ANNALS OF THE UNIVERSITY OF ORADEA
FASCICLE OF TEXTILES, LEATHERWORK

IMPROVING THE AESTHETIC LOOK OF GARMENTS, USING COMPUTERISED GRAPHICS PROGRAMS

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Abstract: *The present paper explains the stages of clothing style improvement by using computer graphics programs. Ovidiu Stan, a student in the Department of Textiles and Leatherworking and Industrial Management, under our guidance, did research at the Ethnographic Museum of Transylvania in Cluj Napoca, where he selected a folk pattern specific to Transylvania area, reinterpreted it and digitized it in the vector graphics program CorelDRAW. This program allows the shape and size of drawings to be modified, and offers a vast chromatic palette which allows us to style the drawings. The pattern was printed on the T-shirt with an Azon Tex Pro printer, which can replace screen-printing or thermal transfer. The printing system is high-speed and very high quality, and the printed patterns can be unique, highly resistent to wear and washing. After the digitization stage, the next stage was to embroider the pattern on the T-shirt with the Happy embroidery machine. The embroidered pattern was designed by using the BERNINA Embroidery Software Designer Plus software. This embroidery software offers the freedom to design and edit elegant monograms, and complete freedom of creative design. All the projects completed with this software can bear their own distinct, individual mark, as an original work of art.*

Key words: *CAD Systems, CorelDRAW, BERNINA Embroidery Software Designer Plus, Happy embroidery machine*

1. INTRODUCTION

The variety of the traditional clothing pieces and the complexity of the decorative motifs became very fast inspirational sources for fashion designers [1] .

The traditional art represents an inexhaustible inspirational source helpful for those who process textile surfaces, leather, fashion products or accessories [2] .

Romanian ornamentation as a whole is the main source of inspiration and knowledge that can be redeemed successfully in textile creations [3] .

In the traditional descriptions, the embroidery represents the emphasized sewing by specific compositions with an aesthetic role of certain surfaces decoration highlighted by documentation and illustrated by personal fashion products.

Any image or drawing can be converted to embroidery through the programming of machines, so the ones that are part of this fascinating and boosted ambition towards the art ranks field, will always have the creative freedom [4] .

2. THE EXPERIMENTAL PART

Romanian traditional clothing is characterized by unity and continuity. This unity is given by the characteristics of the traditional clothing from all over the country, such as the composition of the costume, the raw material from which the pieces of clothing are made, the tailoring, colour or stitches points, and the continuity represents the long way it has lasted along the years [5].

The chromatics of Romanian traditional clothing is characterized by harmony and freshness, the colors are combined aesthetically. The colors obtained by vegetal dyeing were warm, noncontrasing colours. With the advent of industrial dyes, the colors began to be more intense and more contrasting [5] .

By this piece of clothing we wanted to show the beauty of the traditional Romanian patterns but at the same time we wanted to help the designers who want to implement these patterns by using drawing and design programs, which could ease their work without having to produce samples, being able to see the piece of clothing in the form, size and colour they wanted on a computer [6].

