

FUSING THE ART OF CROCHET AND KNITTING FOR CREATING SUSTAINABLE CLOTHING AND ECO-FRIENDLY APPAREL

KAZHUKALO Yana, LOZOVENKO Svitlana

Kyiv National University of Technologies and Design, Kyiv, Ukraine

*Corresponding author: LOZOVENKO Svitlana: e-mail lozovenko.sv@knuvd.edu.ua

Abstract: *This paper explores sustainable fashion and eco-friendly materials, focusing on mixed knitting and crochet techniques to create unique designs. The methodology involves studying patterns and experimenting with different stitch combinations. The research results show that mixing these techniques helps to produce intricate textures not achievable alone. The usage of natural materials such as organic cotton, wool, and linen for products made in mixed techniques allows for highlighting their sustainability benefits. The authors analyse ethical practices to ensure sustainable production.*

Key words: *sustainable fashion, eco-friendly materials, mixed knitting and crochet, Tunisian crochet.*

1. INTRODUCTION

There is no other craft or art form as popular as knitting. Crocheting and knitting have become a favourite pastime of millions of people all over the world, and the use of this unique art form is growing every day. In addition, knitting is becoming an increasingly environmentally friendly alternative to the fast fashion industry, as people are paying more attention to the sustainability and eco-friendliness of clothing [1].

Crocheting and knitting are among the most accessible and convenient techniques for realizing new creative ideas [2]. Combining these two techniques allows for the creation of clothing that is not only stylish and fashionable but also durable. Strengthening the ecological aspect of such clothes is possible due to the use of environmentally friendly materials that decompose in nature after a cycle of use. Therefore, it is interesting to study mixed techniques which use for the production of various purposes goods.

2. RESEARCH METHODS

Visual-analytical methods, methods of analysis and synthesis of scientific information and the principles of a system approach were used for research.

3. RESEARCH RESULTS AND DISCUSSION

Regular crochet and knitting are two different techniques that require separate skills and approaches. However, combining these two techniques opens up endless possibilities for creating beautiful and complex items [3].

One approach to combining crochet and knitting is using the “hook-knitting” technique, where knitting needles are used for creating the base of the item, and a crochet hook is used for details such as flowers, leaves, and other decorations

(figure 1). This combination allows the advantages of each technique to be utilized and creates something new and unique.



Figure 1: The product is made using the combined technique of elements by Bora Aksu [4]

In knitting with needles, the most common patterns used for the base of a project are stockinette and garter stitch, but it's the use of intricate lace and textured patterns, as well as knitting braids, that make a project truly unique and special [5]. Meanwhile, crochet allows for the creation of elements in various geometric shapes and nature-inspired motifs, like flowers and leaves, by using different stitches such as single, double, and treble crochet, as well as picot stitches, and incorporating them into the main fabric [6].

For instance, the “knit-crochet” technique can be used to make a knitted bag with crochet embellishments such as flowers and leaves, where the needles are used to knit the base and the hook is used to add the decorations. Such items are not only unique and special but also environmentally friendly when made with durable materials. By combining the techniques of knitting with needles and crochet, more complex projects, such as scarves and sweaters with ornamental crochet details, can be created. In results are elegant and beautiful products thanks to the intricate details created using a crochet hook (figure 2).

The next technique is called “Tunisian crochet” and is one of the most interesting and non-standard knitting techniques [7].

Combining Tunisian crochet with crochet allows us to create impressive products with fascinating patterns and textures (figure 3).



Figure 2: The product is made using the combined technique of elements by Honeybea [8]

Tunisian crochet differs from regular crochet in the usage of a special long needle with a hook at the end, which allows for more loops to be worked and enables the creation of larger elements and wider fabrics than with regular crochet. To form a row of columns using a Tunisian crochet hook, a chain of loops is first worked using the hook on the end of the tool. The next step is to insert the crochet hook into the loops of the chain and begin working on the columns. To do this, we can insert the hook into the loop on the tool, turn, and pull the loop through the fabric, leaving the columns on the hook. These steps are repeated for each loop on the tool until the desired number of columns is achieved.

With the help of this technique, you can create any kind of clothes and accessories, for example, sweaters, blouses, T-shirts, skirts or a scarf, a bag.

To utilize crochet and knitting techniques, we recommend using eco-friendly materials that are not only safe for the environment but also have a more natural appearance and texture [9]. One of the most eco-friendly and natural yarns is cotton. This yarn is lightweight, soft, and easy to care for. Cotton yarn is available in different thicknesses, allowing for the creation of knitted items with various textures and densities.

Besides cotton yarn, linen, wool, and silk can also be used. Linen yarn has a pleasant texture and excellent water resistance. The wool yarn has a natural shine and keeps heat well, making it an ideal choice for winter and autumn-season items. Silk has a soft texture and a high-quality sheen, giving items a luxurious look.

To most naturally decompose threads, we recommend using cotton and linen threads. These materials decompose easily but still maintain their strength, making

products made from them both beautiful and long-lasting. Eco-friendly materials have advantages over synthetic materials because besides they can be recycled and reused as synthetic, but unlike synthetic ones, natural fibres decompose faster and naturally. When it comes to sustainable and eco-friendly clothing research, it is recommended to use natural fibres, as they decompose without harming the environment [9]. Using such materials in clothing and accessory production helps reduce the impact on the environment, making them a choice that contributes to the preservation of natural resources and ecosystems.



Figure 3: The product can be made using the combined technique of elements [10]

The thickness of the threads depends on the size and surface density of the product being developed. For creating clothing and accessories, yarns with a thickness of 220 meters per 100 grams can be used. The sizes of knitting needles and crochet hooks also depend on the thickness of the threads being used. For thin yarn, knitting needles and crochet hooks with sizes from 2 mm to 4 mm can be used. For thick yarn, knitting needles with sizes from 5 mm to 12 mm and crochet hooks with sizes from 5mm to 9mm can be used.

4. CONCLUSIONS

Combining crochet and knitting techniques to create stylish and eco-friendly clothing has become a very relevant trend in the fashion industry. Using “knit-crochet” and “Tunisian crochet” techniques allows for the creation of complex and original designs suitable for different styles and looks. The approach to fashion should change and focus on the use of ecological materials, which not only allows for the creation of stylish clothing but also preserves natural resources and minimizes the impact on the

environment. Thus, combining crochet and knitting techniques to create eco-friendly clothing has become not only a fashionable trend but also an important step towards preserving the environment.

5. REFERENCES

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