

Climate Positive Fashion Futures: Sustainability Upgraded

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Abstract

What is sustainability? How is sustainability perceived in the fashion industry and how is that translated into practices throughout the industry? This paper aims to examine the existing frameworks in sustainable development and the lexicons associated with current sustainable fashion practices in order to analyse the stagnant status quo in pursuing climate positivity input; moreover, in order to redefine sustainability, it builds on the present and further expands into the future to construct a new frame of reference for the projection, speculation and prototypes that unlocks the climate positive futures of fashion.

The first part of the research is designed as an overarching observation and analysis from current sustainable practices in the fashion industry. Secondly, it extracts the observed pattern from the current practices and uses it as a scaffolding for the present and the future. Thirdly, based on emerging innovations, it creates projections and estimations to further speculate future fashion possibilities. Finally, one of the speculative solutions is explored and prototyped. Qualitative literature review, case studies, and comparative analysis are employed for the first three parts of the paper. For the last section, mixed-method research of both qualitative and quantitative scientific experiments is adopted

Ultimately, the key to transition from the environmental burden to benefit is having at least one access to the carbon capture and storage function within the life cycle of the garment production. It could be a forest, a farm or a colony of photosynthetic microorganisms. As a climate positive solution prototype, one Post Carbon Fashion T-shirt is optimistically projected to produce 104% of the oxygen generated by a tree in a day.

Keywords: mitigation hierarchy; climate positive; fashion sustainability; carbon offset; regenerative sustainability; design activism; post carbon fashion; fashion futures

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