

Green Fashion Trend Strategy via Zero Waste using Biofinished Cellulosic Fabrics

Alaa A. Elsayed

Textile and clothing, Home Economics Department Faculty of Women for Arts, Science and Education, Ain Shams University, Cairo Egypt, Alaa.elsayed@women.asu.edu.eg

Wafaa A. Elsayed

Textile and clothing, Home Economics Department Faculty of Women for Arts, Science and Education, Ain Shams University, Cairo Egypt

Maha M. T. Eladwi

Textile and clothing, Home Economics Department Faculty of Women for Arts, Science and Education, Ain Shams University, Cairo Egypt

Rania N. Shaker

Textile and clothing, Home Economics Department Faculty of Women for Arts, Science and Education, Ain Shams University, Cairo Egypt, mozo2008.rn@gmail.com

Abstract:

Zero waste design technique of garment production was adopted to implement sustainable green fashion trend using biofinished cellulosic fabrics. **Objective:** The aim of this work is to design and apply green fashion designs for women using biofinished cellulosic fabric finished via acid cellulose enzyme and applying zero waste technique i.e., cut and drape technique. **Method:** Five sustainable fashion designs created for women between (20-40) years old were drawn and implemented taking into consideration zero waste design techniques, cut and drape, best fit and appearance, as well as elimination waste of cutting process, functional, aesthetical, elements and principles was evaluated. **Results:** The 5 designs designed, were implemented taking into consideration zero waste technique (cut & drape). The technique itself as well as fitting and appearance were evaluated by questionnaire sheet. Each of the applied designs fulfilled the criteria (Visual Appearance- Garment fit- Sustainability- Manufacturability) of zero waste technique. **Recommendation:** It is recommended to use the technique as it seems to be feasible, ecological, and economically in mass production and may social benefits could be realized.

Keywords:

Green fashion- Cotton fabric- Zero waste- Biopolishing- Fashion design

References:

- 1- Naznin, K.& Barkat, R. (2018). Reusing Crafted Fabric and Zero Waste Fashion Approaches, International Journal of Scientific & Engineering Research, 9(9), 909-911
- 2- Mintel, 2009. Ethical Clothing –UK-2009. Mintel International Group Limited.
- 3- Nursari, F., & Djamal, F.H. (2019). Implementing Zero Waste Fashion in Apparel Design, 6 th Bandung Creative Movement International Conference in Creative Industries, 98-104.
- 4- Gübitz, G. M., Cavaco-Paulo, A. (2001). Biotechnology in the textile industry-perspectives for the new millennium. Journal of Biotechnology, 89(2-3), 89-90.
- 5- Mojsov, K. (2015). Comparison between conventional chemical processes and bioprocesses in cotton fabrics, Tekstilna industrija, 62 (1), 21-25
- 6- Mojsov, K., Janevski, A., Andronikov, K., Jordeva, S., Golomeova, S. & Gaber, S. (2020), Enzymatic Treatments for Cotton, Tekstilna Industrija, 68 (2), 12-17
- 7- Gupta, L. H. (2020). Achieving Sustainability through Zero Waste Fashion-A Review, Current World Environment, 15 (2), 154-162.
- 8- Elahe Saeidi, V. W. (2015) "Precious Cut: A Practice-Based Research Toward Zero-Waste Design by Exploring Creative Pattern Cutting Methods and Draping Techniques," International Textile and Apparel Association (ITAA) Annual Conference Proceedings, Ames.
- 9- Pingki, Moni & Hasnine, Shamsad & Rahman, Md. (2019). An Experiment to Create Zero Wastage Clothing by Stitching and Slashing Technique. International Journal of Scientific & Engineering Research, 8 (1).

Paper History:

Paper received 25th March 2023, Accepted 19th June 2023, Published 1st of July 2023