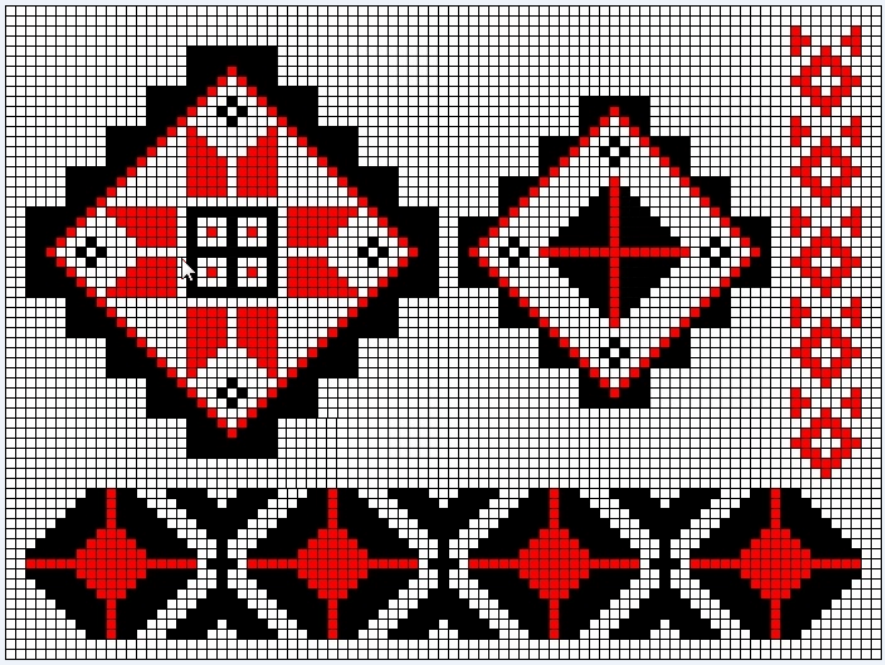

Fig. 1*: Processing the graphic pattern in Paint*

The documentation for this project was conducted in the Ethnographic Museum of Transylvania from Cluj-Napoca where we benefited from the expertise and experience of ethnologists. The chosen Romanian folk motif is specific to ethnographic area of Transylvania. After studying various motifs form the museum's collection we chose one motif specific to Transylvania ethnographic area [7].

The motif consists of four modules and is well balanced chromatically, the colors are white, black and red with chromatic accent.

The motif was stylized and reinterpreted in a modern way, but were preserved the characteristics of the form (diamonds, rectangles, triangles), composition (the way in which the modules are combined together) and chromatic in order to keep the degree of authenticity of the motif. The graphic model processing was done in Paint program (Figure 1).

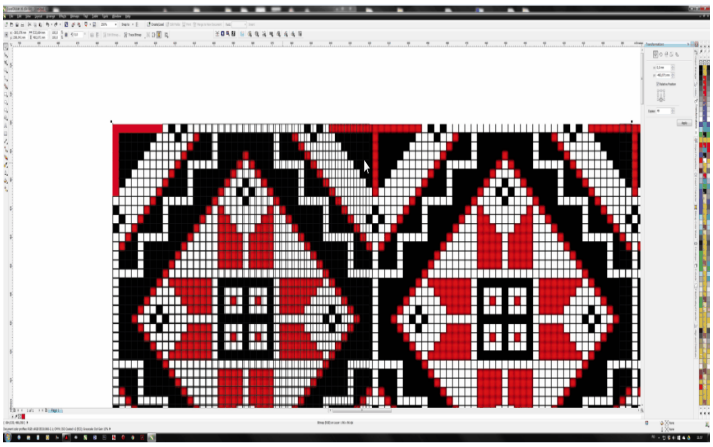

***Fig. 2**: Processing the pattern in CorelDraw-phase 1*

First time the motif was styled in a variety of sizes and color combinations, and after one variant was chosen we passed onto motif digitization using CorelDRAW graphics program.

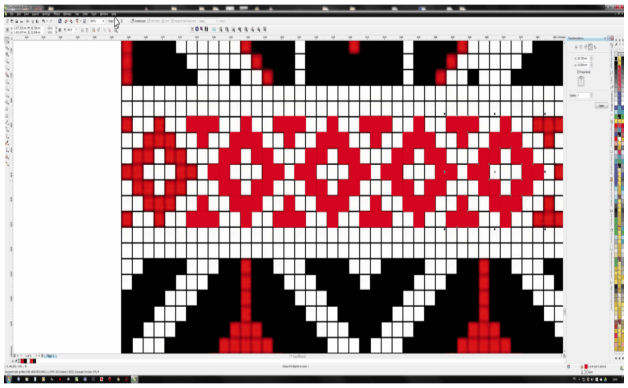

***Fig. 3**: Processing the pattern in CorelDraw-phase 2*

In (Figure 1, Figure 2, Figure 3, Figure 4) are presented the stages of processing the chosen model with the software CorelDraw, a program that allows the shape and dimension of drawings to be changed, also offering a vast colour palette allowing us to stylize the drawings.

