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PAD. Pages on Arts and Design

International, peer-reviewed, open access journal

founded by Vanni Pasca in 2005

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Publisher

Aiap Edizioni

via A. Ponchielli 3 – 20129 Milano – Italy aiap@aiap.it – www.aiap.it

PAD © ISSN 1972-7887 #20, Vol. 14, June 2021

www.padjournal.net

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Can Sustainability Be Unsustainable?

Paradoxes and Contradictions of a Necessary Evolution

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Keywords

Sustainable Fashion, Sustainable Consumption, Consumption Models, Fashion and Sustainability Paradox, Fashion Revolution.

Abstract

This contribution aims to discuss "the paradox of sustainability" in the fashion system since it often represents exclusively a communication tool, which transmits more than has been done in the implementation of real programs towards social, environmental and economical sustainability. Juxtaposing the terms "fashion" and "sustainability" perpetuates a contradiction that "makes the expression sustainable fashion an oxymoron rather than a credible tool" (Ricchetti, 2009), or the current emergency condition, raising unresolved questions, places us in front of a total redesign of the system?

1. Is Sustainable Fashion Possible?

In recent years, there has been growing attention to the issue of fashion sustainability due to the increasingly alarming data regarding the overall impact of the system along the entire supply chain and, not least, in the product life cycle. Over the years, many studies have investigated the environmental impact of the clothing industry (Niinimäki et al., 2021; Haseeb et al., 2020; Claudio, 2007; Birtwistle & Moore, 2007) showing that the polluting elements are multiple and not exclusively linked to the production of raw materials, but to a series of intertwined factors ranging from the treatment of raw materials to production processes, to the disposal of products at the end of their very rapid life cycle, all powered by a consumption model recognized as no longer sustainable for some time (Fletcher & Grose, 2012).

Despite the analysis of global trends showing an increase in purchasing sensitivity of consumers - defined today as "conscious" (Angus, Westbrook, 2019) -, the pre-pandemic fashion system seemed to retain an inability to act sustainably. This inability probably lies in the intrinsic obsolescence and the consumption inherent in the fast model which fails, perhaps precisely because of its characteristics and structures, to pay concrete attention to the ethics or sustainability of the actions performed (Gazzola & Panova, 2019; Black & Eckert, 2010). Over the years, the fashion sector has undergone profound transformations, which can be summarized in a different consumption model due to a social change and a decline in the economic conditions of consumers. Moreover, the production relocation together with transports for products and semi-finished products have a considerable polluting impact.

On the other hand, the COVID-19 pandemic and the resulting health emergency have caused further intense transformations of the system (Amed et al, 2020) such as to bring out the pre-existing problems exacerbated, one above all the unsustainability of chains globalized distribution. All of this has suddenly become so evident that it can no longer be ignored, giving rise to the need to trigger and accelerate processes of change that are now considered necessary. With the pandemic, therefore, the awareness of the need for change seems to have consolidated and spread as the urgency to find new development paths for humanity.

The health and humanitarian crisis seem to corroborate the need for change further, but at the same time highlights the enormous forces of resistance it encounters, also highlighting the diversity - and sometimes irreconcilability - of the ideas and proposals that should favour it.

Observing the necessary evolution of fashion towards an ethical and sustainable dimension, two distinct polarities emerge: the first is based on the belief that the crisis of the dominant model can be faced by introducing technological innovation in production processes, in smart textiles, in the processes of traceability or scientific data processing. It is, therefore, an adaptation to the new needs that have emerged, through a correct - and preferably ethical - use of the new emerging digital technologies (Gwilt, 2020). On the other hand, we find an idea based on the overall critique of the dominant development model which questions not only the results that can be observed today but the same assumptions. In this perspective, the current structural crisis is configured not as a hiccup, but as an unsustainable trajectory that needs to be oriented in

entirely different directions. This contribution aims to discuss these two polarities regarding ethical and sustainable fashion since in some cases it manifests itself exclusively in communicative and facade tools (e.g. greenwashing) that transmit more than has actually been done in the implementation of real programs towards social, environmental and economic sustainability. In other cases, however, experiences can be identified as good practices are significant, innovative and consistent with the reference value system, but circumscribed and limited in terms of impact on business models, on the ability to root, disseminate and disseminate the results achieved. We, therefore, intend to discuss "the paradox of sustainability" in the fashion system since juxtaposing the terms "Fashion" and "sustainability" seems to perpetuate a contradiction that "makes the expression sustainable fashion an oxymoron rather than a credible tool" (Ricchetti, 2009). Or does the emergency situation, by raising unresolved questions, place us in front of a total redesign of the system?

