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**Free Fashion?**

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Abstract:

This paper presents a radically speculative future scenario for fashion, building on economic thinking from outside the Global North canon while accounting for predicted near-future constraints on fibre and fashion production due to disruptions from climate breakdown, political unrest and increasing inequality. The paper questions whether the for-profit model of fashion provision is fit for purpose in light of these accelerating constraints. In the speculative future scenario the dominant model of fashion provision is highly regulated and clothing is free along with other essentials like education, food and housing. While the scenario is unlikely, its underlying rationale is a reality that the industry must urgently contend with. This paper imaginatively contributes to that urgent work.

### Acknowledgment of Country

I begin by acknowledging the Gadigal People of the Eora Nation upon whose ancestral lands I live and work. I would like to pay my respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for these lands. Sovereignty has never been ceded. This always was and always will be, Aboriginal land. I support the Uluru Statement from the Heart to achieve justice, recognition and respect for First Nations people and a referendum to enshrine a First Nations Voice in the Constitution.

### Gratitude

I would like to thank the board and the membership of the Union of Concerned Researchers in Fashion (UCRF). Conversations during the past three years with this group of researchers have informed my thinking behind this paper.

### Fashion in Post-Fossil Fuel Transitions

In 15 years I have been on twenty panel talks on fashion and sustainability and attended as many. Inevitably at the Q&A a version of the same question comes up: if clothing becomes more expensive to pay for its full ecological and social costs, how will poor people be able to afford clothing? My experience has been that the person asking the question rarely has a concern for some imaginary poor person, but rather, the underlying concern is with that person being able to continue shopping for clothing at their current pace and volume. Without doing the intellectual work of what it would actually be like to shop less, to own less, to consume less resources, people tend to react to their fear of the unknown and try to mask it as a concern for someone else. Yes, there are people who shop at fast fashion brands because of affordability. My experience is that the people asking the question at panel talks are people who have a range of choices available to them.

The Nature of Fashion (Biomimicry Institute, 2020) makes a strong case for transitioning away from fibres made from petrochemicals, which currently represent approximately 60% of total fibre production (Textile Exchange, 2020). The report notes that systems inevitably leak, for example, clothing sheds fibre when worn and when being laundered. We therefore should not create fibres that cannot be absorbed by biological systems. Microfibres released from polyester garments are a case in point. The report also critiques how circular economy is often visualized as two separate cycles, the technological and the biological. The report points out that because the biosphere is the bounding entity for all activity, it is more accurate to show the technological cycle bounded by the biological one.

This paper takes the position that in light of the climate crisis and the irreversible damage caused to earth's ecosystems by extractive industries, the fossil fuel industry must be brought to a close as rapidly as possible. The fashion industry cannot remain a pipeline for it (Changing Markets, 2021). The fashion system relies on fossil fuels as an energy source, as a source for more than half of the fibre it uses, and as a source for many of its chemical dyes. While hypothetically all of these can eventually be replaced with energy, materials and substances that are compatible with biological systems, we do not know if that replacement can be done at the scale and pace of the current industry output. It seems unlikely.

The transitions resulting from the sunseting of the fossil fuel industry more than halves the total feasible production of fashion, given polyester's dominance (Niinimäki et al, 2020). This paper argues that no more land should be converted to fibre production, therefore placing concrete limits on the production capacity of the global fashion system. Furthermore, this paper calls for transitions from industrial agriculture to regenerative, carbon farming practices. Agriculture can and should sequester carbon in the soil, and support and be part of local biodiversity. These transitions have implications for productivity. We should then ascertain what the current capacities of soil-based, regenerative fibre systems are. While fibres derived from recycled feedstocks (agricultural, industrial and postconsumer cellulose waste, reclaimed fibres, etc.) may offset some of the contraction caused by the elimination of petrochemical-based fibres, these also have land-based limits, albeit more indirectly. As transitions towards true circular economies fortify, cycles of consumption and material flows will need to slow down significantly, further constraining recycled feedstocks. Fossil fuels have enabled a mirage of limitless material and economic growth in fashion. As an industry we must authentically contend with the infeasibility of that growth. The transition from growth to degrowth to steady state is among the most challenging mindset shifts that needs to urgently occur.

### Fashion in Transitions from Growth to Degrowth to Steady State

In phasing out fossil fuel-based synthetic fibres, in this paper regarded as 'carbon out of place', the immediate assumption might be that they ought to be replaced with natural fibres to maintain fibre production at current levels and then grow from there. For example, the 2017 Pulse of the Fashion Industry report (Global Fashion Agenda, 2017, p. 8) assumes that because population is projected to grow, clothing production will as well - "2030: 8.5 billion people will require clothing". This assumption that there is a correlation between population growth and growth in fashion production based on need ought to be challenged. A number

of high profile examples, most notably H&M and Burberry in 2018, demonstrate that we produce more clothing than we know what to do with. Niinimäki et al (2020) demonstrate that the rate of growth in clothing production overtook the rate of population growth around the year 2000.

