



USE OF FABRIC OFFCUTS TO MAKE A DRESS

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Abstract: *In this paper, we aim to demonstrate that sustainability will be a must-have in the coming years. We will explore methods of reusing textile waste and reducing it. Sustainability starts with a global shift in perception, where designers need to change how they view clothes and their functionality. Beyond beauty, we are talking about finite resources, massive consumption, and a significant amount of waste. When we reuse, worn materials can be transformed into new products, reducing the need to consume natural resources for their production. By reusing waste from production or extracting pieces from other used items, we can preserve materials that hold sentimental value for us and utilize waste that would otherwise increase production costs through energy consumption. It is essential to change our habits related to how we "consume" clothes and to start thinking about the impact we have on the environment. It is important to realize that we can have a significant impact on the environment through the choices we make about the clothes we buy and how we manage them after we stop using them. It is our responsibility to change the way we consume and to act to protect the environment for future generations. This paper provides practical information on the process of textile waste recovery.*

Key words: *recycling, waste materials, reuse, textile waste.*

1. INTRODUCTION

The textile production process, both in factories with large production lines and in small workshops, results in textile waste [1] of different sizes, shapes, colors and textures, which can be reused in the manufacturing of other products, as useful as those made in the first stage. [2]. This textile waste can be transformed into new products through various recycling or reuse methods, such as transformation into new materials [3]. Some companies active in the field of sustainable fashion have already adopted practices of reusing textile waste, thus helping to reduce the negative impact on the environment [4]. By recycling textile waste, the amount of new materials used in production can be reduced, as well as the amount of waste sent to landfill [5]. Thus, the reuse of textile waste can be an effective solution for reducing the negative impact of the textile industry on the environment [6]. It is important for both producers and consumers to be aware of the importance of textile recycling and to support initiatives that promote a more responsible approach to the use of natural resources [6]. To reuse this waste in the production of another dress, the fabric scraps can be



used to create decorative details on the new dress, such as appliquéd ruffles, or to create interesting design elements such as pockets, buttons or trims. Leftover sewing thread can be reused for sewing the new dress or for other projects. Pieces of cardboard or paper can be used to make new templates or patterns for the new dress. Through these methods of recycling and reusing the waste resulting from the production of a dress, the impact on the environment can be reduced and unique and creative products can be created with a minimum of consumed resources [6].

2. MATERIALS AND METHODS

Creating a dress involves technical skills, creativity and passion for design and fashion. From the initial concept to the final realization, designers and tailors work together to bring a unique and exclusive piece of clothing to life. Every detail is important, from choosing the right material to correctly tailoring and assembling the parts. The creative process can take weeks or months, but the end result rewards the effort. A well-made dress is not just a piece of clothing, it ultimately is an expression of a woman's personality and style, bringing her confidence and joy while wearing it. This dress, presented in this work, has a simple cut, with a medium length, perfect to be worn on summer days. The amount of waste generated by making a dress can vary depending on the design, size and complexity of the dress. However, on average, about 15-20% of the fabric becomes waste during the production process. This means that for every five to eight dresses made, I would be able to collect enough scraps to create a whole new dress from the scrap material. By paying attention to the waste generated during the production process and finding creative ways to reuse these scraps, it is possible not only to reduce the impact on the environment, but also to create unique and sustainable fashion pieces. In addition, incorporating zero-waste designs and techniques into dressmaking can further reduce the amount of waste generated, making the fashion industry more sustainable and greener. It is made of a light and pleasant material that allows the skin to breathe and it feels comfortable throughout the day. The design of the dress is simple yet elegant, with a clean body line that fits perfectly on the female silhouette. It is suitable for various occasions and can be accessorized in different ways to create versatile and modern looks. After selecting materials based on color and texture, as shown in fig.1, we visualize the images in our minds and sketch a model shown in fig.4, to obtain the desired shape. Then, with the help of GeminiCAD, the pattern of the dress is made, as shown in fig.5. Raw materials, pieces of fabric resulting from cutting, pieces recovered from non-conforming products (defects) and coupons of fabric with defects that had to be removed during the cutting operation were used. Fabric scraps were saved for future projects or incorporated into other garments as design elements. The scraps resulting from the cutting process, taking into account the direction of the thread, were assembled together to make other panels, for the landmarks of other products. The defective fabric coupons that had to be removed during cutting were used for smaller projects that required less fabric, such as various decorative accessories, as shown in fig.6. These parts are subjected to a preparation process, as shown in fig.2, to be later assembled into a panel.