2. Fashion and Sustainability Paradox

The issue of sustainability has been going through the fashion system for some time now. Since the first decade of the 2000s, some dramatic events such as the Rana Plaza collapse in 2013 in Bangladesh, have caused consumers to increase individual awareness of the environmental and human impact of an excessive purchase of clothing (Jacobs et al., 2018; Kim et al., 2013).

Every day we are held as witnesses to the impact of our consumption (Castells, 2014) and therefore, faced with the inherent unsustainability of infinite growth within a world made

Sustainability, therefore, still has a vague nature of its own and is subject to numerous interpretations: sometimes an interpretative philosophy, sometimes an exceptional marketing tool (Mcdonald & Oates, 2006) since its function largely depends on a local context (Newtown & Freyfogle, 2005). Already in 2011, Francesco Morace wrote: "over the next 20 years being 'sustainable' will be a necessary feature that every product will have to incorporate to enter the market" (2011). This statement is even more concrete today according to the pre and post COVID-19 fashion trends which seem to suggest a future of fashion only possible in the direction of sustainability.

Moreover, the attention to sustainability, was concrete even long before the pandemic from Covid-19, wherein a world threatened by climate change, the demand of growing populations, and shrinking natural resources, the concept of sustainability has emerged as a silver bullet (Kumar, Rahman, Kazmi & Goyal, 2012). Given these considerations, the purest intent of all activism in the direction of ethical and sustainable fashion has the primary purpose of fighting what the market has promoted for decades with the creation of superfluous and ever-new needs. This contradiction in terms of the fashion system would seem to collide with the increasingly fast phenomenon of recent years.

Hence, sustainability is not a declaration of intent to be included in a company profile, but a business philosophy that crosses the entire structure of processes and products in a profound and transversal way. It is mainly a cultural change of the consumption model as underlined by Lisa McNeill and Rebecca Moore (2015) "changing consumer attitudes to apparel consumption, [...] has led to a culture of impulse buying in the fashion industry, where new styles of clothing are available to the average consumer every week".

Thus, the current consumption model has triggered a vicious circle in which products last longer than fashion itself. Therefore, on the one hand, consumer demand for fast-fashion has prompted brands to accentuate the speed, quantity and size of the production (Remy, Speelman & Swartz, 2016); on the other, "the need to continuously buy new garments is fostered by mass media and business speculations" (Campagna et al., 2017).

Speed, consumerism, obsolescence have been critical words on which fashion in recent years has based its choices in terms of design, supply, production and distribution. The success that this business model has had, and the resulting global economic importance, has somehow legitimized a model that has made waste its strong point. Recently sustainable fashion production and consumption have gained more attention (Yang, Song & Tong, 2017; Vennstrom, 2012), in fact, it is acknowledged that fashion has a significant impact on the environment and society (Bick, Halsey & Ekenga, 2018). However, it is argued that sustainable fashion can be paradoxical by its very nature (Bly, Gwozdz & Reish, 2015; McNeill & Moore, 2015). In this regard, some scholars have defined this phenomenon as the "fashion paradox" (Blake, 2008; Ricchetti, 2009), to underline how the intrinsic obsolescence and waste of the fashion model is paradoxically justified and above all culturally accepted (Dissanayakea & Sinhab, 2015) without too much attention to the ethics or sustainability of the actions carried out in this sector.

3. A Multi-Level Problem

As Fletcher & Grose (2012) write, turning the industrial dimension of fashion towards sustainability requires substantial changes at different levels: in the fashion product (materials, production processes, timing, distribution and disposal), in the functioning of the system (life cycle, impact, needs, speed, globalization) and not least in the practice of fashion design which should conceive durable products, with less obsolescence and possibly disassembled.

The change required of the entire sector also concerns a total, overall sustainability that embraces the term in its various meanings of environmental, social and cultural, and not least economic, sustainability. Sustainability understood in its

transversal, and systemic dimension, therefore, goes through as many steps as those of the supply chains. From the cultivation of fibres, through packaging and sales practices, each phase is exposed to significant risks in terms of impact. This impact is configured at different levels and concerns the risks of damaging the environment, the health and well-being of workers, but also the production of intangible contents such as the obsolescence of garments and trends, the perception of typical beauty, health and success of western fashion (Mora, Rocamora & Volonté, 2014).