Critiques of compound economic growth are more than half a century old. In response a theory of “green growth” or decoupling growth from resource use has emerged. The theory proposes that once most energy comes from renewable sources such as solar and wind, and once material flows are circular, economic growth can continue without detrimental impacts such as its ongoing contribution to climate breakdown. Recent research strongly suggests that there is no empirical basis for the theory of green growth (Hickel & Kallis, 2020; Vadén et al, 2020). It relies on unproven technologies, mainly carbon capture and storage (CCS) that do not exist on the scale needed within the timeframe needed. Fletcher and Tham (2019: 44) note that a planned contraction is among the most urgent and challenging projects for fashion.

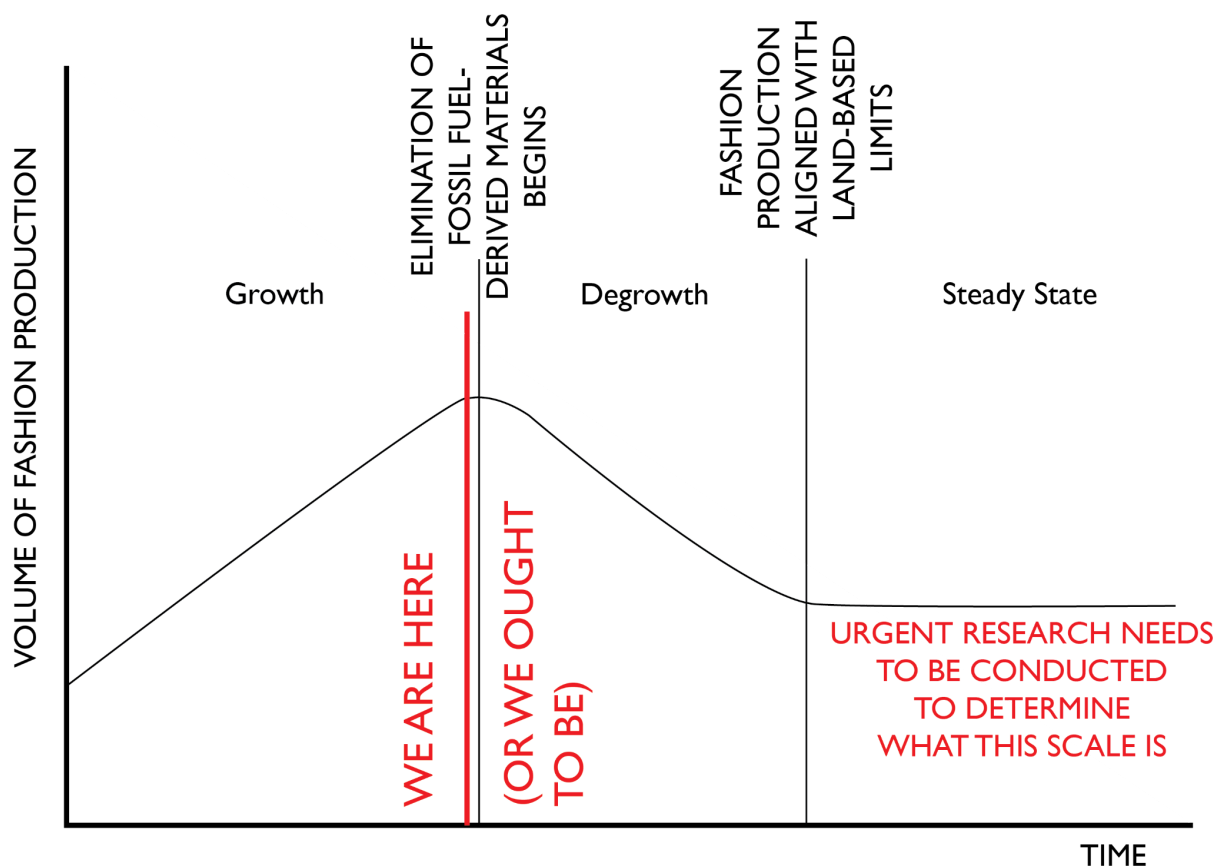


Figure 1.