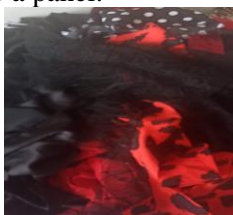


Fig. 1: Selected wastes



Fig. 2: Waste preparation

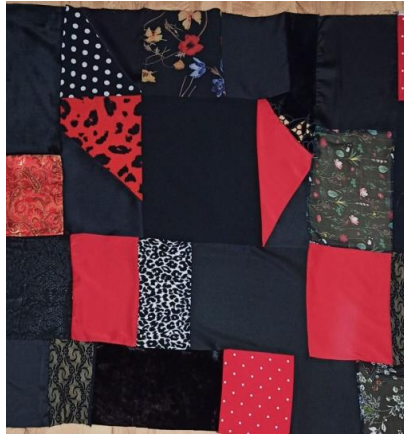


Fig. 3: Prepared panel from textile waste



Fig. 4: Model sketch

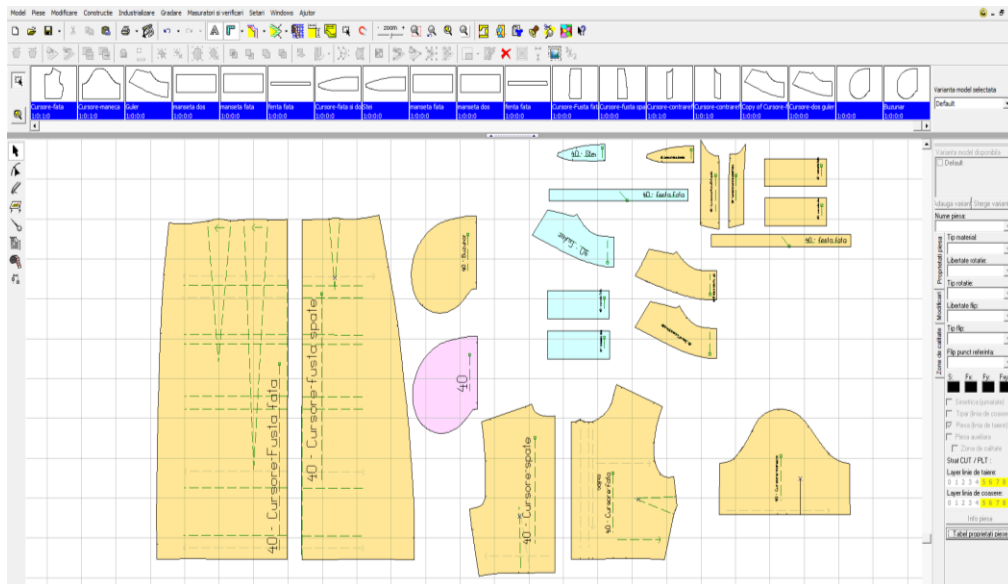


Fig. 5: Dress printing made using Gemini CAD program



Fig. 6: Accessory



Fig. 7: Final product



Needless to say, for small producers and creative workshops, the use of textile waste can bring significant benefits, both economically and in terms of sustainability and social responsibility. In addition, the use of textile waste can bring an element of originality and innovation to the final products, giving them a unique and personalized look. Accessories made from textile scraps can add aesthetic value and creativity, so they can be appreciated by consumers as products with a positive impact on the environment.

5. CONCLUSIONS

In conclusion, this paper highlights the importance of adopting sustainable and innovative practices in the textile industry to reduce resource consumption.

At the same time, we have identified and implemented textile recycling solutions. On one hand we have transforming textile waste into new materials, such as yarn or fabric, or on the other hand using recycled textiles in the production of new textile items. We have also promoted practices to reduce the consumption of textiles (waste), textiles from tailoring or even the reuse of pieces of an preexisting article.

Going through all the steps in the making of the product, I have discovered that you can create a lot of items from clothing. We can easily improve the appearance of already made pieces because the qualities of the textile material give you the possibility of achieving novelty in clothing creation. Both clothing and accessories can contribute to personal comfort, if they are in close harmony with the wearer's character. They can attract pleasant attention, through line and color, ensuring aesthetic comfort, so important in human life.

REFERENCES

- [1] E.C. Loghin, A.G Topală, M. Avădanei, I. Dulgheriu, S.I. Ionesi, I. Ionescu, Reutilizarea deșeurilor textile în produse cu valoare adăugată, Buletinul AGIR nr. 1/2019,
- [2] A.P. Cobuz, M. Greenley, M. Orban, E.S.Lakatos *Recycling textile materials for environmental sustainability*, A XVII-a Conferință internațională multidisciplinară "Profesorul Dorin PAVEL – fondatorul hidroenergeticii românești", la Sebeș, 2017.
- [3] Doble, L., Bohm G., Șuteu, M.D. - "Creative solutions for the use of textile waste" Annals of the University of Oradea, Fascicle of Textiles, Leatherwork, ISSN 1843-813X, Oradea, Volume 24, 2023, No. 2, pp. 31-34.
- [4] Falkenberg, K. *The recycling concept in the context of the revision of the Waste Framework Directive*. Directive 2008/98/EC.
- [5] M. Koszewska *Circular economy - challenges for the textile and clothing industry*, AUTEX Research Journal, DOI: 10.1515/aut-2018-0023.
- [6] M. Blaga, D. Dan, *Contribuții privind valorificarea deșeurilor textile*, Buletinul AGIR nr. 1/2017.