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SUSTAINABLE FASHION

Abstract. *The article considers the key aspects of the existence of the concept of sustainable fashion. The study was conducted on the basis of the analysis of the activities of sustainable brands in the Ukrainian and foreign markets, their ashes in world fashion. The main problems and their solutions for the formation of sustainable fashion are presented.*

Keywords: *sustainable fashion; Zero Waste Design; resources; ecology.*

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ЕКОЛОГІЧНА МОДА

Анотація. *В статті розглянуто ключові аспекти існування поняття екологічної моди. Дослідження проведено на основі аналізу діяльності екологічних брендів на українському і закордонному ринках, їх золі у світовій моді. Викладено основні проблеми та їх вирішення для формування екологічної моди.*

Ключові слова: *екологічна мода; Zero Waste Design; ресурси; екологія*

Introduction. The direction of sustainable fashion is becoming more and more popular every year. But why has the topic of ecology conquered the fashion industry?

The increased environmental awareness of customers and designers is the main reason why sustainable direction is becoming more demanded. In the modern world the phrase “Save the Planet together” has become the world anthem. Moreover, sustainability improves the quality of our lives, protects our ecosystem and preserves natural resources for future generations. It is always focused on long-term prospects.

The basic concepts and features of the sustainable fashion have been the subject of work of many designers: Stella McCartney, Timo Rissanen, Holly McQuillan, Julian Roberts, Deb Cumming, Nina Weaver’s, Anke Gruendel’s, Varpu Rapeli and Ronja Aalto, Dr. Kate Goldsworthy and David Telfer, Rickard Lindqvist.

The aim of the research. The aim of the research is to study basic criteria for sustainable fashion, general fashion trend in the world, directions of modern fashion and prospects for the development of sustainable fashion.

Results of the investigation. Sustainable brands focus on quality and long lasting clothing. These brands are based on their own style, not on trends that change dynamically. It helps produce and use less items of clothing. Furthermore, such brands try to use all materials and wastes from previous models.

Talking about environmental benefits, sustainable design may save water resources and animal life. For the process of dyeing and finishing all types of fabrics the fashion industry consumes large amount of water. It takes about 2,720 liters of water to make one cotton shirt that is what experts estimate. Moreover, a manufacture heavily pollutes freshwater with toxic chemicals from the production process. Nevertheless, sustainable brands have a "water budget" that limits water usage during production of clothing. All materials and fabrics used by these brands are natural, such as linen, hemp, and organic cotton. Materials can also be renewable or recycled, but the most important factor is they require little or no water.

Each eco-brand in the world has its own ideology and here are several options for development of the concept: upcycling (creative reuse, is the process of transforming waste materials, useless or unwanted products into new product), creation of design out of the time (this idea helps to create clothes that people will not change every season, clothes should be more versatile, this way the problem of overproduction is solved), use of eco materials,

individual tailoring (helps to reduce excess production, solving the problem of unnecessary waste), manufacture of vintage clothing (vintage clothing goes out of time so it can serve a person longer and still be fashionable and unique), ethical attitude towards employees.

One of the greatest disadvantages of mass market is working conditions. The low clothing costs are possible because of harsh working conditions for garment workers. It is well known that workers in mass market factories are paid far below a living wage. They have to work long hours under pressure and bad conditions. Child labor is also often exploited in production, while choosing sustainable brand a customer can be sure that all workers are well paid and have opportunity to work using modern equipment and under good conditions as well.

Talking about materials there is no such thing as 100 percent sustainable fabric, but some are much better than others. A couple of the major determining factors when labelling sustainable materials are the amount of resources used to produce the material and the life cycle analysis of the product.

Eco-friendly fibers are those the production process of which has a low impact on the environment and meets at least half of the below criteria:

- Low water need.
- Low energy need.
- Made of wastes.
- From renewable resources.
- Chemicals control.
- No GMO.
- No soil erosion.
- Biodegradable.

There are four main categories of eco-friendly materials:

- Recycled fibers (made with waste material).
- Recycled polyester.
- Recycled nylon.
- Recycled cotton.
- Recycled wool.
- Recycled textile.
- Plant- based fibers (with low environmental impact).
- Organic cotton.
- Linen.
- Hemp.
- Ramie.
- Natural rubber.
- Animal-based fibers (produced in sustainable).
- Alpaca.
- Silk.
- Responsible wool.
- Responsible chashmere.
- Responsible leather.
- Responsible down.
- Semi-synthetic (with low environmental impact).
- Lyocell/Tencel.
- Organic Fiber.
- Pineapple fiber.

- Sustainable viscose.
- Cupro.

It is believed that the main direction in sustainable fashion is Zero Waste Design. Zero waste fashion design addresses inefficiency in fabric. The concept includes the ideology that there should be no waste from production of clothes. All remaining materials are interpreted into new models. A broad definition of zero waste fashion design could, for example, include garment disposal strategies as a design consideration or unique pattern cutting.