Figure 1 illustrates the shift that needs to occur in the volume of fashion production over time. The volume of fashion production is still growing, temporarily slowed by the pandemic. Forecasts for fibre production, in particular polyester, however predict continued growth (Textile Exchange, 2020). This paper argues that we need to reverse this growth as we phase out fibres derived from petrochemical sources, including recycled synthetic fibres. This period will be one of degrowth. Once we have reached a level of fashion production that current land use can support, we enter a steady state of fashion production. This will be subject to seasonal variations and other local factors, including unforeseen events such as floods and droughts. To maintain a steady state over time will require deep care of land and all living things on land, including humans. The period of degrowth presents a complex challenge, with significant implications for employment, economies and mindsets about fashion. Unlike the neat curve of the graph, it will be a messy, uncomfortable and likely painful period of transitions.

### Breaking with the Placelessness in Fashion

In an earlier draft of this paper, the imagining of a future scenario for fashion took cues from two Indigenous authors, Kimmerer (2013) and Yunkaporta (2019). Kimmerer is enrolled member of the Citizen Potawatomi Nation, in the so-called United States. Yunkaporta belongs to the Apalech Clan from Western Cape York, in the so-called Australia. Both address economics from 'outside' of economics with themes of complexity, reciprocity, and humility. Based on ongoing conversations with Indigenous colleagues and further readings that critique academic practices around Indigenous knowledge, often extractive and colonial in nature, it is my view that to draw from two specific sources of Indigenous knowledge in this context, to develop some universal thesis for fashion provision, is not appropriate. Rather, the two authors give guidance to those of us who are not Indigenous. Yunkaporta (2019: 163) writes: "The assistance people need is not in learning about Aboriginal Knowledge but in remembering their own." On becoming Indigenous to place, Kimmerer (2013: 215) writes: "To become naturalized [to place] is to live as if your children's future matters, to take care of the land as if our lives and the lives of all our relatives depend on it. Because they do."

My interpretation of these texts is, those of us who are settlers as I am in Australia, must find the connection to living in kinship with earth and all her inhabitants in our own timelines. For many, this work requires repairing timelines and connections as well as acknowledging gaps in histories and in knowledge. For me, it means going back three and more generations in Finland, when my great-grandparents and their ancestors lived

primarily on what their immediate surroundings provided them with. What I have learned from that and what I get to work with is humility and a sense of balance. Land is not abstract. Grown materials like wool or cotton are borne of the soil of a place. It is much more difficult to make the same connection with petrochemical-based materials, other than connecting the material to the destruction of a place created by its extraction. Standing in the foundations of my great-grandfather's home in 2015, looking at the fields that would have provided the grain for his bread, forests with fowl and timber, the lakes with fish, our interdependence on earth's systems was clear as day. In western societies we strive to dominate and control earth's systems. Letting go of control and stepping into interdependence can be a great teacher.

### Fashion at the Limits: Free Fashion?

This paper asks: if there is a finite amount of fibre available for fashion production, translating to a finite number of fashion garments that can be produced annually, is the for-profit model of fashion provision in an unregulated market the most appropriate approach to ensure just provision? Evidence suggests it is not. The for-profit model and the logic of profit privilege the interests of the business owner, not the citizen-users of fashion, not the custodians of land, not the protectors of water, not ecosystems nor our non-human relatives. This paper argues that ideas of fashion futures ought to be grounded in care for earth and all her inhabitants, drawing from *Earth Logic* by Fletcher & Tham (2019). Care is locally specific; this paper makes no universal claims. This paper is written on Gadigal land, in the so-called Sydney, written by an immigrant settler from Finland. Place shapes thinking; the two are intertwined. I acknowledge that the thinking in this paper may have less relevance in other places.

If we know that something that is essential to the wellbeing of every single human exists in a finite quantity, why do we assume that the for-profit model within an unregulated, 'free' market is the best way to provision that essential good to people? There is a limit to the amount of food for human consumption that planetary systems can support. Excluding petrochemicals, and the evidence is clear that we should, there is a limit to the amount of fibre production for textiles and clothing that planetary systems can support. The primary ways in which food and clothing is provisioned to people is through for profit business models, which means that access to these goods is determined by the economic standing of an individual. If we accept that the economic standing of an individual is deeply shaped by inequality, it becomes increasingly difficult to justify the for-profit model of food and clothing provision. This paper focuses on clothing, and its expression as fashion.

In preparing this paper I proposed a thought experiment. First we ought to determine what the capacity of current land used for fibre production is, once all fibre production has been converted to regenerative carbon farming. That should be the non-negotiable ceiling. We should not convert any more land to fibre production; what is already being used must suffice. In addition, some land currently in fibre production may not remain viable for more than a few decades due to climate breakdown. Furthermore, whether certain fibres should be grown in certain locations, for example cotton in areas of low rainfall, requires rigorous moral questioning. Finally, some land currently in fibre production may not remain viable for more than a few decades due to climate breakdown.

