *30:*3, 1771-1800.

McClements, F., 23 September 2023. "The Lough isn't dying, it's being killed": How Lough Neagh reached crisis point, *The Irish Times,* available at https://www.irishtimes.com/environment/2023/09/23/the-lough-isnt-just-dying-its-been-killed-a-curdled-mess-of-pollution-chokes-lough-neagh/ (accessed 20.03.24)

McGurty, E.M., 1997. From NIMBY to civil rights: The origins of the environmental justice movement, *Environmental History*, 2:3, 301-323.

McKinzie, A.E., and Richards, P.L., 2019. An argument for context-driven intersectionality, *Sociology Compass*, 13:4, e12671.

McKinnon, K., Dombroski, K., and Morrow, O., 2018. The diverse economy: feminism, Capitalocentrism and postcapitalist futures. In J. Elias and A Roberts (eds), *Handbook on the International Political Economy of Gender* (Cheltenham: Edward Elgar Publishing), pp. 335-350

Mehrotra, G., 2010. Toward a continuum of intersectionality theorising for feminist social work scholarship, *Affila: Journal of Women and Social Work*, 25:4, 417-430.

Mejía-Montero, A., Jenkins, K.E.H., van der Horst, D., and Lane, M., 2023. An intersectional approach to energy justice: Individual and collective concerns around wind power on Zapotec land, *Energy Research & Social Science*, 98, 103015.

Middlemiss, L., 2018. *Sustainable Consumption: Key Issues* (New York: Routledge).

Mikulewicz, M., Caretta, M. A., Sultana, F., and Crawford, N.J.W, 2023. Intersectionality & Climate Justice: A call for synergy in climate change scholarship, *Environmental Politics*, 1:12, 1275-1286.

Millar, K.M., 2008. Making trash into treasure: struggles for autonomy on a Brazilian garbage dump, *Anthropology of Work Review*, 29: 25-34.

Millar, K.M., 2020. Garbage as racialization, *Anthropology and Humanism, Special Section: Ethnographic Fiction and Creative Non-Fiction,* 45:1, 4-24.

Moore, S.A, 2012. Garbage matters: concepts in new geographies of waste, *Progress in Human Geography*, 36:6, 780-799.

More, D. 2021. A Look at the Decolonise Menstruation Project, available at https://dianamore.co.uk/post/664324381807362048/a-look-at-the-decolonise-menstruation-project (accessed 18.06.24).

More, D., and Stedeford, 2021. Decolonising menstruation: an introduction, available at
https://www.bloodygoodperiod.com/post/decolonising-menstruation-an-
introduction?fbclid=IwAR0BssWTSik_7a2dXqFT7aIN1PnAaR9XfkWYGxxIzVyqG0Bw_Nl7w13hOFY
(accessed 18.06.24).

Morgan, R.J., 2023. Evangelicals, feminists, and the "unlikely" discursive alliance at the heart of British
transphobia, *DiGeSt - Journal of Diversity and Gender Studies*, 10:2, 48-64.

Morrow, O., and Davies, A., 2021. Creating careful circularities: community composting in New York City,
Transactions of the Institute of British Geographers, 47:2, 529-546.

Moser, W., 2002. 'The Acculturation of Waste'. In B. Neville and J. Villeneuve (eds.), *Waste-site Stories: The
Recycling of Memory* (Albany: State University of New York Press), pp. 85-105.

Mudde, A. E., 2022. Crafting relations and feminist practices of access, *Journal of Global Ethics*, 18:1, 64–81.

Müller, R., and Schönbauer, S., 2020. Zero Waste – Zero Justice?, *Engaging Science, Technology, and Society,* 6:
416-420.

Mundair, R., 4 November 2021. Minga Indígena – voices from the frontline struggle for climate justice, *Bella
Caledonia,* available at https://bellacaledonia.org.uk/2021/11/04/minga-indigena-voices-from-the-
frontline-struggle-for-climate-justice/ (accessed 23/12/23).

Murphy, M., 2017. Alterlife and decolonial chemical relations. *Cultural Anthropology*, 32:4, 494-503.

Ndhlovu, F. 2022. "Revisiting the True Purpose of the Discourse on Decolonising." *Journal of Multicultural
Discourses,* 17:3, 240–254.

Nestlé, 17th June 2010. "Nestlé launches first floating supermarket in the Brazilian North region", press release,
available at https://www.nestle.com/sites/default/files/asset-library/documents/media/press-
release/2010-february/nestl%C3%A9%20brazil%20press%20release%20-%20a%20bordo.pdf (accessed
05.07.24).

Ngata, T., 2018. An Unconquerable Tide, *Kia Mau*, available at https://tinangata.com/2018/02/18/2494/
(accessed 13.05.24).

Ngata, T., and Liboiron, M., 2020. Roud table: A Māori approach to starting research from where you are,
Catalyst, available at https://catalystjournal.org/index.php/catalyst/article/view/37648/28655 (accessed
26.06.24).

Njoku A., Agbalenyo, M., Laude, J., Ajibola, T.F., Attah, M.A, and Sarko, S.B., 2024. Environmental injustice and electronic waste in Ghana: Challenges and recommendations, *International Journal of Environmental Research and Public Health,* 21:1, Article 25.

Ní Dochertagih, K., 2021. *Thin Places* (Edinburgh: Canongate).

Nikravech, M., Kwan, V., Dobering, K., Wilhelm-Rechmann, A., and Langen, N., 2020. Limiting food waste via grassroots initiatives as a potential for climate change mitigation: a systematic review, *Environmental Research Letters,* 15, 123008.

Nirmal, P., & Rocheleau, D., 2019. Decolonizing degrowth in the post-development convergence: Questions, experiences, and proposals from two Indigenous territories. *Environment and Planning E: Nature and Space*, *2*:3, 465-492.

OECD, 2019. *Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences,* OECD Publishing, Paris. Available at https://www.oecd.org/environment/global-material-resources-outlook-to-2060-9789264307452-en.htm (accessed 02.04.24).

paperson, l., 2014. A ghetto land pedagogy: an antidote for settler environmentalism, *Environmental Education Research*, 20:1, 115-130.

paperson, l., 2017. *A third University is Possible* (Minneapolis: University of Minnesota Press).

Parker, L., 7th August 2020. Microplastics have moved into virtually every crevice on Earth, *National Geographic,* available at https://www.nationalgeographic.com/science/article/microplastics-in-virtually-every-crevice-on-earth (accessed 04.07.24).

