

ECO-FASHION AND RECYCLING TECHNOLOGIES AS A NEW APPROACH TO SOLVING SOME ENVIROMENTAL PROBLEMS

Bobrenko Y.V., *yanashved2001@gmail.com*
Kyiv National University of Technologies and Design

Recent events in the world are a sharp reminder to humanity that is not everything as wonderful as we would like it to be. Constant cataclysms, natural disasters and major problems with the ecological system on the planet are forcing us to rethink our way of life and existence. It's time to remember that we have to leave behind us something beautiful, not just piles of garbage and dirt!

The environmental problems through the textile industry are far greater than we can imagine. The industry consumes about 132,000,000 tons of coal and from 6 to 9 billion liters of water every year, and 60 of the more than 100 billion garments produced each year are discarded by people within 12 months of purchase. All this things have a negative impact on the environment, destroying entire ecosystems, polluting and poisoning everything around.

Plastic in the oceans, the “sixth continent” of garbage, the mass of textile waste, low wages of textile workers – not a complete list of problems that have arisen in recent decades [1].

Sustainable fashion is still a little-known phenomenon for Ukraine, but it is rapidly gaining momentum in our country as well. In the light of recent events, organizations such as “Sustainable fashion pad”, which acquaint society with such phenomena, are gaining popularity. More and more people are becoming interested in this topic. Fashion brands, famous stars, cultural and artistic figures, large companies, fashion influencers also did not stay away. They are actively concerned about this situation, so they began to promote “conscious fashion” and the rational use of clothing in each of their new collections and advertising campaigns.

So what is a “fast fashion”, sustainable fashion and how important is upcycling nowadays, how mass production of clothes has a negative impact on the environment and where to start and what to pay attention to a young fashion brand that has adopted the ideas of “zero waste” as consume less clothes, choose more environmentally friendly materials and, in general, pay more attention to what clothes we buy today and what we wear.

Coverage of the topic of awareness or slow fashion is planned in the world in the future through various media, verbal and nonverbal advertising.

The main purpose of this scientific article is to disseminate this important information among readers, to draw public attention to the problems we have today, to present and explain different ways to solve this problem, a comprehensive assessment of world and domestic experience in this work.

The international expansion of fast fashion exacerbates the problem globally. Fast Fashion focuses on speed and low cost in order to present new collections over and over again, copying images of celebrities or cheap brands. Producing cheaply and a lot, the mass

market makes clothes “disposable”. This is particularly dangerous for the environment, as the pressure to reduce the cost and time required to obtain a product from design to shop means that there will be many environmental consequences. This is the main problem in this area.

The modern chemical and physical industry, which is probably the most important component in the production of modern fabrics and clothing, has also addressed the issue of environmental pollution. Through various experiments and observations, scientists have agreed that various household and industrial waste (plastic packaging, various types of rubber, metal, pellicles) can be processed into useful and high-quality high-tech and high-molecular fabrics and materials for sewing, using the latest chemical and physical technological equipment.

Nowadays, technology does not stand still. More and more products and materials appear on the market every day. Since the 19th century, light industry has been constantly evolving and improving. With the invention of new chemical elements, compounds, technologies and substances, new high-tech materials for clothing and footwear are emerging. Today, modern clothing is made from a variety of materials, which are due to modern chemical laboratories and constant research on the processing of residues from production and industrial waste: rubber, glass, plastics, silicones, metal fibers, nonwovens and other types [5].

Thus, non-traditional materials are the same plastic containers, rubber, silicones, old clothes, metals that have been processed by long and complex chemical and physical processes. High-tech materials are also widely used in the manufacture of various types of overalls, tracksuits, evening and concert attire. Clothing created specifically for firefighters, athletes, doctors, and military personnel is now called “smart clothing” [3, 4].

Upcycling – creating clothes from used clothes. Upcycling differs from recycling in that in the first case the main goal of the designer is to minimize waste, and in the second – to create a thing with added value. The added value appears as a result of the fact that the designer invests his creativity in production.

Upcycling is difficult to scale if it is a design approach of a particular brand. Used materials (post-consumer waste – materials that have been used) require a lot of effort to bring them to a state where they can be worked with again. At the same time, upcycling can be done at home: alter old things, repair, make applications and stripes, create something new from two or three things [2].

So, this direction and modern science save our planet from environmental catastrophe, pollution and create the latest materials that help people in everyday life.

The results of this research are a number of collected facts and information describing specific environmental problems associated with the production and use of clothing, methods of combating and preventing the following problems: environmental pollution by industrial waste, garbage, declining natural resources, irrational use of purchased clothing, collected information on waste processing methods – upcycling and recycling.

So, let’s discuss the results of this article. People need to get rid of the misconception that conscious fashion only means using your own clothes already in the closet. There are

many small and easy changes that can be made. Together, they will be of great importance to the environment, both socially and ecologically.

For example:

- buy less and choose better things that are made as ethically as possible, check the labels and think about the warehouse and factory;

- to think about where and how clothes are made, from what each detail is made. Where possible, do not buy petroleum-based synthetic materials such as polyester and nylon, which are actually plastics. Every time such fabrics are washed, they lose thousands of microfibers, which end up polluting rivers and oceans;

“Reuse, Reduce, Recycle” – every product we buy affects the environment, from the materials used to create it, to the carbon dioxide released during production and transportation to stores. So before you buy, ask yourself if you really need it.

Optimize your wardrobe: always think do you really need this thing? We often shop impulsively, which is why every year about 10,5 million tons of clothing in the United States goes to landfills and increases the level of global textile waste. You can follow the hashtag #30wears, which means that the fashionable bow has been worn at least 30 times. Give unnecessary and worn things for recycling. In Kyiv it can be done in the Laska and H&M stores.

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Scientific adviser: *Syromlia N.M., PhD, associate professor of Foreign Languages Department, Kyiv National University of Technologies and Design.*