From these considerations we ought to be able to calculate what can actually be produced. This is complex work that needs to happen at the local level in countless locations. In many places, however, local wisdom about the carrying capacity of the local ecosystem already exists. As Fletcher & Tham (2019, p. 48) note: “Localism influences both what and how much is made because the associated costs of each extra unit of production or service delivered will be borne in the same community that people are living in and the trade-off between cost and benefit negotiated.” In transitioning to ecologically sound agriculture, it is likely that the volume of total production will contract, albeit with many benefits within local ecosystems and the overall planetary system. The industry is still in a mindset of limitless production, seemingly made ‘possible’ by synthetic fibres derived from fossil fuels, not bound by limits of land use. This deliberate push to contract, the call for degrowth, is a deeply unpopular proposition, but nonetheless something we must consider and act upon. We cannot afford further avoidance of the difficult conversations. We should nonetheless do so with all of our creativity and imagination, even playfulness. Compassion is also critical: transitions often come with grief and even anger, and these must not be ignored.

### Fashion and Economics of the Commons

Fletcher and Tham (2019) provide a framework for considering fashion in relation to planetary boundaries; they present earth’s living systems as the logic for economic thinking and activity, including in fashion. In discussing the process of bringing fashion activities to alignment with the biophysical limits of earth, Fletcher & Tham (2019, p. 44) elaborate: “*LESS is the largest provocation associated with transition to sustainability. Here lies the greatest temptation to veer into techno fixes. Yet, only by staying with the trouble of less can the scale of change deemed necessary be achieved. Instead of procrastinating with incremental reductions, we need to face the reality of less and address the real social-economic problems that growing out of growth creates. This includes employment of people in the textile and clothing industry.*”

A field of well-being economics has emerged (Dalziel et al 2018), the origins of which can be traced to visionary economists like Manfred Max-Neef. Max-Neef's theory of fundamental human needs (1992) is useful here, as we consider the implications for quality of life of a highly regulated system of clothing provision. It must not be ignored that clothing and fashion fulfill many needs beyond the physical. Economies built on well-being are locally specific: they are relevant to local ecosystems and they build on locally specific wisdom. Such economies tend to explicitly value the commons: commons are resources that we consider as belonging to a community.

Twigger Holroyd (2017) gives form and detail to the commons in fashion. She describes as enclosure the ways in which the fashion system and other actors restrict our access to the fashion commons. Further enclosure is created by a fashion culture that promotes shopping as its primary activity, over amateur customisation, making and mending. Twigger Holroyd draws on Max-Neef, in what may be the most substantial such work in a fashion context to date. Max-Neef proposes nine fundamental human needs, which are universal to all people regardless of place, culture or time. These are subsistence, protection, affection, understanding, participation, recreation/leisure, creation, identity and freedom. While the needs are universal, their satisfiers vary geographically, culturally and temporally. Interestingly Max-Neef (1992, p. 208) lists fashion as a pseudo-satisfier – one that appears to satisfy a need, for example identity, but may fail to do so – albeit some two decades before the works of Fletcher (2014) and Twigger Holroyd (2017) that point to a similar conclusion.

When we accept that we are in a permanent state of a planetary crisis that will continue beyond our lifetimes for an unknown number of generations, clothing provision in a chronic crisis, inseparable from concrete, land-based limits of fibre production, becomes a salient task. A historical example of clothing provision in a crisis provides some useful guidance. The Utility Scheme in the UK during and after WW2 (Sladen 1995), demonstrates that fashion can be a source of fulfilment and beautiful design even in a highly regulated context. Garments designed and manufactured as part of the scheme, for example a dress from 1942 attributed to Edward Molyneux, demonstrate designers' ingenuity of working with limitations such as restricted numbers of pleats and buttons. A Utility Scheme man's suit in the Victoria & Albert Museum in London, which the owner wore from 1945 to 1982 (37 years) (Hart, 1984, pp70–71), demonstrating not just a high material quality of the suit but an immense capacity to satisfy the user over a long period of time. What can we learn from the Utility Scheme? While it appears that no broader studies were conducted on the satisfaction of the wearers of these garments, the examples of garments suggest that the experience of



fashion was not one of deprivation beyond what one might expect in wartime. Beauty, in this context generated by design, has the capacity to exist in any context.

