

# **Transnational Fashion Sustainability: Between and Across the Gulf and the UK**

## **Biographies**

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Rawan Maki is a Bahraini PhD researcher at the London College of Fashion. In her PhD research, Rawan explores non-Western definitions for sustainability in fashion, focused on postcolonial approaches, language, uses of space, and relationships throughout the material lifecycle in Bahrain. Rawan designs garments for an eponymous label, where her collections are inspired by sustainability principles. She also writes poetry, in Arabic and English, and is a founding member of the “Fashion and Ethnicity” interest group at UAL.

## **Abstract**

In this moment of ecological crisis, the consequences of crisis are unevenly distributed, with those with the least power impacted the most. The fashion industry’s growth, spurred in the past decades by fast fashion and a reliance on growth of petroleum-based fibres, is a contributor to this uneven distribution of ecological consequences. This paper explores fashion and ecology as interconnected transnational systems. It does this with reference to two contexts: the UK and the Gulf state of Bahrain. By exploring positions on environmentalism in the UK and Bahrain, questions around fibres, clothing care and waste this paper underscores the political urgency and the relational effects of change that span nation states within the fashion sector. Decarbonising the fashion system requires both localised action and methodologies in addition to political will to work between and across such themes. Transnational perspectives are central to cumulative whole systems effects.

## **Keywords**

Fashion sustainability, environmental change, transnational fashion, petroleum-based fibres.

## Introduction

The environmental crisis is the archetypal transnational issue. Its impacts extend far beyond the borders of any one nation state. Effects in one environmental system impact lives and communities in others. The consequences of the ecological crisis are unevenly distributed, with negative effects greater for those who have the least power. Indeed environmental systems are complexly transnational. They are interconnected and defined by their constantly evolving relationships, much like fashion systems. In this paper we, its authors, examine sustainability issues in fashion across and beyond two specific geographical contexts. We do this in order to explore the structures and assumptions implicit in the dominant view of fashion sustainability. We also do it to make a case for greater plurality of both ideas and approaches to fashion-based environmental action, and with it greater sensitivity to difference and place and relational networks of impact. In particular, we contest the adoption of a 'technofix' approach by politically and economically powerful nations to environmental action, and the perpetuation of fossil fuel dependence in environmental 'solutions' such as the circular economy. A transnational lens demands greater attention to the relational aspects of these global forces within fashion and environmentalism. Our two contexts are the UK and the Gulf state of Bahrain, which are also our home countries. We write together as we learn together about how conceptualisations of fashion within planetary limits can be enacted between and across nations and cultures for greatest ecological and social benefit. We are Kate Fletcher, a white British woman raised in a working class community in the north of England and Rawan Maki, a Bahraini woman raised in Bahrain and educated in the US and UK. We know each other courtesy of Rawan's PhD research project, for which Kate is a supervisor. We acknowledge our privilege in working in this space including our educational opportunities and our roles in a western academic institution. In this paper we seek to carry forward consciousness of our position in developing transnational fashion understanding.

Sustainability is characterised as a movement concerned with others (Ehrenfeld and Hoffman, 2013), the focus of which is the ongoing flourishing of planetary systems, on which humans