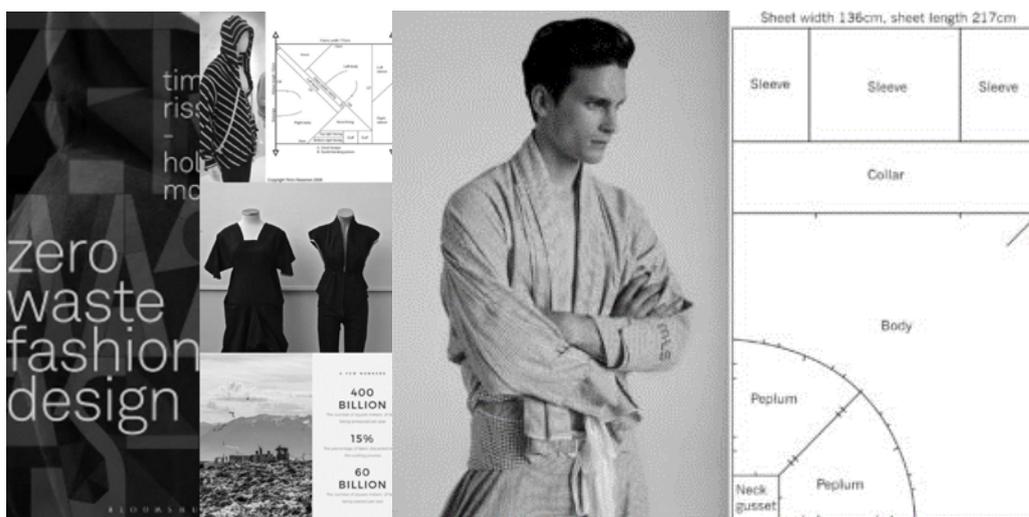


Figure 1. Timo Rissanen (2011) designed and made these pajamas from his grandmother’s bedsheets dating to the 1940s. The body of the pajama top is based on a quarter circle, with the center back on bias, and fronts on straight and cross grains



Figure 2. Dress by Zandra Rhodes (1980) demonstrates Rhodes's love and respect for textiles. The garment pattern is in part determined by the geometric form of the print.
Figure 13a: San Diego History Center

First this concept was used when raw materials were scarce. At that time people treated fabrics with great respect and care. They tried not to lose any part of it.

Nowadays this idea continues to develop and is gaining even larger scale. To confirm this here is an example of famous brand A-POC Able Issey Miyake. A-POC was created in 1998 and during the time has made a revolution in the process of clothing making and still popular

to this day. A-POC is evolving continually through the development of new materials including recycled fibers and organics together with development of new processing technology. In addition this concept draws attention to new production methods, autonomy for customers` selection, practicality for comfortable wearing and environment friendly idea to reduce waste of fabrics and materials.

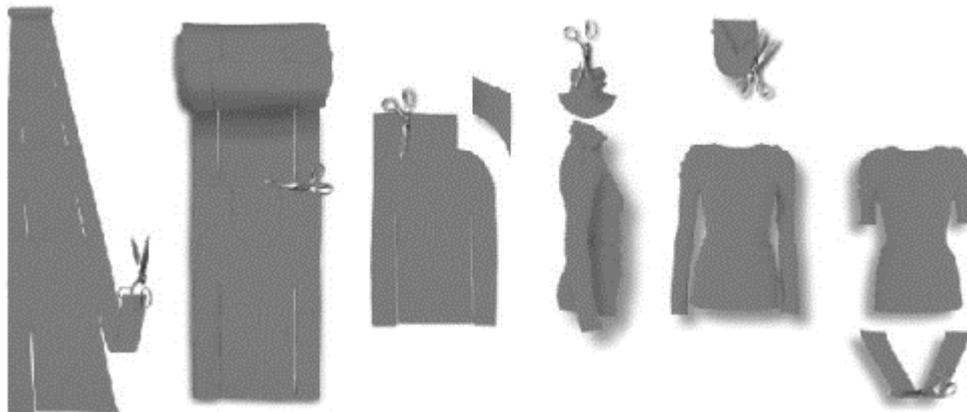


Figure 3. ISSEY MIYAKE A-POC

There are two categories of textile wastes: wastes created by industry and by a consumer. Talking about manufacture wastes, it is a big problem of modern fashion. According to data for 2015 the total amount of fabrics produced globally was around 400 billion square meters. 15% from this percentage is the average amount of fabrics that are wasted while cutting and making garments. This is approximately 60 billion square meters.

Pattern cutters are not usually involved in the design process. However, pattern cutting is the main process in zero waste design. Most pattern cutters take part in the whole process of creating, starting from sketching and exploring the idea.

However, shifting the conversation beyond zero waste design methods like whole garment knitting, 3D printing and digital sampling, towards more systemic change like localized manufacturing and collaborative supply chains. Zero Waste Fashion is more than just logical arranging pattern pieces. Design is part of a system. It sounds self-evident, but in most cases in industry, design is considered one little moment in a big long machine. Zero waste requires that you have an understanding of the fabric at a far more complex and deeper level than a conventional designer in industry normally has.

Conclusions. It must be said that sustainable fashion is our present and the ideas of the future. To confirm this on 23 of August 32 fashion companies, including pillars of the world's luxury fashion market – Chanel, Ralph Lauren, and Prada among them – as well as fast fashion players like H&M Group and Zara, announced that they were signing the Fashion Pact, a non-legally binding agreement to combat greenhouse gasses and emphasize sustainability in the industry.

The pact was announced at the Group of 7 summit in Biarritz, France. “This Fashion Pact is about saying: We have acknowledged the 21st century's environmental issues, and we are taking our responsibility through collective action and common objectives”, Kering chief executive François-Henri Pinault, who is organizing the Pact at the behest of French President Emmanuel Macron, emailed the New York Times.

Overall, sustainable fashion is the main and the most perspective direction in fashion industry. By using these technics humanity could protect the environment and help production workers. Humanity has the opportunity to make the world better and fashion industry can start improving it.

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