Alternatives to an unregulated market to govern fashion production and provision exist. In *Governing the Commons* the economist Ostrom (2015/1990, pp. 90) outlines eight design principles for Common Pool Resource Institutions:

1. Clearly defined boundaries: the entities (individuals and households) who have rights to resources from the CPR must be clearly defined, as must the boundaries of the CPR itself.
2. Local conditions: there needs to be alignment between rules for appropriation and provision of common resources and local conditions.
3. Collective-choice arrangements: most individuals impacted by the provision rules can participate in the decision-making process.
4. Monitoring: Monitors who audit CPR conditions and appropriator behaviour are accountable to or are the appropriators.
5. Graduated sanctions: There exists a scale of graduated sanctions for resource appropriators who violate community rules, as assessed by appropriators, accountable officials or both.
6. Conflict resolution mechanisms: Mechanisms of conflict resolution are cheap and easy for appropriators to access.
7. Self-determination of the community: The rights of appropriators to form their own institutions are recognized by higher-level authorities.
8. Nested enterprises: In larger systems, appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities occur in multiple layers of nested enterprises.

Further research should focus on investigating these design principles in local and specific contexts. Fashion is a complex set of systems at local and global levels, and Ostrom's eighth design principle provides useful guidance in considering fashion as a set of nested and overlapping systems or enterprises.

### Visioning New Fashion Worlds

This paper arose from a thought experiment that resulted in a provocation that clothing, like any essential goods dependent upon finite resources, should be free. This paper does not, however, as no paper should, present a universal policy for fashion provision. At best, this

paper can suggest a logic of care, which then needs interrogating in local and specific contexts, from which a policy for fashion provision might arise. This paper continues to question whether the for-profit model within a 'free' market is fit for purpose for any constrained essential good.

There are some recent examples of legislation around the end of life of clothing: how to dispose of clothing, how to recycle it, and so forth. Given the examples of profligacy during the past two decades, why do we not regulate the levels of fashion production or for that matter, consumption? Of course the question may appear unhinged in the context of a 'free' market being regarded an unbreakable natural law, but it is not. We regulate a lot of things, yet clothing, something that is essential physically and psychologically, and is available in finite quantities, is provisioned through a mostly unregulated market. We fashion and sustainability scholars ought to more vocally advocate for regulation. Maldini et al (2021) suggest regulation of advertising and seasonal sales while Maldini et al (2017, p. 58) in a report on Dutch clothing consumption acknowledge that "volumes matter" without explicitly suggesting to regulate volumes of fashion production.

This paper takes the stance that fibre, and therefore fashion clothing, ought to be regarded as a commons, given that earth can support a finite amount of fibre production each year. Considering regulation of clothing production and consumption, Ostrom's (2015/1990) guidelines for governing the commons point to many interesting questions. How do we define communities of appropriators? What are the governance systems? For example, what could local fashion communities learn from models used in community-supported agriculture regarding governance? And, returning to the provocation that led to this paper, that perhaps all clothing should be free, what might provision look like that accounted for fibre and clothing being a constrained resource? For example, could each person have a number of clothing credits over a lifetime? What does equity look like in such an approach? What might an exchange economy be like alongside such an approach? For example, sharing schemes and swaps could be an essential aspect of communities to further foster not just variety but the connections that clothing often provides. Remaking and repair would be integral, done both individually and in collective settings and as part of exchanges. In short, a dynamic diversity of practices that are relevant to local culture, ecosystems and climate is essential, rather than some overarching one. Per Escobar (2018), the approach must be pluriversal to create and maintain spaces for an endless diversity of worldviews of fashion provision. Fletcher & Tham (2019: 54) write: "There are a pluriverse of possible fashion systems if we set fashion free."

Transitional times call for Transition Design. Irwin (2015) notes that “Transition Design solutions have their origins in long-term thinking, are lifestyle-oriented and place-based, and always acknowledge the natural world as the greater context for all design solutions.” This aligns with Fletcher & Tham’s (2019) *Earth Logic*, which explicitly situates fashion within the biosphere of earth, including earth’s biophysical limits or planetary boundaries (Rockström et al, 2009). Transition design calls for a “posture of humility” (Irwin 2015). In part it means taking the stance that we fashion scholars do not know everything about fashion, or that we are not an authority on everything in fashion. Practicing humility with intention opens up lines of inquiry that might otherwise remain invisible to us; standing in humility we are able to authentically ask rich questions about fashion and what we do not know about it. Howell et al (2021) discuss a range of design futuring projects, including Twigger Holroyd’s *Fashion Fictions*. The project reimagines fashion design to explore speculative scenarios with imagination, openness and humility. The authors repeat the earlier call for pluriversality in futuring approaches.

Choosing the path of degrowth to a steady state of imaginative, delightful and pluriversal fashion, requires vision and courage. We have both.

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