***Fig. 4**: Processing the pattern in CorelDraw-phase 3*

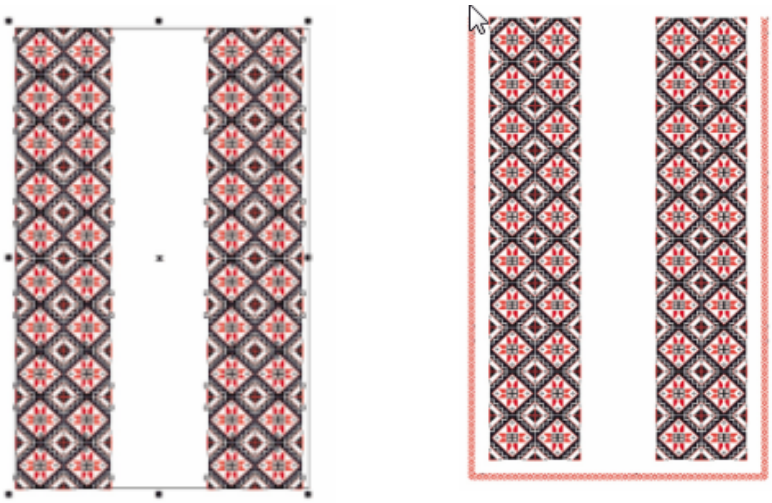

***Fig.5**: Processing the pattern in CorelDraw-phase 4*

Azon Tex Pro printer can be used as a replacement for screen printing or heat transfer. Printed patterns can be unique or in series with a high resistance to wear and washing. The printing system is a high speed and a very good quality / price one, consisting of 8 cartridges, 4 containing the 4 base colours and 4 containing white. The white layer is applied digitally directly to the desired location of the shirt immediately followed by colour print. The print is done at a resolution of 1440 dpi, with an amazing speed of 50 T-shirts per hour in case of white shirts and 15T-shirts per hour for dark T-shirts, the software used is Azon RIP [8].

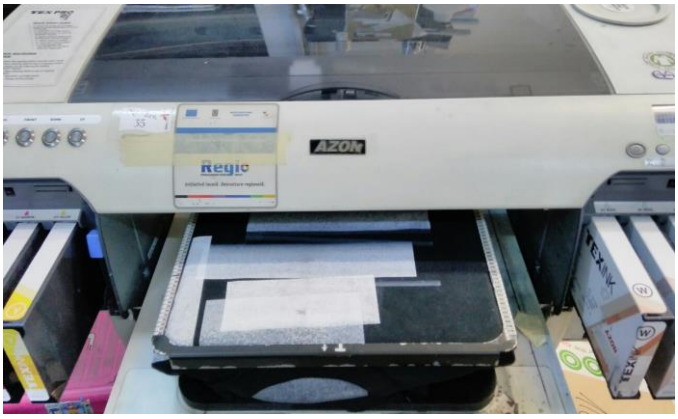

***Fig. 6**: Azon Tex Pro Printer [8]*

The embroideries that decorate the folk costume items contribute to keeping the unicity of the traditional folk costume. The yarns that were used for decorating the folk costume pieces are wool, raw silk, twisted cotton yarns and warped coloured cotton yarns or later, vegetal silk. It was essential the way in which the ornament was arranged on the white fabric, thus providing a balance between various ornamental fields, a good aesthetic taste [5].

***Fig. 7**: Happy Embroidery machine [9] [10]*

After the digitization stage of the model we passed to embroidering the pattern on a T-shirt using the Happy embroidery machine. The embroidering of the T-shirt was done at S.C. CONFIDEX S.R.L Oradea [9] [10].

The embroided pattern was done using BERNINA Embroidery Software Designer Plus Software. This embroidery software gives you the freedom to design and edit elegant monograms, as well as complete freedom of creative design. All projects completed in this program may bear the individual and distinct signature as an original artwork.

In (Figure 8) is shown the T-shirt worn by the mannequin with the model chosen digitized and embroidered.

***Fig. 8**: T-shirt – final product*

3. CONCLUSIONS

- Versatility from a creative point of view of Romanian traditional folk motifs.
- Keeping the motifs and the degree of authenticity of traditional patterns.
- Possibility of motifs to be applied on various textile supports using modern technologies.

- Modern technologies allow a mix between old and new, combining the creative aspects with the technological ones, which can be stylized and reinterpreted with various graphics programs.

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