Parrique T., Barth J., Briens F., C. Kerschner, Kraus-Polk A., Spangenberg J.H., 2019. 'Decoupling Debunked: Evidence and arguments against green growth as a sole strategy for Sustainability', *European Environmental Bureau,* available at https://www.almendron.com/tribuna/wp-content/uploads/2019/11/decoupling-debunked.pdf (accessed 02.04.24)

Parthasarathy, S., 2017. Grassroots innovation systems for the post-carbon world: Promoting economic democracy, environmental sustainability, and the public interest, *Brooklyn Law Review*, 82:2, 761-789.

Patel, R., and Moore, J.W., 2017. *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (Oakland: University of California Press).

Pegels, A., Castañeda, J.L., Humphreys, C., Kötter C., Negre, M., Weidner, C., Kutzner, F., 2022. Aligning recycling behaviors and the recycling system – Towards a full cycle of materials and behavioral methods, *Waste Management*, 138, 1-7.

Pel, B., Wittmayer, J., Dorland, J., and Jørgensen, S.M., 2020. Unpacking the social innovation ecosystem: an empirically grounded typology of empowering network constellations, *Innovation: The European Journal of Social Science Research,* 33:3, 311-336.

Pellow, D. N., 2004. *Garbage wars: The struggle for environmental justice in Chicago* (Cambridge: MIT Press).

Peryman, M., Cumming, R., Ngata, T., Farrelly, T.A., Fuller, S., and Borrelle, S.B., 2024. Plastic pollution as waste colonialism in Aotearoa (New Zealand), *Marine Policy,* 163, 106078.

Pink Peacock, 2024. 'Closing Statement', available at https://pinkpeacock.gay (accessed 29.05.24).

Plan International, 28 May 2021. 'Over One Million Girls in the UK Struggled to Afford of Access Period Products During the Pandemic', available at https://plan-uk.org/media-centre/over-one-million-girls-in-the-uk-struggled-to-afford-or-access-period-products-during-the-pandemic (accessed 23/12/23).

Plastic Free Communities, December 2023. Homepage, available at https://plasticfree.org.uk (accessed 28.12.2023).

Pope, E. S., 2017. The shadowy world of hazardous waste disposal: why the Basel Convention's structure undermines its substance, *South Carolina Journal of International Law and Business*, 13:2, 305-338.

Pratt, L.A.W., 2011. Decreasing dirty dumping: a reevaluation of toxic waste colonialism and the global management of transboundary hazardous waste, *Texas Environmental Law Journal*, 41:2, 147-180.

Pulido, L., 1996. Ecological legitimacy and cultural essentialism: Hispano grazing in the Southwest, *Capitalism Nature Socialism*, 7:4, 37-58.

Pulido, L., 2016. Flint, environmental racism, and racial capitalism, *Capitalism Nature Socialism,* 27:3, 1-16.

Punzi, M.C., and Werner, M., 2020. Challenging the menstruation taboo one sale at a time: The role of social entrepreneurs in the period revolution. In C .Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies* (Singapore: Palgrave MacMillan) pp.833-851.

Pynk Spots, 2021. Are Laziness and Suffering Contagious? A Disabled Anti-Capitalist Rant, *YouTube,*
https://www.youtube.com/watch?v=QVzY0zT48vs&t=3249s (accessed 04.04.2024).

Raman, S., 7th June 2023. What it means to practice values-based research, *Nature,*
https://www.nature.com/articles/d41586-023-01878-1 (accessed 02.02.24).

Rashid, M.E., Khan, M.R., Haque, R.U. et al., 2023. Challenges of textile waste composite products and its
prospects of recycling, *Journal of Material Cycles and Waste Management,* 25, 1267–1287.

Reno, J.O., 2009. Your trash is someone's treasure: The politics of value at a Michigan landfill, *Journal of
Material Culture*, 14:1, 29-46.

Reno, J.O., 2014. Toward a new theory of waste: from 'matter out of place' to signs of life, *Theory, Culture, and
Society,* 31:6, 3-27.

Reno, J.O., 2015. Waste and waste management, *Annual Review of Anthropology,* 44, 557-572.

Reproductive Justice Initiative, 2024. Homepage, available at https://reprojusticeinitiative.org (accessed
18.06.2024).

Richardson, K., Steffan, W., Lucht, W., et al., 2023. Earth beyond six of nine planetary boundaries, *Science
Advances,* 9:37, DOI: 10.1126/sciadv.adh2458

Rochman, C., Browne, M., Halpern, B. et al., 2013. Classify plastic waste as hazardous, *Nature,* 494, 169–171.

Rodney, W., [1972] 2018. *How Europe Underdeveloped Africa* (London: Verso).

Roelvink, G., 2020. Framing essay: diverse economies methodology. In J.K. Gibson-Graham and K. Dombroski
(eds). *The Handbook of Diverse Economies* (Cheltenham: Elgar), pp. 453-466.

Røstvik, C.M., 2022. *Cash Flow: The Businesses of Menstruation* (London: UCL Press).

Russel, A. (Director), 2023. *If the Streets Were on Fire,* BBC.

Ryder, S.S., 2017. A bridge to challenging environmental inequality: Intersectionality, environmental justice, and
disaster vulnerability, *Social Thought & Research: A Continuation of the Mid-American Review of
Sociology, 34- the Anthropocene,* 85-115.

Ryder, S.S., 2018. Developing an intersectionally-informed, multi-sited, critical policy ethnography to examine power and procedural justice in multiscalar energy and climate change decision-making processes, *Energy Research & Social Science*, 45, 266-275.

Rydström, K., 2020. Degendering menstruation: making trans menstruators matter. In C .Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies* (Singapore: Palgrave MacMillan) pp. 945-959.

Salemdeeb, R., 2019. 'Lessons From My Grandmother', *Circular,* available at https://www.circularonline.co.uk/opinions/lessons-from-my-grandmother/ (accessed 04.04.2024)

Savini F., 2023. Futures of the social metabolism: Degrowth, circular economy and the value of waste, *Futures,* 150, 103180.

Scagliotti, V., Acheson, C., Knapp, P., Perrin, A., Bjerke, L., O'Keefe, J., and Van der Velden, M., 2024. 'Introduction' in M. Farley (ed.), *The Sustainability of Science* (London: Royal Society of Chemistry) (forthcoming).