depend for their survival. In fashion, awareness of the environmental and social impacts of the production and consumption of clothing can be traced back 30 years, as can fashion sector interventions on environmental issues. Indeed, since the late 1980s/early 1990s, the field of fashion sustainability has developed beyond recognition, now with its own dynamics, politics, factions, professional roles and an international research community: for instance, the membership of the Union of Concerned Researchers in Fashion is made up of individuals from 43 countries on six continents (UCRF, 2021). The scholarly field of fashion sustainability initially emerged in response to an unaware and uncritical industry sector and its host of easily observable negative environmental impacts, such as river pollution from dye houses (Cooper, 1995). Early work in fashion sustainability typically involved identifying and investigating the nature of environmental problems with a view to implementing practical solutions. This approach, while pragmatic, worked to normalise a problem-solution binary in fashion sustainability work and was underpinned by a technical and scientific approach to knowledge creation; an unquestioned assumption that ‘industry-as-is’ is the starting point for ecological investigations; and a superficial, marketing approach to sustainability, based on stereotypes and image value (Fletcher, 2008). These traits are still evident in the field today. While it is the case that much sustainability-related knowledge in fashion is detailed and relies on technical understanding; as the field has matured, so has an appreciation of the inherent biases and limitations of this approach (Maki, 2020; Fletcher and Fitzpatrick, 2021), including its derivation from predominantly western contexts, leaving non-western approaches under-explored (Maki, 2021). Chief among these limitations is the recognition that these types of knowledges are presented as universal and context-independent, presuming that all people, places, impacts and solutions are the same.

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In the UK, it is autumn and outside of my window the sky is flat grey, overcast. It is warm for this time of year, about 13 degrees centigrade. It looks like it might rain. But it often looks like that. As I sit down to write I switch off the radio. The UN climate change summit, Cop 26, in Glasgow is the headline story. In fact, the climate emergency features on TV adverts, kids’ school

assemblies and professional football stadia advertising hoardings. High street fashion brands relay their environmental credentials in window displays, presenting material choices to shoppers at the point of sale as well as advice on mending. They offer a recycling bin in store. They present themselves as part of this cultural moment. At the same time they are gearing up for Black Friday sales.

In Bahrain, I drive back home from a day at the mall in November. The sky is bright blue, quite lovely, framed by an endless flurry of cars on the highway. I didn't really need to buy anything but thought the mall would be the best place to go for a walk and catch up with my sister. It's 28 degrees today, and my dad keeps wondering why "every year, the cold season starts later and later". He says, "I used to wear a sweater this time of year!". The climate is warming, consumption is rampant in this kingdom in the Gulf, but business as usual continues. On the television, at Cop 26, Bahrain announces its plans to reduce carbon emissions by 30% over the next 15 years. My family has a growing pile of clothing in the corner of the house to be sent for donation.

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To frame fashion sustainability ideas and practice as monolithic - a set of globally identical universal themes and priorities - is to fail to recognise the lived reality of fashion experience and their differences; as well as to ignore the diverse transnational dynamics that emerge from difference. Ecological and fashion systems vary depending on where they are and adaptation to place is a critical process in both these systems' ongoing viability and health. Further, these varying conditions, cultures and impacts are connected relationally, with fashion and ecological actions interdependent on what happens elsewhere. Transnationality is central to cumulative whole systems effects, the critical measure of total environmental harm. In this paper we explore three different aspects of fashion sustainability thinking and practice from our two geographical contexts. Our purpose is to tease out transnational understanding and to use it in the service of planetary health for fashion systems.

## **Positions on environmentalism**

Bahrain and the UK are similar and different with regards to broadly held cultural philosophical positions on environmental action (Pepper, 1996, 37), as reflected in connections to 'nature' and preferred routes to taking action to maintain the integrity of ecosystems.

The UK has a maritime climate and its environment is, for the most part, seen as benevolent. Indeed the natural cycles and resources that first gave rise to industrial fashion lives in the UK – plentiful water, wool, hemp, flax and, later, imported cotton that fuelled the factories of the north west of England – enabled better life outcomes for its inhabitants (Figure 1). Natural resources were seen as 'there for the taking', a reservoir of materials and energy for unrestricted use by humans. Nature was a domain to be conquered, mastered and controlled, most obviously by emerging technology (Merchant, 1980). The implicit hierarchy, where humans are above nature, reflected the Cartesian split (Worthy, 2013), where logic, 'the mind' and man, is separate and dominant to the body, emotion and woman; and humankind in general is apart from and above natural systems. This hierarchy continues to dominate fashion sustainability work today. It finds form most often as ecological modernisation theory (Mol and Spaargaren, 2000), in which the use of science and technology is favoured to deliver improvements to a fashion system that otherwise remains unquestioned. Central to the ecological modernisation approach is a belief in the power of the market, managerial ingenuity, design innovation and efficiency improvements to deliver change. Should a problem persist, then what is prescribed is more of one of these treatments. In ecological modernisation theory, 'technofixes' are preferred, adding a technological solution to an existing problem in order to mitigate negative effects rather than working to affect behaviour change or systems redesign. By favouring market-based solutions, ecological modernisation also favours consumer choice as a powerful tool of change.

