

RESPONSIBLE FASHION - HOW SUSTAINABILITY APPROACHES ARE CHANGING THE FASHION INDUSTRIES

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Abstract

Fashion is a complex field of research where innovation could be made both of deeper aspects such as production chain and of "superficial" aspects. Today fashion is not just synonymous with clothes or accessories; seen from another point of view, it plays an important role in the evolution of the culture of a given context. Poetry and attention to detail characterize the context where all Italian products are created. Due to the lack of important raw materials, Italians have since the dawn of time transformed their "know-how" and the care of know-how into a precious resource. In this sense, Italian design is full of examples, starting from small everyday life objects, perhaps of little significance, which stand out for their design, shape, and color, and which have become iconic.

The cultural context plays a crucial role today. While "global fashion" might not exist, a global issue impacting different cultures does instead - and this is precisely sustainability.

If sustainable fashion and ethical luxury, exactly antithetical to the concept of fast fashion, are now the center of a design way closer to *man*- worker, customer, etc. -, then we can say that the *Made in Italy* has always had the characteristics for fashion ethics. We believe that today, especially in Italy, much more attention is paid to the way a product is made: "fashion products", as most products addressed to common people are usually defined, must prove a high level of *care* along their entire production chain: *care* to resources, *care* to their makers, *care* to their buyers.

Keywords: Sustainability, Clothing Industry, Made in Italy, Culture, Fashion

.1 From Clothing to Fashion as a Cultural Artefact

Being a designer in the fashion industry means carrying out design activity with a strong social and cultural impact. This is because our clothing does not simply perform the function of protecting our bodies from the weather, but rather it is an explicit communication tool capable of influencing the perception former (Conti, 2010. p.217). If on one hand a piece of clothing ensures our physical wellbeing, on the other it also influences our psychological wellbeing because “fashion means always looking, being looked at and communicating” (ibidem). In general, objects are often a physical manifestation of human identity, our values and our interpretation of the world. Clothes in particular also provide a pronounced visual language. They are communication tools rich in codes and signals that are used, consciously or unconsciously, to transmit social status, aspirations and frames of mind, thereby contributing to the creation of a link between individuals and society as a whole (Fletcher & Grose, 2012, p.138).

It is worth clarifying that “fashion” and “clothing” have different meanings, although their looks sometimes coincide (Gant, & Chapman, 2007, p.121). Clothing is a physical product, a pure tangible good, that meets a basic requirement and also has the potential to meet a number of needs (Fletcher & Grose, 2012, p.133). Conversely, fashion is the intangible product of symbols and appearances. It is an excess based on emotional needs; it must be built by means of institutions and be spread culturally. Although such premises demonstrate that clothing is largely a good while fashion is based on desire, Black (2008, p.11) points out that the concept becomes less well defined in a consumerist society where most people have many more clothes than they require to meet their needs and purchase clothes in order to renew their wardrobes, with no distinction between ethics and consumption.

In its purest form, fashion “is a magical part of our culture and a celebration of a moment where an individual is in perfect sync with time and place” (Gant, & Chapman, 2007, p.121), thus becoming a part of human expression which is almost impossible to forgo. “Not all clothes are fashion clothes and not all fashion finds expression in garment form. Yet where the fashion sector and the clothing industry come together (in fashion clothes) our emotional needs are made manifest as garments” (ibidem). However, in a social context shaped by capitalism, the consumption of resources arises from interference between emotional meets and physical goods. Thus, a sensation of short-lived wellbeing is promoted, which then gives way to a feeling of dissatisfaction. Conversely, fashion is the intangible product of symbols and appearances. It is an excess based on emotional needs; it must be built by means of institutions and be spread culturally (ibidem).

A summary of the observations given above is found in the words of Black: “Fashion is full of contradictions - it is ephemeral and cyclical, referencing the past but constantly embracing the new; it represents an expression of personal identity and difference, while also demonstrating belonging to a group; it can be both an individual act of “performing” ourselves, and a collective experience; fashion exists for the few as one-off couture pieces or tailor-made bespoke clothing, and for the many as mass produced volume clothing. Alternatively, make-it-yourself and customised individual pieces have recently captured the imagination of a younger generation and grown in popularity” (Black, 2008, p.17). In this regard, Fletcher and Grose (2012, p.133) highlight the potential for fashion to be manipulated due to its potency as a personal and social satisfier. The resulting problem is that people become highly involved with trends without understanding the nature of commercial influences, which are built and designed to take advantage of desires and increase sales.