Schägg, E., Becker, S.L., and Pradhan, P., 2022. Thwarted visions of change: Power and demographics in repair cafes and urban sustainability transitions, *Urban Transformations,* 4:1, available at https://doi.org/10.1186/s42854-022-00031-x (accessed 08.04.2024).

Schipani, A., and Adeoye, A., 4th July 2024. Kenya's mass protests expose African fury with IMF, *Financial Times*, available at https://www.ft.com/content/0e1be993-90e1-4477-9c29-41400c0d1c98 (accessed 05.07.24).

Schlosberg, D., and Collins, L.B., 2014. From environmental to climate justice: climate change and the discourse of environmental justice, *WIREs Climate Change*, 5:3, 359-374.

Schmid B., and Smith TSJ, 2021. Social transformation and postcapitalist possibility: emerging dialogues between practice theory and diverse economies, *Progress in Human Geography*, 45:2, 253–275.

Schröder, P., and Raes, J., 2021. Financing an inclusive circular economy: De-risking investments for circular business models and the SDGs. Chatham House research paper, The Royal Institute of International Affairs, London. Available at https://www.chathamhouse.org/sites/default/files/2021-07/2021-07-16-inclusive-circular-economy-schroder-raes_0.pdf (accessed 05.04.2024).

Scottish Parliament, 2024. Circular Economy (Scotland) Bill. Available at https://www.parliament.scot/bills-and-laws/bills/circular-economy-scotland-bill/overview (accessed 04.07.24).

Seim, J., 2024. Participant observation, observant participation, and hybrid ethnography, *Sociological Methods & Research*, 53:1, 121-152.

Seyfang G., and Smith, A., 2007. Grassroots innovation for sustainable development: towards a new research and policy agenda, *Environmental Politics,* 16:4, 584-603.

Seyfang, G., 2009. *The New Economics of Sustainable Consumption: Seeds of Change* (Hampshire, Palgrave Macmillan).

Seyfang, G., and Haxeltine, A., 2012. Growing grassroots innovations: exploring the role of community-based initiatives in governing sustainable energy transitions, *Environment and Planning C,* 30, 381-400.

Shadaan, R., and Murphy, M., 2020. EDCs as Industrial Chemicals and Settler Colonial Structures, *Catalyst: Feminism, Theory, Technoscience*, 6 (1), available at https://catalystjournal.org/index.php/catalyst/article/view/32089- (accessed 01.02.2024).

Sharma, N. K., Hargreaves, T., & Pallett, H., 2023. Social justice implications of smart urban technologies: an intersectional approach, *Buildings and Cities*, 4:1, 315–333.

Sharp, L., and Luckin, D., 2006. The community waste sector and waste services in the UK: Current state and future prospects, *Resources, Conservation and Recycling*, 47, 277–294.

Shepherd, D.A., Maitlis, S., Parida, V., Wincent, J., and Lawrence, T.B., 2022. Intersectionality in intractable dirty work: how Mumbai ragpickers make meaning of their work and lives, *Academy of Management Journal,* 65:5, 1680-1708.

Shokooh-Valle, F., 2020. Sulá Batsú: Solidarity as a feminist vision of technology, *XRDS,* 26:4, 32-35.

Shokooh-Valle, F., 2021. 'How will you give back?' On becoming a *campeñera* as a feminist methodology from the cracks, *Journal of Contemporary Ethnography*, 50:6, 835-861.

Shove, E., 2010. Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environment and Planning A: Economy and Space*, 42:6, 1273-1285.

Shove, E., Pantzar, M., and Watson, M., 2012. *The Dynamics of Social Practice: Everyday Life and how it Changes* (London: SAGE Publications).

Siegle, L., 7th March 2021. Revealed: why hundreds of tonnes of recycling are going up in smoke, *The Guardian,* available at https://www.theguardian.com/environment/2021/mar/07/revealed-why-hundreds-of-thousands-of-tonnes-of-recycling-are-going-up-in-smoke (accessed 26.04.24).

Simon, J.M., 20 May 2019. A Zero Waste Hierarchy for Europe, *Zero Waste Europe*, available at https://zerowasteeurope.eu/2019/05/a-zero-waste-hierarchy-for-europe/ (accessed 28.12.23).

Siragusa, L., and Arzyutov, D., 2020. Nothing goes to waste: sustainable practices of re-use among indigenous groups in the Russian North, *Current Opinion in Environmental Sustainability*, 43: 41–48.

Skarp, S., 2021. The gateway to all good things? Commoning, sustainability, and post-capitalist possibility in UK community waste initiatives. Doctoral thesis, University of East Anglia.

Smith, A., and Raven, R., 2012. What is protective space? Reconsidering niches in transitions to sustainability, *Research Policy*, 41: 6, 1025-1036.

Smith, A., and Seyfang, Gill, 2013. Constructing grassroots innovations for sustainability, *Global Environmental Change*, 23:5.

Smith, A., Fressoli, M., Abrol, D., Arond, E., and Ely, A., 2017**.** *Grassroots Innovation Movements* (Oxon: Routledge).

Smith, A., Hargreaves, T., Hielscher, S., Martiskainen, M., and Seyfang, G., 2016. Making the most of community energy: Three perspectives on grassroots innovation, *Environment and Planning A,* 48:2, 407-432.

Smith, T.S.J., 2017. Of Makerspaces and hacklabs: Emergence, experiment, and ontological theatre at the Edinburgh Hacklab, Scotland, *Scottish Geographical Journal*, 133:2, 130-154.

Smith, T.S.J., 2020. 'Stand back and watch us': Post-capitalist practices in the maker movement, *Environment and Planning A: Economy and Space,* 52:3, 593-610.

Sophie from Mars, [@sophie_frm_mars], et al., 1st March 2023. *Do the words and image in this ad make cohesive ideas to anyone else? Am I having a stroke?* Post on X, available at https://x.com/sophie_frm_mars/status/1630897553272184834 (accessed 09.07.24).

Sovacool, B.K., Turnheim, B., Hook, A., Brock, A., and Martiskainen, M., 2021. Dispossessed by decarbonisation: Reducing vulnerability, injustice, and inequality in the lived experience of low-carbon pathways, *World Development*, 137, 105116.

Spangenberg, J.H., 2014. Institutional change for strong sustainable consumption: sustainable consumption and the degrowth economy, *Sustainability: Science, Practice and Policy*, 10:1, 62-77.