Figure 1 – Sheep for wool production grazing outside of the town of Macclesfield in north west England.

In Bahrain, the climate is defined by a strong sun, with temperatures of above 35 degrees celsius for half the year, causing inhabitants to seek shelter from the heat. Modern Gulf life is organised around air conditioning, indoor areas, and a prevalent culture of automobility. Historically, Bahrain was known as “the land of a million palm trees”, known for its fertility, freshwater springs, and plethora of maritime fauna and flora. Both desert and island, urban development in the past decades in Bahrain has seen a decline in freshwater springs (Kotarba-Morley et al, 2010), shrinking green farmlands and an expansion of artificial islands—both of which have been linked to rising temperatures on the island (Radhi et al, 2013), an increase in groundwater salinity (Zubari et al, 1994; Zubari, 1999) and in overall temperatures (Elagib and Abdu, 2010). While life before the rise of air conditioning and paved motorway networks was slower, it fluctuated within the limits of the seasons - as did fashion. From relying on lightweight natural fibres, and a few outfits per wardrobe (anecdotally, in the 1940s, four to six pieces in total among the working class and up to ten among the middle class (pers. comm., 2018), today the average citizen of Bahrain is dressed in lightweight regenerated and synthetic fibres - viscose and polyester - and relies on air conditioned malls and a car’s AC to regulate body temperature in the midst of an overheating external environment (see Figure 3). This shift was made possible, in part, by technology which has allowed the climate (read *nature*) to be distanced, even disregarded. To avoid the pitfalls of Green Orientalism (Lohmann, 1993; Lawson, 2019), or the idea that approaches to nature and the environment within the west are often detrimentally projected to the non-western world, it is useful to think of what ‘nature’ constitutes in the Gulf context when thinking about fashion. A ‘taming’ or separation from nature, has been conflated with economic and material progress in Bahrain, similar to its neighbours, many of which also discovered a wealth of oil resources in the 1930s. Today, environmental policy in Bahrain is often complementary to business-as-usual corporate incentives and those of foreign trade. On the ground, groups and concerned citizens have lobbied for environmental reforms, often in the form of protecting lands from the degradation that accompanies neo-liberal projects and policies. Protecting fisheries, coral reefs, freshwater springs, farmlands, and in more recent decades, lands from dredging and ‘reclamation’, is a Bahraini peoples tradition, however government policies

have often pushed projects through regardless. Today, governments in the Gulf continue with neo-liberal projects that are often at odds with environmental constraints, but combat this encroachment with a public by-line and image of investing in large-scale technological fixes, similar to the UK's 'technofix' approach. The same can be said for the Gulf's approach to fashion sustainability.

Figure 2

Figure 3

In the wake of what may seem like contradictory approaches – huge investments in technofixes while at the same time lack of commitments to local social equity, a further look at the relationships to environment and labour is needed for the Gulf. For fashion, the Gulf mainly relies on global imports, with a high rate of fast fashion consumption. Shein, the rapidly expanding fast fashion e-commerce platform, reports orders from Saudi Arabia among its highest in terms of order value (100-150 USD per order, compared to approximately 60 USD for the US, UK, and Mexico), with the majority of orders placed for 6 garments and above (DfDNews, 2021). While local production of fashion does exist in Bahrain, in particular for traditional wear and by local designers and tailors, issues of fast consumption and disposal of clothing run rampant.