.2 Methodology

This qualitative, exploratory research, which is primarily based on literature analysis, involves inductive and deductive processes (Creswell, 2014; Bauer & Gaskell, 2013). As a result, the research should be deemed to have a systemic constructionist approach, the premise of which is based on the object of study providing the basis for a multidisciplinary approach with the aim of becoming relevant to the current landscape of scientific-cultural debate. The Grounded Theory methodology (Glaser and Strauss, 2017), regarding primarily the coding of data and their interpretation with regard to the main topic, becomes strategic for the definition of the problems: in this case, the examination of the literature in question becomes the main area of investigation. Lastly, as Dewey pointed out, "educational practices [...] are the sole source of the ultimate problems to be investigated", but they also represent the "final test of value of the conclusions of all researches" (Dewey, 1984, p.16-17).

.3 Introduction of Sustainable Themes in the Fashion Sector

The first traces of a collective awareness regarding the impact of clothing manufacturing linked to consumer lifestyles emerged in the 1960s (Henninger *et al.*, 2016).

Despite this, in the 1990s, as reported by Gant and Chapman (2007, p. 120), the fashion world trivialised the real debate relating to chemical substances and industrial pollution by launching the "eco chic" trend, which was dominated by natural looking colours and fibres. This led the masses to stigmatise sustainability, associating it with ridiculous styling in poor taste, distancing themselves from the real fight against the excesses of consumerism. It is only in recent years that the topic has begun to emerge as a means of preserving humankind and the planet, by also involving the masses who are incentivised to open their eyes to increasingly frequent climate catastrophes. This has pushed

many to reflect on their consumer lifestyle and on modern industrial life (Fletcher & Grose, 2012, p.138), owing also to a change in cultural and social norms (Black, 2008, p.11).

Although today consumers demonstrate a desire to know more about how, where and in what conditions their clothes are made (Black, 2008, p.17), there is a palpable feeling of confusion around the theme of sustainability. On one hand, there are those that do not take an interest in the subject, they are sceptical or ignore the issue; on the other, the increasing number of people interested are poorly informed about the subject. For example, in the questionnaire in the study "What is sustainable fashion?" (Henninger *et al.*, 2016) sustainability was defined as: "sustainably sourced clothing, fair trade"; "sourced from sustainable resources and manufactured in a similar fashion"; or "produced from sustainable materials/materials which are made from sustainable resources" It is evident that for the 300 participants sustainability is closely linked to raw materials and manufacturing processes, but social aspects such as fair salaries and working conditions are ignored. At this point one asks what percentage of this confusion is designed and intentionally driven by an unethical consumerist industry so as to ward off any potential enemies. From the survey it emerged that the participants limit their actions, in terms of ethical fashion, to what they feel fits with their everyday consumption patterns, with no concern however for the goal of breaking down the paradigms embodied by today's fast fashion (ibidem). It proves to be clear that "Influencing the fashion mainstream is one of the greatest challenges for sustainability and also one of its greatest potentials. Fashion touches the lives of almost everyone, every day, and can be an effective vehicle for changing minds, attitudes and behaviour." (Fletcher & Grose, 2012, p.122).

.4 The Birth of Sustainable Ethics and an Awakening in The Fashion Sector

The concept of sustainability, as it is known today, began to develop in the 1960s when people started to see some of the

negative consequences that industrial manufacturing methods had on the health of workers and the environment. The origin of the concept itself derives from a report by the World Commission on the Environment and Development (WCED), "Our Common Future" (Brundtland), published in 1987 and also known as the Brundtland Report, taking the name of the president who commissioned the report. Within its pages, sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In this definition, reference is made to an environment as both a social and natural context, clarifying an important ethical concept: the responsibility of the generations of today towards future generations. Thus at least two aspects of eco-sustainability are touched upon: the preservation of resources and the environmental equilibrium of our planet. Chapman (2015) also underlines this aspect with the following words: "Human destruction of the natural world is a crisis of behaviour, not simply of energy and material. It is about people, the choices we make and the dreams we chase" (2015, p.1).