Spekkink, W., Rödl, M., and Charter, M., 2022. Repair Cafés and Precious Plastic as translocal networks for the circular economy, *Journal of Cleaner Production*, 380: 2, 135125.

Stahel, W., 2016. 'Comment', *Nature Magazine,* vol. 531, pp. 435 – 438

Stamatopoulou-Robbins, S.C., 2021. Failure to build: Sewage and the choppy temporality of infrastructure in Palestine, *Environmental Planning E: Nature and Space,* 4:1, 28-42.

Stephanides, P., 2017. Crisis as Opportunity? An ethnographic case study of the post-capitalist possibilities of crisis community currency movements. Doctoral thesis, University of East Anglia.

Stephens, J.C., 2024. The dangers of masculine technological optimism: Why feminist, antiracist values are essential for social justice, economic justice, and climate justice, *Environmental Values*, 33:1, 58-70.

Stewart, C., 30th November 2018. 'Govanhill is a microcosm of our wider populist political landscape', *The Herald,* available at https://www.heraldscotland.com/opinion/17267196.govanhill-microcosm-wider-populist-political-landscape/ (accessed 30.05.24).

Stoll, M.A., 2009. Ex-offenders, criminal background checks, and racial consequences in the labor market, *university of Chicago Legal Forum, 1,* 381-420.

Stubbs, M.L., and Sterling, E.W., 2020. Learning About What's "Down There": Body Image Below the Belt and Menstrual Education. In C. Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies*, (Singapore: Springer), 233-252.

Sztandara, M., 2021. ""We are fed up …Being research objects!" Negotiating identities and solidarities in militant ethnography" *Human Affairs*, 31:3, 262-275.

Tabuchi, H., Corkery, M., and Mureithi, C., 30th August 2020. 'Big Oil is in trouble. Its plan? Flood Africa with plastic.', *New York Times,* available at https://www.nytimes.com/2020/08/30/climate/oil-kenya-africa-plastics-trade.html (accessed 30.04.24).

Tarrant, A., 2010. 'Maturing' a Sub-discipline: The intersectional geographies of masculinities and old age. *Geography Compass,* 4, 1580-1591.

Tartiue, V.E., and Morone, P., 2017. Grassroots innovations and the transition towards sustainability: Tackling the food waste challenge. In P. Morone, F. Papendiek, and V. Tartiu (eds), *Food Waste Reduction and Valorisation* (Cham: Springer), pp. 303-327.

Taylor, M., 2014. 'Being useful' after the ivory tower: combining research and activism with the Brixton Pound, *AREA,* 46:3, 305-312.

Tokar, B., 2019. On the evolution and continuing development of the climate justice movement. In T, Jafrey, K. Helwig, and M. Mikulewicz (eds), *Routledge Handbook of Climate Justice* (London: Routledge), pp.13-25.

Taylor, V., and Van Dyke, N., 2004. "Get Up, Stand Up": Tactical repertoires of social movements. In Snow, D., Soule, S.A., and Kriesi, H. (eds.) *The Blackwell Companion to Social Movements* (Oxford: Blackwell), pp. 262-294.

Tsing, A.L., 2015. *The Mushroom at the end of the World: On the possibility of life in postcapitalist ruins* (Princeton: Princeton University Press).

Tuck, E., 2009. Suspending damage: A letter to communities, *Harvard Education Review,* 79:3, 409-428.

Tuck, E., and yang, W., 2012. Decolonization is not a metaphor, *Decolonization: Indigeneity, Education and Society*, 1:1, 1-40.

Tuck, E., & Yang, K. W., 2014. Unbecoming Claims, *Qualitative Inquiry*, 20:6, 811-818.

Tuhiwai-Smith, L., 2012. *Decolonizing Methodologies: Research and Indigenous Peoples*, 2nd edition (London: Zed Books).

Udell, J., 2023. Environmental destruction and human rights abuses in the Democratic Republic of the Congo: examining the epicenter of the cobalt mining industry from an international criminal law perspective. *Minnesota Journal of International Law*, 32:1, 195-240.

Udegbunam, C.U., 2020. Neo-colonialism and Africa's development: A critical review, *Public Policy and Administration Research*, 10:10, 69-86.

UK Government, 2018. *Our Waste, Our Resources: A Strategy for England*, available at file:///C:/Users/cache/Downloads/resources-waste-strategy-dec-2018.pdf (accessed 02.04.2024).

UKWIN, 2024. Why oppose incineration? Available at https://ukwin.org.uk/oppose-incineration/ (accessed 03.04.24).

United Nations, 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development,* available at https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981 (accessed 04.07.24).

United Nations Environment Programme, 2024. Global Resources Outlook 2024: Bend the Trend – Pathways to a liveable planet as resource use spikes (Nairobi: International Resource Panel). Available at https://wedocs.unep.org/20.500.11822/44901 (accessed 02.07.24).

Uwa, J., 2018. Transcultural tension and the politics of sewage management in (post) colonial Lagos, *Social Dynamics: A Journal of African Studies,* 44:2, 221-238.

Vandenberg, J., 2024. Plastic politics of delay: How political corporate social responsibility discourses produce and reinforce inequality in plastic waste governance, *Global Environmental Politics,* 24:2, 122–145.

Van der Boor, C. F., Dowrick, C., and White, R. G., 2022. 'Good life is first of all security, not to live in fear': a qualitative exploration of female refugees' quality of life in the United Kingdom, *Journal of Ethnic and Migration Studies*, 48:3, 710–731.

Vaughn, R., 2020. Compost and menstrual blood: Women waste pickers and the work of waste futurity, *Catalyst: Feminism, Theory, Technoscience*, 6:1, 1-28.

Velis, C., 2017. Waste pickers in Global South: informal recycling sector in a circular economy era, *Waste Management and Research*, 35:4, 3 29-331.

Vergès, F., 2019. Capitalocene, waste, race, and gender, *E-Flux*, 100, available at https://worker01.e-flux.com/pdf/article_269165.pdf (accessed 13.05.24).

Vergès, F., [2019] 2021. *A Decolonial Feminism* (translated by A. Bohrer), (London: Pluto Press).

Vickery, J., 2018. Using an intersectional approach to advance understanding of homeless persons' vulnerability to disaster, *Environmental Sociology*, 4:1, 136-147.