The pre-pandemic fashion industry is therefore configured as a concrete and tangible example of transversal unsustainability when reference is made to the increasingly shorter production and delivery times, to the proposal of continuous changes in trends that favour the obsolescence of products, thus encouraging purchases more and more frequent by consumers. The fast fashion industry players have also been criticized for highly polluting and unsafe production as well as for working conditions, effectively embodying a highly unsustainable business from an environmental point of view, but above all social. All these considerations suggest the need for systemic changes and therefore fueled by a considerable complexity in actually taking place.

From the analysis it emerges therefore that sustainability in fashion is difficult to achieve due to the complexity of the system in all its phases and not only, but it also concerns both the production of material goods and intangible contents (Mora, Rocamora & Volonté, 2014) making the sustainability a multi-level problem or, as in the words of Kate Fletcher stratified (Fletcher, 2010).

In 2018, during the Copenhagen Fashion Summit, Eva Kruse highlighted five priorities regarding the challenges of sustainability in the current fashion system.

Challenges were:

- traceability of the production chain the efficient use of energy resources,
- the safety of the workplace,
- innovation in the choice and production of materials,
- the implementation of recycling practices,
- a fair wage system closely linked to the impact that the fourth industrial revolution will have on production processes in the future.

It is therefore clear that the issues are not only numerous but intertwined, making the path towards sustainability in the fashion system not only stratified but also multidisciplinary (Fletcher, 2010). It is, therefore, a complex reality, made up of elements that interact and influence each other in a continuous cycle. What is complex cannot be broken down or unraveled but needs to be understood and considered globally aware that "neither the analysis nor the decomposition of the parts into independent units can constitute valid methods" (Pizzocaro, 2004). Every complex system is characterized by interdependencies and therefore also fashion regarding sustainability inevitably has multiple repercussions in differentiated areas such as company and labour policies, production systems, consumption and consumers.

This reflection makes it significant to direct collective thinking

The areas of intervention that can lead to the sustainability of the fashion system concern and intervene on all stages of the value chain: from the procurement of raw materials to their processing; to production; they involve technologies in the traceability and optimization of processes; they concern aspects of transport and packaging logistics; promotion and communication; and finally - but not least - the cultural model of consumption.

4. Business and Consumers Towards a 'Fashion Revolution' In recent years, the scenario would seem to have substantially changed and further consolidated in the change that occurred with the global COVID-19 pandemic.

In fact, for some years already, it was possible to record important activism by NGOs first, but then also by consumer associations. Activism toward sustainable fashion requires companies to have greater transparency of practices and production processes and also to make considerable efforts towards environmental and social sustainability. This kind of campaign joins the now overt trend confirmed by the Giga and megatrends recorded by monitoring agencies such as Euromonitor, Mc Kinsey.

Those researches demonstrate that the most attentive consumers are guiding the behaviour of companies in favour of the sustainable action of the fashion system. From these surveys, it emerges that consumption habits will be subject to substantial changes due to the growing sensitivity found in consumers and the coronavirus has done nothing but accelerate a process already underway (Amed et al., 2020), which sees sustainability - certainly environmental, but also social and economic - in the centre of attention.

The fashion consumer nowadays is demanding, connoisseur, selective and his/her buying habits are based on personal evaluation of the product. We are genuinely facing a considerable revolution that is affecting the consumer of the fashion world, desecrating previous systems as well as semantic stereotypes.

However, there is still a "knowledge-to-action" –gap both in company policies and in the consumer behaviour on sustainable environmental consumption. Thus, if consumers have been given the role and responsibility of leading the market towards sustainable development (Schaefer & Crane, 2005;

Christensen et al. 2007; Autio et al. 2009; Peattie and Collins 2009) in these years there have been no real changes in people's consumption patterns (Gazzola, Panova, 2019).