More recently, the 2005 world summit referred to the reinforcement of the components of sustainable development which are more commonly referred to as the three pillars of sustainability: social development, economic development and environmental protection (A/RES/60/1 2005 World Summit Outcome). Since the end of the eighteenth century, the human species has begun to irremediably influence the planet's overall balances (Bologna & Yunus, 2010, p.17) and now it seems that economic growth based on material goods has almost exhausted its beneficial effects for our societies. For thousands of years, the most effective way to improve the quality of human life was to increase the standard of material life. But now, the priorities of the majority of citizens of wealthy countries no longer consist of procuring food, protecting themselves from the elements, having access to potable water and keeping warm; conversely, many individuals in this society would like to eat less rather than

more and, for the first time in history, in western countries the poor are more likely to be overweight than the rich (Bologna & Yunus, 2010, p.22). These are just some of the findings that demonstrate that the current economic system, based on continual and quantitative material already has serious and obvious difficulties in being sustained by the network of ecosystems, that is nature, which allow its survival. In 2000, during the International Geosphere Biosphere Programme (IGBP) which was held in Mexico in Cuernavaca, the Nobel Laureate for Chemistry Paul Crutzen proposed to define the geological epoch in which we are living by the name Anthropocene, since it is primarily characterised by the impact of mankind on the environment (Bologna & Yunus, 2010, p.16). He remarked: "During the Anthropocene, we have been the single factor that has most affected changes to the climate and the Earth's surface. We cannot go back. We can however study the ongoing process of transformation, learn to monitor it and attempt to manage it." It is natural at this point to ask ourselves how it is that the concept of sustainability has only emerged in recent decades. According to Gant and Chapman (2007, p.3), the effects of the ecological changes are now extremely evident and difficult to ignore, having an immediate and tangible impact on human health and wellbeing. In addition, they have an increasingly clear impact on an economic level, on the cost of energy and raw materials. Indeed, the depletion of resources, which represent the input of the manufacturing and consumption system, is considered to be an obstacle to current economic livelihood (Manzini & Vezzoli, 1998, p. 288). Although it can be "cynically perceived as anthropocentrism at work" (Gant & Chapman, 2007, p.3) and distant from the charitable idea often associated with sustainable action, it in any case remains a thought and an ideology that may lead to efficient solutions. Even according to Black (2008, p.56), emotional engagement is an incentive: many supporters are now calling for different measures of human progress, in addition to capitalist economic sustainability in order to integrate economic accountability.

In recent years, there seems to have been a collective awakening to the significance of living in an interconnected world, consisting of a society characterised by a constant search for individuality and collective identity, by way of reasserting the differences in our ethical values.

While respecting the latter, it however seems legitimate to assert that certain issues on a planetary level lead to the definition of values and objectives that are likewise general. This is because each person should recognise himself or herself as an integral part of planet Earth. Sustainability therefore finds itself at the peak of the pyramid of these universal values, as the principle of the preservation of future generations (Manzini & Vezzoli, 1998). However, it should be noted that the term "sustainability" is so wide and extensive that it can become useless. It is found in myriad definitions: from sustainable agriculture to sustainable economic growth, to sustainable development, to sustainable communities and the production of sustainable energy, to give some examples. This omnipresence prompts a reflection that people conclude that the dominant industrial manufacturing models are unsustainable. (Chapman, 2015, p.25, 28) Environmental sustainability is not a direction in which to travel, rather a goal to be reached. This is another reason for which not everything that might be seen as an improvement in environmental terms may be considered as truly sustainable. As documented by the report "A new textiles economy: redesigning fashion's future" (Morlet et al., 2017), the production of clothing virtually doubled over the course of just 15 years, influenced by the growth of the middle-class population. One need only consider that over the last 50 years the world's population has increased by over 50% (Chapman, 2015, p.4). If growth were to continue as forecast, the total sales of clothing in 2050 will be more than triple that of today. This expansion relates primarily to fast fashion, that is items of short-lived stylistic content and low quality which compromises their durability. It is not surprising then that compared to the beginning of the 2000s, the average number of times a garment is worn before it ceases to be used has decreased by 36% (Morlet et al., 2017).