Vico, D., Demaria, F., and D'Alisa, G., 2023. SS20. Waste and Degrowth, call for abstracts, 10th Annual Degrowth Conference and 15th Conference for the European Society for Ecological Economics, available at https://esee-degrowth2024.uvigo.gal/en/ss20-waste-and-degrowth/ (accessed 07.04.2024).

Villarrubia-Gómez, P., Carney Almroth, B., Cornell, S.E., 2022. Reframing plastics pollution to include social, ecological and policy perspectives, *Nature Reviews Earth and Environment,* 3:11, 724-725 .

Vogel J. and Hickel J., 2023. Is green growth happening? An empirical analysis of achieved versus Paris-compliant CO2–GDP decoupling in high-income countries, *Planetary Health, The Lancet*, 7, 759-769.

Vora, S., 2020. The realities of period poverty: how homelessness shapes women's lived experiences of menstruation. In C .Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies* (Singapore: Palgrave MacMillan)*,* pp.31-47.

Walby, S., Armstrong, J., and Strid, S., 2012. Intersectionality: Multiple identities in social theory, *Sociology,* 46:2, 224-240.

Wiesinger, H., Wang, Z., and Hellweg, S., 2021. Deep dive into plastic monomers, additives, and processing aids, *Environmental Science and Technology,* 55:13, 9339–9351.

Williams, M.J., 2016. Justice and care in the city: uncovering everyday practices through research volunteering, *Area,* 48:4, 513-520.

Wittmer, J., 2021. "We live and do this work: women waste pickers' experiences of wellbeing in Ahmedabad, India, *World Development,* 140.

Women's Environmental Network (WEN), 2023. Reusable Nappy Week 2023, *WEN*, available at https://www.wen.org.uk/2023/04/24/reusable-nappy-week-2023/ (accessed 28.12.23).

Wood, J.M., 2020. '(In)Visible bleeding: The menstrual concealment imperative'. In C .Bobel, I.G. Winkler, B. Fahs, K.A. Hasson, E.A. Kissling, and T.A. Roberts (eds), *The Palgrave Handbook of Critical Menstruation Studies* (Singapore: Palgrave MacMillan), pp. 319-335.

Wretched of the Earth, 3 May 2019. An open letter to Extinction Rebellion, *Red Pepper,* available at https://www.redpepper.org.uk/environment-climate/climate-change/open-letter-to-extinction-rebellion/ (accessed 23.12.23).

WWF and Eunomia, 2018. *A Plastic Future: Plastics Consumption and Waste Management in the UK*, available at https://www.wwf.org.uk/sites/default/files/2018-03/WWF_Plastics_Consumption_Report_Final.pdf (accessed 03.04.24).

WWF, 19 November 2023. 'WWF calls on countries to stand firm as delaying tactics drive global plastic pollution treaty talks into deadlock.', WWF press centre, available at https://wwf.panda.org/wwf_news/press_releases/?10117966/Countries-must-stand-firm-for-a-robust-and-ambitious-global-plastics-treaty-amid-delaying-tactics (accessed 15.12.23).

Yusoff, K., 2018. *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press).

Yuval-Davis, N., 2015. Situated intersectionality: a reflection on Ange-Marie Hancock's forthcoming book: Intersectionality—an Intellectual History, *New Political Science*, 37:4, 637-642.

Zapata Campos, M.J., and Zapata, P., 2017. Infiltrating citizen-driven initiatives for sustainability, *Environmental Politics,* 26:6, 1055-1078.

Zapata Campos, M.J., Carenzo, S., Kain, J.H., Oloko, M., Reynosa, J.P., and Zapata, P., 2020. Inclusive recycling movements: a deep green democracy from below, *Environment and Urbanization,* 33:2, 579-598.

Zapata Campos, M.J., Carenzo, S., Charles, G., Gutberlet, J., Kain, J.H., Oloko, M.O., Pérez Reynosa, J., and Zapata, P., 2022. Grassroots innovations in extreme urban environments: The inclusive recycling movement, *Politics and Space,* 0 (0): 1-24.

Zink, T., and Geyer, R., 2017. Circular economy rebound, *Journal of Industrial Ecology*, 21:3, 593-602.

Appendices

Appendix 1: interview call-out on social media

Digital poster circulated on social media, with the goal of soliciting interviews for the first phase data collection, the mapping study of GWIs in the UK (see Chapter 3.3.1.1.).

Appendix 2: Interview schedule (mapping study)

Interviews were semi-structured, and a unique selection and variation of questions was asked in each interview, allowing the interviewee to steer the direction of the conversation. These questions were noted down as a rough guide, and the wording and framing of questions continually evolved.

Text in red shows my notes on the rationale and aim of each question.

1. **Tell me a bit about yourself. How did you become involved in grassroots action for sustainability / waste prevention, and what are the main projects you've been involved in recently?**
   Icebreaker question. Helps to establish a background picture of what gives the participant their expertise.

2. **Tell me about [x - name of initiative]. What does it aim to do, and how did it get started?**

3. **What would you say are the key issues you're trying to tackle through [x]?**

4. **Do you see these issues as separate, or connected? In what way?**
   Ask this question if the participant indicates that there is more than one issue which the GI has been designed to address. Establish the extent to which it is intersectional. Is there evidence of bridging or alignment between different frames?

5. **Do you think of what you do as a form of innovation, or activism, or both / neither? In what way?**
   Gauging participants' self-perception, and perception of the activities in question.

6. **How does the work you do with [x] make you feel?**
7. *Question intended to explore motivations, values, evidence of collective identity, etc.*

8. **If you had to describe the people who participate in [x], how would you do so? What do you think motivates people?**

   Similar to the above, this question explores collective identity, solidarity, values, activation of social relationships, etc. Also the extent to which people from multiple social identities and communities are engaged, or the homogeneity of the GWI.

9. **What's your relationship like with other, similar projects and organizations?**
   Follow up Q: do you think of yourself / the initiative as being part of a network? If so, who else is in this network?

10. **What kind of support does [x] receive, and where does it come from?**
    Question could explore resources, funding, networks, the presence of intermediary organisations.

11. **What are some of the best things about [x]?**

Further exploring motivational framings, meanings / symbolism / practices produced, and also how impact / success is measured by participants.

12. **What are some of the most significant things that projects like [x] have achieved, or could achieve?**

    Again, exploring metrics of success used by participants. Exploring whether there is a gap between perceptions of the project's potential, and the realities of what it is able to do.