Therefore, if contemporary consumers do not show significant attention to sustainability in purchasing behaviour, probably also due to miseducation and disinformation, this changes considerably when observing the preferences of consumers in the near future: in fact, in 2016 only 7% of people declared to buy natural or sustainable clothing, this year the figure has grown to 16% (Amed et al., 2020). Leading this change are the younger generations, as evidenced by the report The State of Fashion, prepared by McKinsey and the magazine The business of Fashion, according to which 31% of consumers born after 1996, the so-called generation Z, declare that they are willing to pay more for products with the lowest environmental impact. The report shows that the younger the consumers are, the more sensitive they are to sustainability issues and demonstrate preferences in purchasing ethical, durable and quality products, even at the cost of buying less.

Hence, if proposal is generally driven by demand, it is essential to underline that in this case, it will probably be a halfway joint since companies are also beginning to interpret sustainability no longer just as a marketing tool but as competitive factor. The coronavirus has accelerated an already fermenting process of change in which many fashion brands were already implementing substantial transformations aimed at sustainability in policies and processes.

5. Will the "New Normal" Bring New Production and Consumption Models?

To address the complexity of the "layered" problem (Fletcher, 2010) companies try to shift their attention from selling products to offering services by implementing product-service systems such as leasing and repair. Certainly, it will be necessary to implement a more transparent and traceable supply chain, which can provide the possibility for the brands themselves and consumers to be aware of all the processing phases. Above all, the transition from a linear to a circular economy will be necessary, which reuses materials extending their duration over time. The fashion system has demonstrated the need to readjust to a slower pace and to seize the opportunities of digitalization in remodelling systems and services. Design plays a fundamental role in a more rational use of resources in the development of new products (Thorpe, 2007; Fletcher & Grose, 2012; Fletcher & Tham, 2014). Here, the designer can exert a substantial influence that enhances the centrality of the creative process rather than the product. Sustainability begins with how the products are conceived in the design phase, to reduce the use of resources, to disassemble, to reuse, recondition or recycle. In this essential role assumed by design, the creative directors show iron will to reduce the pace, and this is already considered significant. The letter from the Belgian designer Dries van Noten, then signed by 250 brands asking "the fashion system" for radical changes.

Moreover, trend forecasting, as a "mass-market fashion engine" (Tham, 2008), can also be an essential agent of change. Why, how much more sustainable production methods can

count if the garments still have a short-term appeal and consumption remains the same? (Kornberg & Svensson, 2018). Although traditional economic literature interprets economic and social objectives as being in contrast with each other (Friedman, 1970; Higgins 2013), in recent decades the belief has become widespread that both objectives can coexist and that social objectives can become a source of competitive advantage (Kim, Choo & Yoon, 2013), year and therefore companies begin to invest in a more responsible type of innovation. Concerning ethical consumption, on the other hand, the discussions have increased in both academia and industry, research suggests that while many consumers have strong convictions toward the consumption of sustainable goods, these convictions do not always translate into action (Gazzola, Sepashvili & Pezzetti, 2018). The pandemic, however, has upset the balance, violently emphasizing the direct link between the environment and health, and so, in a moment of great uncertainty, the fashion sector is seeking its new dimension by planning times and ways of producing and communicating. The path of fashion towards sustainability is, therefore, made up of various factors, as numerous as the steps in the supply chains. But first of all, the operational practices aimed at implementing processes that allow a production system attentive to people and the environment, making an entire sector sustainable, the need to recognize the urgency and importance of the issue.

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She is conducting her studies at the intersection of Design and Science, in particular related to the application of biologic processes in substitution of the conventional manufacturing processes, in order to exploit their potentiality in terms of new aesthetics, languages and fruitions patterns. She has conducted several department researches and experimentations in the field of biomaterials, obtained from the re-use of organic waste from the agri-food chain, and collaborated as teaching assistant on the topic. She is actually part of the team of the Interdepartmental Center Saperi&Co of Sapienza University.

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From 2011 to 2020, she has been a contract lecturer at the School of Design of the Politecnico di Milano and from 2009 to 2018 research fellow at the Design dept of the Politecnico di Milano, developing research on communication for the fashion system and on the relationships between design, culture and territory.

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For over 20 years she worked in projects in Ethiopia, Algeria, Tunisia, Morocco, Yemen, Jordan, Haiti, with the most important national and international donors WHC - UNESCO, UNCCD, World Bank, European Commission, WMF, AICS. Since 2011 she has been collaborating with the DIDA UNIFI especially in projects around Maghreb countries and in the social field promoting Social Design projects and workshops using co-design methodologies.