Through the examples of the UK and Bahrain, transnational understanding of issues within fashion sustainability highlights that despite differing climates, cultures, and histories, a 'command and control' approach to nature relationships is common and with it a joint preference for techno-fixes prevails in the two nations. A transnational lens brings into focus the ideological dominance of such an approach and the challenges for other ways of doing fashion sustainability.

## **Petroleum**

The impacts of materials cultivation/extraction and processing are central to fashion sustainability discourse and again, trans-national perspectives offer critical insight into their effects. To summarise, all fibres impact the environment in their cultivation or extraction; their processing and subsequent manufacturing, use, reuse, recycling and ultimate disposal. Critically, no one fibre is universally 'best' for the environment, each with differing implications across a range of metrics including carbon impacts, water use, chemicals use, land use, microfibre pollution etc (Fletcher, 2008). That said, some fibres are decidedly worse than others, with a higher environmental load (Textile Exchange, 2020). Varying claims are made for the sustainability credentials of individual fibres and inconsistency of claims is common. In fact even the list of metrics by which green claims are made is not standardised, leading to contested units of analysis (Klepp et al., 2020) and disputes around which impacts should be counted. Certainly fibre choice plays a role in the sustainability potential of a piece of clothing, but it is part of a relational network emerging between fibre, agricultural and industrial systems, garment, its design, user(s), their fashion culture, communities, skills etc., spread in a global complex of trade, production and interactions.

Perhaps reflecting the detailed interdependencies of sustainability themes themselves; scores of high (negative) environmental impact are rarely a barrier to a textile fibre being specified in a garment. Typically, economics plays the deciding role in fibre specification. That said, there are multiple other forces at play including textile fibres' role as a by-product of other industrial sectors, such as petroleum. Bahrain, like other Gulf nations, has been shaped by oil, its discovery, its extraction, the wealth and power it creates. Historically, in the climate of Bahrain, traditional garments, such as the predecessors to the modern, highly pressed, *thobe* and *abaya* were constructed from cotton and natural fibres, and sheep's wool was used for heavier winter wear. These fibres were either regionally produced, with wool being collected in Eastern Arabia, or cottons imported within Asia. Today, the Gulf mirrors global fibre demand trends and polyester dominates fibre consumption in the region. Fabrics for the modern *abaya* and *thobe* are often a blend of synthetics with cotton fibres, and while Bahrain imports textiles largely from China, India, Turkey, and Pakistan (WITS, 2021), Japanese textile makers have also been found to



compete for the Gulf market by innovating the best fabric synthetic and cotton blends for *thobes* and *abayas* (AsianTex, 2016). Synthetic fibres, while coveted for how they drape and are easy to iron, thus achieving the archetypal ‘pressed’ *thobe* or silky *abaya* style, are known for their hydrophobic nature and lack of breathability. In the Gulf’s climate, where high heat and humidity reign for half the year, polyester clothing is not necessarily an intuitive choice - or rather has only become so where air conditioning is available. Fashion technologies co-create and are, in turn, co-created by behaviours and technologies in other domains of life with multiple sustainability implications. In the context of the Gulf, petroleum-based fibres require (typically) petroleum-powered climate controls to make them usable. Trans-national analysis opens up new lines of thinking, including about the interrelated structures that shape fashion and lives and their impacts, including carbon impacts.

Polyester today accounts for 52% of world fibre production to a total of 57.1 million tonnes (Textile Exchange, 2021; Statista, 2021), increasing by 170% from 3.37 million tonnes in 1975. In the mid-1990s, the production of overall synthetic fibres surpassed cotton production. By 2020, synthetic fibres accounted for approximately 62% of global fibre production, with polyester alone with a market share of 52%, the remaining 10% comprising other synthetic fibers such as acrylic, elastane, and polypropylene (Statista, 2021). Also from the mid-1990s until today (1996 - 2018 *to be exact*), clothing prices in Europe have dropped by over 30%, relative to inflation (EEA, 2019). In the past 25 years, Europeans have on average purchased more clothing, but spent much less money doing so. Emissions from the production of polyester are also an increasing contributor to annual greenhouse emissions, measuring at 700 million tonnes of carbon dioxide in 2015, and projected to nearly double by 2030 (Ellen MacArthur Foundation, 2017; Changing Markets Foundation, 2021b).