- Possible Follow-up Q: what are the main constraints which prevent [x] from achieving the things you've envisioned?

13. **What have been some of the biggest challenges or frustrations?**

    Do GIs lose their radical core over time?

14. **What are some of the most important lessons to be taken from [x], in terms of helping other, similar initiatives get off the ground?**

    Relates to the question above. How can pitfalls be avoided? Can they be avoided?

Appendix 3: Interview schedule (case studies)

Question focus	Example question
Internal elements	Can you tell me a bit about yourself, and how you came to be involved with [group name]?
	Tell me about your work with [group name].
	What are the key issues which [group name] is trying to address? Do you see these issues as separate or connected? In what way?
	What sort of impacts is [group name] having?
	What are you most proud of?
	What are the biggest challenges and barriers in your work?
	How do decisions get made in [group name]?
	Have you had to make compromises in your work? What were they?
Relationships	What other groups do you work with? How did these collaborations come about? What is the relationship like?
	What is the group's relationship like with [institutions, e.g. city council, university]?
	What kind of people engage with your work? Why do you think they engage, and what do they get out of it?
	Are there any groups that you feel are currently excluded from [group name]? Why do you think this happens?
System-level elements	What are some of the changes we need to see in society?
	Do you think [group name] is playing a role in bringing about these changes? In what way?
	Would you say that [group name] has a theory of change? If so, how would you describe it?
	How would you describe your ideal world?
	What do you think is the role of community initiatives in general, in bringing about these big systemic changes?

Appendix 4: Excerpts from fieldnotes

Excerpt 1

Written during fieldwork with Govanhill Baths Community Trust, Glasgow, October 2022.

We drove to [redacted] for one of Shelia's weekly workshops, this time in partnership with [redacted] Housing Association. Jenny is their coordinator. The group is a pre-existing group of women who meet in a communal room at the bottom of one of the tower blocks, to do crafts. Shelia's role is less to do with bringing the group together in a very structured way, and more to do with adding to what they already have. She usually arrives with one planned activity, e.g. making tote bags, purses, adding zippers etc. But some of the women who come to the session do their own thing. Some of the women are very experienced themselves, and are able to teach and help others.

The women had already been working on their own projects for a while when we got there. Shelia's idea for this session was to build on what they had made the previous session – purses made from layers of old plastic bags using plastic fusion. You layer up the plastic, add strips and designs in different colours cut out from other plastic bags, and line the design with greaseproof paper on either side before ironing it. The heat then fuses the material together. The material can then be stitched together to make purses or other items. Shelia's idea was to add zips to the purses, either made from plastics or fabric scraps. The session was quite open ended. There were about 6 women participating, plus Jenny, and most of them worked on different projects with Shelia offering guidance and advice. Most of the participants seem to be middle aged, and most are friends already and do other activities together as well, such as cycling (also organised by [the Housing Association?]). This made the atmosphere very social, relaxed and friendly. The session began with several of the participants telling the group what they had been working on. One participant, Laura, jokes that she has been making pot handle holders, which everyone mistook for willy warmers. This has become a running joke among the group. Some of the participants have also made fabric coasters, scrunchies, bags, brooches, etc., which they brought to show us.

The group were very friendly and welcoming of me, and didn't seem at all uncomfortable with me joining them. Laura even gave me one of the plastic purses she had made. Shelia showed me how to use a sewing machine. I also experimented with the plastic fusion technique, which was a lot more difficult than it looks! I am a bit anxious about my own lack of sewing skills, and I need to keep reminding myself that it's nothing to be stressed about. Participating is good, but there's no requirement for me to

become a sewing expert. The conversations I have with others, and the things I observe, are more important. This case study might force me to confront my own perfectionism and the difficulties I have doing practical things. I get quite stressed when I am not good at things, and this is something I will need to work on.

Excerpt 2

Written during fieldwork with Govanhill Baths Community Trust, Glasgow, October 2022.

I have always been really attracted to plastic as a material. Its proliferation in children's toys may have a lot to do with this. Playing with plastic barbie dolls, ponies, and dinosaurs is a very vivid memory for me. Plastic is smooth and soft, sometimes spongy, and not coarse like wood or textiles. I recently learned that getting triggered by "danger textures" is a symptom of autism, and this makes a lot of sense to me. Sometimes, touching or even looking at certain fabrics triggers an unpleasant physical sensation all over my body. This happened a lot more when I was a child, but I still experience it occasionally. Plastics, on the other hand, are the opposite of a "danger texture." I'm not sure how to describe this feeling (euphoria?), but getting to work with plastics in this intimate way is very exciting. It also feels like a privilege: plastics are manufactured in a way that makes them "closed goods" – things we cannot intervene in. (This concept taken from Kate Fletcher, 2019. 'Clothes that Connect' in Social Design Reader (New York: Bloomsbury), p. 233). Taking plastics apart, manipulating them and recreating them in a not-for-profit community setting, therefore feels subversive.

Excerpt 3

Written during fieldwork with Blood Good Period, University of East Anglia, March 2023.

Session giving out period cups in the Hive with Maria [Norfolk County Council staff member]. She provided 25 cups. They were all one size – the smaller size, which is for women under 30 who haven't given birth before. Maria set up the Swap2Save stall, and we set the BGP stall on a table right next to it. Maria is also promoting switching from other disposables to reusables, e.g. razers, takeaway food containers, cling film, nappies.

I would say the stall was a success. We worried we didn't have enough products to give away, and so Lisa suggested we only give one cup per person, i.e. you can't take one for someone else. We also tried not to approach people, and instead let them come to us. This worked quite well in that it meant the cups didn't go too quickly, and we had enough to tide us over for the 2 hours.

Lots of productive conversations with people who came over to ask about the cup. A few people had used them before and wanted a new one to replace an old one, however I would say the majority had not previously tried one. One woman said she was "skeptical" about them and worried about leakage, but after our conversation she took one to try anyway. A few people didn't know how they worked, but since we had a display cup, we were able to demonstrate.

The biggest success of the stall was that it proved our hypothesis that a lot of people are curious about period cups, but don't want to pay for one in case it doesn't work for them and this becomes money wasted. Giving cups out for free removes this barrier.

We also gave out BGP leaflets with a QR code to donate, and BGP stickers, which Lisa got from the national charity. However, not every conversation we had was about period poverty, as most people were primarily interested in the cups.