In the current climate of growing preoccupation about environmental matters and their consequences for society, the sizeable consumption of fashion must not only slow down, but transform itself (Black, 2008, p.18).

We must not overlook the fact that one in six people in the world finds employment in the fashion and textile industries (Ibidem). Of these, those that work in manufacturing often find themselves unprotected and operating in dangerous working environments caused by unsafe processes and the hazardous substances used during production. It has been estimated that the use of substances that are hazardous to health in textile manufacturing has negative effects on farmers, workers; but they are also released during use, harming the consumer and the environment (Morlet et al., 2017). In order to tackle the disadvantages of the current system, one must understand and spread awareness of the underlying system, explain its consequences, explore and uncover valid alternatives (Johnson, et al., 2020, p. 62). The main problem is the linear structure of the system for the manufacture, distribution and use of clothing, which is based on a predominantly take-make-dispose model. This means that enormous volumes of non-renewable resources are employed to produce garments that are used for a certain period and then, in almost all cases, sent to landfill or incinerators. In short, this linear system uses large quantities of resources and has a negative impact on both the environment, which is polluted and degraded, and society, on a local and global level. As Chapman (2015) observes "Earth is finite, balanced, synergistic and reactive, and yet we design the world as though it were separable, mechanical and lasting" (2015, p.26).

.5 From the Linear Economic System to the Circular Economy

With regard to clothing, the consumerist economy consists of the use of a linear economic and manufacturing system. This system is used in the majority of industries and is often

precarious and unsustainable, “also representing however a great opportunity for the implementation of new eco-sustainable economic and development models that involve, on different levels, the collective, manufacturing assets and businesses” (Corradini & Tartaglione, 2013).

This system is also known as “take-make-dispose”, of which two flows can be identified. The incoming flows are the production factors (capital, labour, land), the raw materials and the energy sources necessary to power the manufacturing. The outgoing flows are instead the products and services provided which are connected to the former. It is a system that has characterised economic thought between the end of the twentieth century and the start of the twenty-first.

The driving forces of this system, that is the mass usage of raw materials that encourage an increasingly fast-paced production, are not compatible with the laws of nature. Indeed, the resources necessary for it to function would have to be infinite to meet the current rate of consumption. If this model has been feasible for a number of decades it is because the principle of fairness that aims to preserve resources for future generations has long been overlooked. The two main issues in this regard are: the use of non-renewable resources and the frenetic use of renewable resources such that does not allow the same to regenerate; therefore, one cannot pretend that a linear manufacturing system can work forever on a finite planet. In this regard, every year Global Footprint Network, a no-profit association that develops tools to promote sustainability, calculates the number of days it takes for humanity’s demand for resources to exceed what Earth can regenerate in that year. The date in which the demand for resources and services overtakes that which the Earth can generate is called “Earth Overshoot Day” and since 2005 it has fallen in August, more than four months before the end of the year (Overshoot Day, n.d.) . This means that humanity consumes resources as if it had 1.70 planets at its disposal.

According to the report conducted by the Ellen MacArthur Foundation (Morlet *et al.*, 2017), an awakening by both industries and their customers has started to weaken the pillars on which the linear model is based. Brands and retailers are engaging with specific environmental or societal challenges that affect their supply chains, through both individual efforts and through specifically organised initiatives. However, the report highlights how the approaches adopted to date focus for the most part on reducing the impact of the linear system rather than aiming to resolving the systemic issues by directly addressing the root causes of the waste such as, for example, low clothing utilisation before disposal. This type of method takes the name of a reactive approach and comprises the operations aimed at reducing or resolving the problem of the end-of-life of a product, and therefore the waste, once it has been produced This category includes all the education and waste collection efforts in the clothing industry for the recovery of fibres or textiles (Corradini & Tartaglione, 2013). With the preceding statement, the Ellen MacArthur Foundation highlights the lack of a proactive approach to the issue. A proactive attitude instead comprises all those measures implemented with the aim of reducing or minimising the waste at source (Ibidem). On a design level, the choice of a proactive approach implies that the designer of the garment already has a precise idea of what will happen to it after its use; this implies that even the consumer is aware of this: “the economic/environmental prerequisite for a life cycle development approach is an upstream intervention to prevent harmful emissions and reduce the consumption of resources” (Vezzoli *et al.*, 2009, p. 24).