The increase in demand for polyester fibre in particular has coincided with the advent and rise in commercial prominence of a low cost, high volume business model, commonly described as fast fashion. While ‘fast fashion’ was also enabled by the end of global trade barriers that came to an

end in 2005 when the Multi-Fibre Arrangement was phased out, the plentiful availability of low cost, petrochemical-derived fibre and fabrics did little to inhibit its growth. Between 2007 and 2017, annual world production of synthetics increased by 24 million tons (from 38.4 to 62.4 million tons) compared to a difference of 11 million tons for the period of 1990-2000 (Textile Outlook International 2017; 2018). The growth in use of such fibres can be seen to perpetuate fossil-fuel dependence in the midst of climate emergency (Changing Markets Foundation, 2021a). For instance, BP's energy projections assume that 95% of growth in oil demand will come from plastic production, which includes synthetic fibres (Changing Markets Foundation, 2021b). Interestingly, as engagement with sustainability themes has grown, polyester has become a central to the development of some environmental strategies, notably recycling and the circular economy, both of which are popular with fast fashion brands. This is examined further in the next section. What is clear is that the current dependence on, and trajectory of growth of, petroleum-based synthetic fibres is both a material and political direction for the global fashion sector.

### **Transnationality of waste, distinctiveness of place**

A commercial interest in developing a cheap fibre like polyester as the material of choice for recycling and the circular economy has seemingly legitimised it as an eco-choice. Of polyester's 57 million tonnes produced in 2020, approximately 15% is recycled polyester in 2020, compared to 11% in 2011 (Textile Exchange, 2021). By July 2021, over 100 brands and suppliers have signed on to the challenge of jointly increasing the share of recycled polyester to 45% by 2025 as part of the UN and Textile Exchange's 2025 Recycled Polyester Challenge (ibid). In comparison, recycled wool comprises 6% of the market share of wool, and recycled cotton 1% of the market share of cotton (ibid). Today the circular economy for fashion (an environmental impact reduction strategy based on 'closing loops' and collecting and recycling garments into new ones) is based largely upon polyester, a fibre that can be chemically recycled by taking it back to polymer and re-extruding new filaments, is a by-product of petrol and diesel production and is a contributor to microfibre pollution (Boucher and Friot, 2017). While synthetic microfibres are sloughed off the surface of polyester fabrics everywhere, its effects are felt

disproportionately in those areas already under pressure from increasing temperatures and poor water quality. For instance in Bahrain, synthetic microfibre pollution contributes to bodies of water that are already struggling with salinity, endangered coral reefs, and damage from dredging and reclamation projects. These issues impact local farmers, food security for the historically fish-dependent Gulf island, and global ecological systems. For the Gulf, which is predicted to meet the impacts of climate change sooner than western nations due to its coastal developments and low-land areas vulnerable to sea level rise (Hereher, 2020; Mulhern, 2020), this is even more pressing.