We found out while running the stall that it was UEA's official Period Day. This was a very surprising coincidence. Lisa and I wondered why no-one had thought to tell us about this given the obvious overlap. If BGP doesn't know about it, who does? Staff from the Student Information Zone [SIZ] were also running a stall on periods outside the SIZ. We discovered this when students told us they had been to both stalls. One of the SIZ staff members, Kara, came up to talk to us. Said they had tried to contact BGP over Instagram, but Lisa did not find any messages from them. Typical lack of internal communication at UEA, with the Students' Union, Student Information Zone, and student societies all doing their own thing in isolation from each other! Kara was very nice though, and spoke about opportunities to collaborate with us in the future. The staff at the SIZ periods stall in the Street also referred students to us to pick up their free period cup, and this proved to be quite effective.
I went down to see the SIZ stall. They were also giving out free period products, and theirs were donated by HeyGirls. They had reusable pads as well as cups. However, these went very quickly and there were none left by the time I got there. They also had posters from Freedom4Girls, information leaflets showing where to get free period products on campus, and free sweets to give away. Generally, they seemed better resourced than us, which makes sense given they represent the university and may have better access to donations from companies than we did. I should ask them about this. The SIZ team /

welfare team were joined by UEA sports, who were talking about periods and sport. Unfortunately I didn't get time to speak to them.

The SIZ team were also running craft sessions inside the SIZ building where people were designing their own cloth bags in which to keep a period cup. Lisa commented that this seems a bit pointless when they did not actually have period cups to give away.

I would have liked to be able to do more of what the SIZ team were doing – focusing not just on period cups as a waste prevention thing, but also talking about other issues to do with periods, such as mental health and wellbeing. However, the synthesis between what we were doing could have worked well, if our stall had been next to theirs and we had added conversations about period poverty to the activities they were offering.

Appendix 5: Interview information sheets

Information sheet for interviewees in the mapping study

University of East Anglia

Grassroots initiatives for sustainable consumption and social justice

PARTICIPANT INFORMATION SHEET

1. **What is this study about?**

You are invited to take part in a research project about grassroots initiatives for sustainable consumption and social justice. The purpose of the study is to explore the environmental, social and political issues being tackled by grassroots initiatives for sustainable consumption. In addition, the study will explore the networks and movements these initiatives are part of. You have been invited to participate in this study because you are actively involved in one or more initiatives which aim to reduce waste, and create positive social change. This Participant Information Sheet tells you about the research project. Knowing what is involved will help you decide if you want to take part in the study. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

2. **Who is running the study?**

The study is being carried out by the following researchers:

Cat Acheson, PhD Candidate, School of Environmental Sciences, University of East Anglia.

The study is being supervised by Dr Tom Hargreaves (Associate Professor, School of Environmental Sciences, University of East Anglia), and Dr Gill Seyfang, (Associate Professor, School of Environmental Sciences, University of East Anglia)

3. **What will the study involve for me?**

The study will involve a one-to-one interview with the researcher. You will be asked to describe the initiatives you're involved in. In particular, our conversation will focus on the goals and aims of your work, what relationship you have with other projects, organisations, or movements, and some of the key challenges and successes you have identified in your work. The interview will be audio recorded.

You will also be invited to use paper and post-it notes, or an online Miro board, to create mind-maps or diagrams – this is entirely optional. The interview can take place either in person or online, at a date and time which suit you. If the interview takes place in person, we can use a room at the University of East Anglia, or another location such as a community centre, depending on what is most convenient for you. You will have the opportunity to review information generated about you prior to publication (e.g., you will receive a copy of the interview transcript, and any quotations that the researcher wishes to use in publication).

4. **How much of my time will it take?**
The interview will last around one hour.

5. **Do I have to be in the study? Can I withdraw from the study once I've started?**
Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of East Anglia.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting the researcher by email or phone. You do not have to provide a reason if you wish to withdraw.

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview. If you decide at a later time to withdraw from the study your information will be removed from our records and will not be included in any results, up to the point we have analysed and published the results.

6. **Are there any risks or costs associated with being in the study?**
Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study. However, meeting in person does entail the risk of possible covid-19 transmission. To mitigate this risk, the researcher will take a Lateral Flow Test prior to the interview, and you are encouraged to do the same. Hand sanitiser will be provided, and masks can be worn throughout the interview if that is your preference. If you are not comfortable with meeting in person, the meeting can take place online using a secure videoconferencing service, such as Microsoft Teams.

7. **Are there any benefits associated with being in the study?**
Taking part in the study could benefit you, by helping you to place the initiatives you're involved in within a broader context. It may provide new ways of conceptualising the links between the environmental, social, and political elements of grassroots initiatives for sustainable consumption. The completed research may also lead to opportunities for you to establish new relationships with others doing similar work.

Refreshments (tea, coffee, and biscuits) will be provided during the interview.

The research is also intended to benefit the wider community, by providing new insights into how grassroots-level initiatives for sustainable consumption can contribute to positive social and

environmental change. This will be useful to researchers, activists, and third parties such as Local Authorities and funding bodies, who could use this information to refine the kind of support they offer to sustainable consumption initiatives.

8. **What will happen to information about me that is collected during the study?**

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise. Data management will follow the UK General Data Protection Regulation Act 2020 and the University of East Anglia Research Data Management Policy 2015.

Your information will be stored securely on a password-protected computer, and in a password-protected Microsoft 365 Account. Your identity/information will only be disclosed with your permission, except as required by law. Study findings will be published in the researcher's PhD thesis and possibly in subsequent journal publications, but you will not be identified in these publications unless you agree to this using the tick box on the consent form. In this instance, data will be stored for a period of 10 years and then destroyed.

9. **What if I would like further information about the study?**
When you have read this information, the researcher, Cat Acheson, will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Cat Acheson, PhD researcher, at C.Acheson@uea.ac.uk, or on 07452951791.

10. **Will I be told the results of the study?**
You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the relevant box on the consent form. This feedback will be in the form of a pdf copy of the PhD thesis and / or the relevant thesis chapter. You will receive this feedback after the thesis has been submitted in February 2024. You will also receive a copy of any academic articles based on this study which are subsequently published.

11. **What if I have a complaint or any concerns about the study?**
The ethical aspects of this study have been approved under the regulations of the University of East Anglia's Science Faculty Research Ethics Committee.