Since the 1990s, research in the field of design has begun to focus on the entire life cycle of a product, with the aim of making the processes that obtain the product sustainable, just like the product itself. Thus the “life cycle design” approach was created with the intention of drawing attention to the life cycle of the product, from its creation to its disposal, thus also considering the associated services, from a circular perspective.

Design for sustainability, to be really considered such, must found its proposals on a comparative assessment of the environmental implications of the different technically, economically and socially acceptable solutions, and must manifest itself in the production of products and services designed while taking into account their entire life cycle. That is to say using methodologies put into place by Life Cycle Design (Manzini & Vezzoli, 1998, p.18).

It follows from the above that for the design of sustainable knitwear, the "life cycle design" becomes a complementary activity for the development of products that are sensitive to ethical and environmental issues. In this context, the need for a multidisciplinary designer emerges again, as confirmed by the experts in sustainable products, Manzini and Vezzoli (1998): "The limits of design are there to demonstrate that it is no longer possible to conceive of a single design activity without relating it to the series of relationships that the product will have in the environment over the course of its life cycle" (1998, p.95).

The best outcome of the "life cycle design" approach aims to best emulate the equation that applies in nature whereby waste becomes food, and therefore anything that reaches the end of its biological cycle turns into nutrients for the environment of which it is part. Manzini and Vezzoli (1998) explain that there are different routes to achieving this result; one of these is an orientation towards biocompatibility, that is the creation of a production-consumption system capable of basing itself exclusively on renewable resources without however exceeding the production limits of the natural systems that generate them. Similarly, it is capable of re-issuing the completely biodegradable waste in the same initial natural conditions, without such waste building up. "An orientation towards biocompatibility can therefore be seen as a form of naturalisation of production and consumption systems. In this sense, the quantity and quality of the products and

services that the production system can provide are extremely limited." (1998, p.26)

Another route might be non-interference made possible by means of a closed production and consumption system by forming technological cycles that are as independent as possible from natural cycles, which is to say by attempting to reach a zero value of input and output between the two systems (Manzini & Vezzoli, 1998, p.27). Today it is most likely that these two extreme solutions will be realised through an integrated combination of bio-cycles and techno-cycles capable of constituting the necessary "material dimension" of any hypothetical sustainable production and consumption system (Manzini & Vezzoli, 1998, p.28).

Another possible scenario for reducing the consumption of resources and at the same time avoiding an economic catastrophe is considering an economy in which companies do not restrict themselves to producing and selling goods, but rather integrate their business in the sale of outcomes/services. For example, no longer selling a car, but mobility; no more washing machines, but cleaning and maintenance of clothes. A producer capable of offering a mix of products and services to complement them, might develop their business while also reducing material consumption; the "sharing economy" falls under this category.

Various studies propose a broader vision capable of considering not only the product itself, but also the services, that is of the socio-economic system that delivers them and the end user (Vezzoli. Et al., 2009, p.148). In this scenario, the business moves from the design and sale of clothing, to offering an integrated product and service combination capable of meeting a specific wellbeing demand, for example the potential of having a repair service associated with the purchase of the garment. The transformation of the traditional forms of sale, ownership, consumption and disposal of products also entails a change in the relationships between

the manufacturer and the service supplier on one hand, and the end user on the other. The relationship does not end with the purchase but extends for the entire duration of the service. Such progress would bring environmental advantages but also a solution for certain customer needs. An example already established in fashion is the hiring of formal dress exclusively for the day of an event.

While these services often free the consumer from problems of maintenance and disposal of the products, there is an opportunity for the producer or service provider to improve their competitiveness and market position owing to the differentiation of the offering (Vezzoli. Et al., 2009, p.148). At the root of these changes there is a need for a cultural shift capable of making consumers willing to consider the services as a way of better satisfying their needs than individual ownership (Vezzoli. et al., 2009, p.148).