She is professor of Service Design at DIDA UNIFI, professor of Design for Cultural Heritage in the License Course in Design at Ecole Euro-Méditerranéen d'Architecture Design et Urbanisme de l'Université Euro-Méditerranéene de Fès EMADU – UEMF in Morocco and visiting professor in some universities in Mediterranean countries. debora.giorgi@unifi.it

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Main focus of his line of research are parametric design, medical design, and advanced manufacturing – knowledge acquired during his academic path. The Ph.D. course with industrial characterization has allowed him to carry out and consolidate his research activity, as well as at his university, also at the Escuela Técnica Superior de Ingeniería y Diseño Industrial (Universidad Politécnica de Madrid, Spain) and a company from Campania, based in Gricignano di Aversa, to design a system of innovative orthopedic devices through parametric design.

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He is currently engaged in the research project: "Design, Art and Business: innovation, strategy and sustainable channels for the creation of value", which focuses on the analysis and collection of information relating to the mapping of the relationships between Design, Contemporary Art and Companies starting from the Tuscan territory.

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Her areas of interest are focused on the following themes: Fashion Design, Trend Studies, Scenarios, Consumer Culture, Qualitative Research, Methodologies.

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Designer and PhD, is a Research Fellow at the dept. DADI of the University of Campania "Luigi Vanvitelli". She is the author of "Il design nella società estemporanea" (2015) and "Open Brand. Nuovi linguaggi visivi per la moda" (2019); two monographs that represent her two main strands of research. One oriented to the study and innovation of design and production models of the design oriented industry and the other to innovation and experimentation, including design, of branding.

Since 2015 she has been teaching fashion and communication design courses at the Accademia delle Belle Arti di Napoli. Since 2009 she has been working as a professional visual designer and in 2017 she is co-founder of the Pluff design studio specialized in visual communication projects of national and international importance.

Among the main projects are the visual identity of the Italian Pavilion at the Venice Biennale (2015) and the creative direction of Milano Book City.

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Juliet Seger

She is a vocationally trained tailor, clothing engineer and designer. Her academic path at The University for Applied Sciences Hamburg (Clothing – Technology and Management B. Eng., 2019) and The University of Edinburgh (Design for Change MA, 2020) was paired with diverse practical experience in the fashion industry. Following placements in bespoke tailoring and an extensive tailoring training with the HOLY Fashion Group, she worked as technical designer and studio manager for menswear designer Alex Mullins in London and spent one season with Proenza Schouler in New York. For several years she led sewing workshops for children and supported the student sewing lab at HAW Hamburg. Her label PAID VACATION functions as creative platform for contemporary tailoring and made-to-order fashion design. Since Autumn 2020 Juliet is based in Berlin where she works as fashion product developer. **juliet@paidvacation.de**

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He has been involved in the creation of clothing and accessories collections for the fashion segment for almost thirty years, as a designer and responsible for the development of the collection, he has worked for several companies including the LVMH Group, Redwall, Hettabretz. He is an adjunct professor at the DIDA - UNIFI Department of Architecture, in the CDL in Industrial Design and CDLM Fashion System Design. Lecturer at IED, where he is the coordinator of two three-year courses. He has carried out supplementary teaching activities at the Politecnico di Milano for several years. He has held seminars and workshops in various universities. Stasi is Coordinator of the Steering Committee of the Master's Degree Course in Fashion System Design of the University of Florence - School of Architecture - DIDA.

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Her research interests concern the heritage/creativity sphere within the digital evolution; thus, the application, impact and opportunities that lie in the relationship between digital technologies and cultural heritage. She is currently working on a research project titled "Living archive. Disseminating and reusing the Fashion cultural heritage" founded by Regione Toscana.

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She is a color, materials, and finishes (CMF) designer at Garmin International and previously at Newell Brands spanning professional experience in consumer electronics and home goods. She is also a published researcher on trend forecasting and CMF trends as well as a published theorist on future aesthetics after artificial general intelligence is created and society heads toward artificial superintelligence. Kellie is focused on the direct impact that social and political events have on future aesthetics and their relationship with the economics of design.

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PAD. Pages on Arts and Design

International, peer-reviewed, open access journal ISSN 1972-7887

#20, Vol. 14, June 2021

www.padjournal.net