While in the west, presumptions behind circularity rely on an existing infrastructure of recycling (Figure 4), a transnational approach shows the limits of these assumptions. In the Gulf recycling efforts have been limited, even for non-textiles. In Bahrain currently, 5-7% of household waste in Bahrain is comprised of textiles (Al Sabbagh et al, 2012), and is often sent to landfill. As for re-use, informal donations, often through charities or local organisers are often shipped overseas, similarly to the UK. The impacts of markets overwhelmed by second-hand clothing in the global south is widely documented by the OR Foundation, an organisation based in Accra, Ghana (Ricketts and Skinner, 2021). The export of fashion waste to the global south is an issue of climate justice, where rich nations with high consumption commit their externalities transnationally to poorer nations. Averting textiles from landfill and textile waste from the global south requires localised strategies to both the UK and Bahrain context. This is necessary in order to understand the limitations of certain solutions relating to organising or behavioural change. For instance, activist groups such as Fashion Revolution, as well as governments, often suggest washing clothing at lower temperatures to reduce energy. This guidance is well-meaning and is typically addressed to the wearer of the garment which may be a good fit to, for instance, UK wearers who typically wash clothes themselves and have access to a washing machine that has a variable temperature setting. Yet in Bahrain, and the Gulf more generally, families often rely on live-in domestic help. The instructions on clothing care, while targeted at the wearer, are most often carried out by domestic workers, yet these people – usually immigrant women – are not the focus of the campaign. Not only that but the national Gulf dress, such as the *thobe* or *abaya*, require

considerable steaming and pressing - a dress culture that is only possible courtesy of unseen domestic labour. The role that domestic labour plays in the Gulf cannot be disregarded when looking at relational sustainability effects and who the onus of action falls on.

Figure 4 – Charity shops which constitute a key part of clothing recycling infrastructure in the UK

### **Conclusion: transnational reform of relationships to nature and labour**

A transnational view of fashion systems underscores the need for local solutions and global leadership. Both the UK and Bahrain are examples of high consumer societies and while relationships to nature and the urban environment may have differed in past decades, today they share a position on environmentalism that is fuelled by a petrochemical political lobby, and constrained to technofix rather than large-scale systems change.

Reflecting on positions on environmentalism, the lobby of petroleum based fibres and the transnationality of waste and clothing care issues within the fashion system, brings into light both the urgency and scale of change needed. For the Gulf, modern urban projects and development, as well as notions of progress, have hinged on protecting society from nature, as opposed to recognising humans as part of and interdependent with natural systems. It is a marker of Gulf progress, sense of safety, and luxury to have built cities, to meet and exceed material demands of their elite populations and do so in a way that is shielded from the natural environment. What this means for an approach to fashion sustainability, is that a reconciliation with nature is a much larger sustainability question. Designing fashion systems more sustainably also brings into light designing urban centres, buildings, and ultimately entire sources of energy and wealth more sustainability for the petrochemical nations. For instance, renewable energy as well as investments in regenerative farming could bode well for the Gulf states, but ultimately tackling the high rate of demand and is the underlying challenge.

A disenfranchisement from the environment is reflected in the urban structures of the Gulf, often a low provision of public spaces—making malls, and by extension, fashion consumption spaces, prime areas of public gathering. This disenfranchisement, however, is also seen in the relationship of society towards labour. Often living in separate camps, low wage migrant labour in the Gulf is often ‘out of sight’, similarly to what happens to fashion products after end-of-use. Bookchin (2003) claims that the relationship of a society to its environment reverberates on its relationships to different groups within it. ‘Nature’ in the Gulf is neatly packaged away, in a similar way to its labour. A transnational approach brings into light that this ‘disenfranchisement’ to both the environment and labour in Bahrain. It is a microcosm of the fashion system at a large – where the fashion ‘consumer’ is largely disenfranchised from labour, resource extraction, and waste within the fashion system. The same can be said for the UK. Despite its greater levels of fashion sustainability awareness, the UK’s preference for technofixes and low-wage labour in the producer countries, re-asserts the transnationality of these issues, despite their local manifestations.

While Bahrain will warm up before the UK, and its rise in water levels will impact its coastal communities first, the onus of transitioning away from high carbon fashion systems lies jointly with the rich nations of the world, who both directly export textile waste to the less well-off nations and cause far higher rates of negative impact. This urgency of change, and to decarbonise the fashion system, requires further research and concurrently localised action. Action research methodologies, such as the Earth Logic Fashion Action Research Plan (Fletcher and Tham, 2019), offer a framework for fostering change without a focus on growth. Whether these methodologies are applied, and the will to mobilise transformation exists, is a larger political issue that goes beyond nation borders.

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