.6 Conclusions. The Role of the Designer at the Service of Sustainability

"The design practice acts as an agent that can detect cultural evolutions, identify their drivers and patterns of change, and then design a possible new cultural environment, which can embed the newly found meaning and drive the innovation of products and services" (Bertola, et al., 2016). It is evident that the role of the designer has radically changed with regard to the traditional world-class creative and artisanal brilliance, which is found in haute couture, and even in relation to the role of a stylist as an exclusive creative engine around which a fashion house revolves (Bertola, 2010, p.29). Another attribute that differentiates designers is their propensity to work as a team in order to make a contribution throughout the production chain. The intention of this discipline is expressed in its etymology, from the Latin *projectare* "to thrust forward", "to put forward"; it is an act that implies the capacity to go beyond what is known, "here and now", envisioning that which there is an intention to create.

These elements reflect an implicit knowledge in a consolidated professional process: being a fashion designer therefore means interpreting the spirit of the time and designing innovative ways of wearing clothing, and in the manner of reinterpreting the behaviour or an attitude that this requires (Conti & Motta, 2020). Designers are therefore "user-innovators" with the expertise to interpret the values of a specific social community, identifying the signs of evolution before other sectors (Colombi & Simonelli, 2005).

Such premises give rise to an important responsibility to not look away from the real needs of people, thereby risking the creation of undesirable products that automatically become waste to be disposed of.

If we are serious about the ideals, we strive for making fashion more sustainable, the question must become how we can offer fashion users a wider interface towards the ideal practices we say we promote? If we are earnest about the virtues of sustainability, the honesty, integrity, authenticity and commodity support, how can we think of fashion as a tool for cultivating these ideals in the living practices of our users for these values? If we believe that design can embody values such as authenticity, honesty, or integrity, we cannot merely harbor them commodities...We must change focus from fashionable goods to the practices of fashion; what we can call "fashion-abilities" (Karaosman, 2021, p. 110).

"Design is a needed, necessary and valuable process of invention and innovation, with the potential to take us closer to a sustainable society - a society in which we design for sustainable

consumption" (Gant, & Chapman, 2007, p.7). Still too often it is the case that sustainability is relegated to being just a word used as a marketing tool, falling foul of that which is defined as greenwashing. It falls to designers to go beyond

the hype and commit their energies to designing solutions that are integral to the ethical and environmental problems that they observe.

Using their role to influence and shape lifestyles, they have the ability to promote change in society (Diegel, et al., 2010). This discipline may be a winning strategy for resolving some of the big problems that characterise the twenty-first century, if it is applied using ecological principles as a design method. The three areas in which to act are:

- Economic sustainability, that is the ability to make a profit, which is relatively simple to measure since it is largely calculable;
- Social sustainability, which is more complicated to measure due to its intangible nature and the subjectivity of many wellbeing factors;
- Environmental sustainability, which can be quantified by considering the entire life cycle of a product.

The ideal design is one which aims to obtain a threefold outcome by maximising all three of the areas whereby it protects the environment, brings turnover to the business and improves society. (Ibidem).

On the basis such premises, the creation and development of the product, the evolution of the market and retailing, the management of communications and the planning of the entire life cycle of the product from the raw materials to its disposal, are the main processes in which design innovation could occur (Bertola & Colombi, 2014).

Lastly, we should not underestimate the challenge of sustainable development on a social level

The data collected by the United Kingdom government on this matter highlight this factor (Gant & Chapman, 2007, p.23).

Alongside scientists focussing on the physical aspects of a social metabolism for the prevention of an environmental catastrophe, there is a need for designers and producers to be able to facilitate a transition in order to reach this goal (Manzini & Vezzoli, 1998, p.25). Sustainability will be the result of a "complex process of social, cultural and technological innovation within which there will be space for multiple options corresponding to various sensibilities and different opportunities" (Ibidem). Proposing to develop design for sustainability therefore means imagining new scenarios corresponding to emerging lifestyles, promoting the capacity of the production system to respond to the social demand of wellbeing, basing the articles on quality standards and using a quantity of environmental resources which is drastically lower than is currently used. Lastly, design is asked to modify the structure itself of the demand for results, redefining the judgements of values and the quality standards to which the idea of wellbeing is associated (Manzini & Vezzoli, 1998, p.16, 50).

The transition itself will only take place if a large number of individuals recognise it as an opportunity to improve their own wellbeing (Manzini & Vezzoli, 1998, p.49).

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