If there is a problem please let me know. You can contact me via the University at the following address:

Cat Acheson

School of Environmental Sciences

University of East Anglia

NORWICH NR4 7TJ

C.Acheson@uea.ac.uk

 If you would like to speak to someone else you can contact my supervisor:

Dr Tom Hargreaves

School of Environmental Sciences

University of East Anglia

NORWICH NR4 7TJ

Tom.hargreaves@uea.ac.uk

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the Head of the School of Environmental Sciences, Professor Kevin Hiscock (K.Hiscock@uea.ac.uk), or the Ethics Officer for the School of Environmental Sciences, Dr Helen Pallett (H.Pallett@uea.ac.uk).

12. **OK, I want to take part – what do I do next?**
You need to fill in the consent form and return it to the researcher, either by email, or by handing a physical copy to the researcher at the beginning of the interview. Please keep the information sheet.

This information sheet is for you to keep

Information sheet for participants in the case studies

Grassroots initiatives for waste prevention and social justice

PARTICIPANT INFORMATION SHEET

1. **What is this study about?**

You are invited to take part in a research project about grassroots initiatives for waste prevention and social justice. The purpose of the study is to explore the environmental, social, and political issues being tackled by grassroots initiatives for waste prevention. The study will explore how practices such as reuse, repair, recycling and redistribution sit alongside social and / or political goals, such as building community and solidarity, and empowering marginalised groups. This Participant Information Sheet tells you about the research project. Knowing what is involved will help you decide if you want to take part in the study. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

2. **Who is running the study?**
The study is being carried out by the following researchers:

Cat Acheson, PhD Candidate, School of Environmental Sciences, University of East Anglia.

The study is being supervised by Dr Tom Hargreaves (Associate Professor, School of Environmental Sciences, University of East Anglia), and Dr Helen Pallet, (Lecturer in Human Geography and the Environment, School of Environmental Sciences, University of East Anglia)

3. **What will the study involve for me?**

The study will involve a one-to-one interview with the researcher. You will be asked to talk about the sustainability initiative you are involved in. Our conversation will focus on the goals and aims of your work, successes and challenges, and your perspective on the challenge of waste, sustainable consumption, and social justice. The interview will be audio recorded.

The researcher may also wish to observe the activities you undertake as part of your work with the initiative. This means the researcher may join you during these activities, asking questions and helping out where appropriate. The researcher will later write about these activities in field notes, which will then shape the write-up of the research. You will have the opportunity to review information generated

287

about you prior to publication (e.g., you will receive a copy of the interview transcript, and any quotations that the researcher wishes to use in publication).

4. How much of my time will it take?

The interview will last around one hour. Observation of your work activities will last for the amount of time these activities usually take (e.g. if an activity such as a repair workshop usually takes around one hour, then the observation will also take around one hour).

5. Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of East Anglia.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting the researcher by email or phone. You do not have to provide a reason if you wish to withdraw.

You are free to stop the interview or the observation at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview. If you decide at a later time to withdraw from the study your information will be removed from our records and will not be included in any results, up to the point we have analysed and published the results.

6. Are there any risks or costs associated with being in the study?

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

7. Are there any benefits associated with being in the study?

Taking part in the study could benefit you, by helping you to place the initiatives you're involved in within a broader context. It may provide new ways of conceptualising the links between the environmental, social, and political elements of grassroots initiatives for sustainable consumption. The completed research may also lead to opportunities for you to establish new relationships with others doing similar work.

The research is also intended to benefit the wider community, by providing new insights into how grassroots-level initiatives for waste prevention can contribute to positive social and environmental change. This will be useful to researchers, activists, and third parties such as Local Authorities and funding bodies, who could use this information to refine the kind of support they offer to sustainable consumption initiatives.

8. What will happen to information about me that is collected during the study?

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise. Data management will follow the UK General Data Protection Regulation Act 2020 and the University of East Anglia Research Data Management Policy 2015.

Your information will be stored securely on a password-protected computer, and in a password-protected Microsoft 365 Account. Your identity/information will only be disclosed with your permission, except as required by law. Study findings will be published in the researcher's PhD thesis and possibly in journal publications, but you will not be identified in these publications unless you agree to this using the tick box on the consent form. In this instance, data will be stored for a period of 10 years and then destroyed.

9. What if I would like further information about the study?
When you have read this information, the researcher, Cat Acheson, will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Cat Acheson, PhD researcher, at C.Acheson@uea.ac.uk, or on 07452951791.

10. Will I be told the results of the study?
You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the relevant box on the consent form. This feedback will be in the form of a pdf copy of the PhD thesis and / or the relevant thesis chapter. You will receive this feedback after the thesis has been submitted in February 2024. You will also receive a copy of any academic articles based on this study.

11. What if I have a complaint or any concerns about the study?
The ethical aspects of this study have been approved under the regulations of the University of East Anglia's Science Faculty Research Ethics Committee.

If there is a problem please let me know. You can contact me via the University at the following address:

Cat Acheson

School of Environmental Sciences

University of East Anglia

NORWICH NR4 7TJ

C.Acheson@uea.ac.uk

If you would like to speak to someone else you can contact my supervisor:

Dr Tom Hargreaves

School of Environmental Sciences

University of East Anglia

NORWICH NR4 7TJ

Tom.hargreaves@uea.ac.uk

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the Head of the School of Environmental Sciences, Professor Kevin Hiscock (K.Hiscock@uea.ac.uk), or the Ethics Officer for the School of Environmental Sciences, Dr Helen Pallett (H.Pallett@uea.ac.uk).

12. **OK, I want to take part – what do I do next?**

You need to fill in the consent form and return it to the researcher, either by email, or by handing a physical copy to the researcher at the beginning of the interview. Please keep the information sheet.

This information sheet is for you to keep

Appendix 6: Consent form for interviewees

UEA

University of East Anglia

CONSENT FORM

Title of Project: **Grassroots initiatives for sustainable consumption and social justice**

Name of Researcher: Cat Acheson

Please initial / tick box

1. I confirm that I have read and understood the Information Sheet provided to me for the above study/project, I have had the opportunity to ask questions and I am happy with the answers. ☐

2. I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved. ☐

3. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason. ☐

4. I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law. ☐

5. I understand that the results of this study may be published, and
   a. I am happy to be identified in this study ☐
   b. I wish my participation in this study to remain anonymous ☐

6. I agree to take part in this study ☐

291

_____ _____
Name of Participant   Date   Signature