

Aesthetics of Ebru art in fashion design

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Introduction

The subject of creativity and innovation is receiving a lot of attention nowadays. Societies are making great strides towards progress and throughout their path they need creativity and innovation. Creativity leads to production characterized by originality and value, and the designer seeks to achieve aesthetic creativity compatible with the society in which he is associated and is linked to the technical and intellectual development of the era in which he lives, while the designer of textile printing meets the needs of the consumer and industry requirements, so printing designs appear in women's, men's and children's garments and other uses, hence the designs. The majority of textile printing designers are concerned with designs directed to serving the manual and automatic industry, but some of them may be interested in making designs of individual aesthetic value, such as one-piece works. It has a unique and distinct identity, and it is one of the most important techniques for printing a single copy, which cannot be repeated at the level of quantitative production. These unique pieces are distinguished by their high price due to the time and effort involved and the lack of masterful artists for this type of art. This research aims to study the artistic effects of surface touches of Ebru art to create artistic buildings as a design entrance to create a collection of modern fashion that suits women's fabrics between the ages of 25 - 35 and suitable for the evening period, using the formation on the mannequin and also take advantage of computer possibilities, and Ali The designer chooses the best methods and alternatives leading to the realization of his idea, whether manual or digital, through his knowledge of the technical effects of surface touches of printing techniques in the field of textile printing design and familiarity with his use of computers, it has become the technology of Computer is the language of the times and its capabilities have become one of the modern perceptions in all fields, especially the industries in our contemporary modern society .

Ebru art is one of the Islamic arts whose history is subjected to neglect and forgetfulness not only in the Arab world, but also in the place in which it flourished, which is Turkey, despite the widespread popularity of this art that the decorated paper in Europe was known as Turkish paper and therefore, we find the importance of this research in Shedding light on this art, its most important features, and its distinctive artistic effects and how to benefit from it in the field of textile printing and fashion design, and the field of textile printing is one of the fields that are based on art and science together. Modern data and techniques. The more development in the field of textile printing, the more it will be linked to the extent of the use of modern technologies in both the field of design and implementation. But sometimes digital art lacks the manual and instinctive sense in styles and manual arts, and therefore, the importance of research lies in

emphasizing the aesthetics of Ebru art and identifying the artistic features and aesthetic values of this art and the possibility of benefiting from them in the field of fashion design and the integration of Ebru art and digital art technology to produce modern fashion. It combines the distinctive artistic sense of the needle style that cannot be imitated, and the advantages of modern technology of deletion, addition, repetition, and change of color groups with new and varied visions of a single design. The research also examined the possibility of implementing a set of designs with to form on the mannequin using the fabrics that were printed using the Ebru technique, this method which needs high skill as it is the method that helps to innovate and visualize the fashion designer when using different types of fabrics, especially if they are printed with a technology that needs to show all its features and distinctive effects such as technology The Needles. The research also sheds light on some programs and applications that can be downloaded to a tab or mobile (modern devices) that have recently emerged trying to draw in the style of Ebru, and to identify its advantages and disadvantages, and are the equivalent to the traditional manual style of Ebru art or not.

Research problem:

The research focuses on descriptive, aesthetic, experimental study of the aesthetics of Ebru art and its unique and unique effects, which enriches the technical construction of printed fashion. The research problem is summarized in the following questions:

- How can we benefit from the artistic effects of surface touches of the Ebru technique in creating artistic constructions as a design entrance to create modern fashion printed designs of one piece in the style of formation on the mannequin?
- Is it possible to benefit from the designs printed with Ebru in fashion design by the style of formation on the mannequin?
- Is it possible to take advantage of printed designs with Ebru and computer-based design programs to create of designs that can be produced quantitatively?
- Is it possible to take advantage of the flowing designs from the designs printed with Ebru and by using design programs to create a group of modern outfits?

Research aims:

- 1- Show the aesthetic values of Ebru art in the field of textile printing and benefit from it in designing fashion using a manicure style.
- 2- Providing new design visions by using computer design programs in the treatment of units, motifs and textures of Ebru technique. Obtaining unique designs using the art of Ebru that can be produced quantitatively, with the aim of adapting technology and modern life and achieving the aesthetic and utilitarian end.
- 3- The use of computer design programs to create a group of women's costumes to show the aesthetics of the designs printed with Ebru.

Research hypotheses:

- 1- The possibility of benefiting from the art of Ebru as a source of inspiration and creation of designs executed on its fabrics that are authentic and ancient and in line with international trends of fashion.

2- There is a relationship between the design method on the mannequin in creating various designs of silk cloth printed with the technique of Ebru and enriching the aesthetic aspects without prejudice to achieving the functional objectives of the final product.

3- There are statistically significant differences between the designs implemented in the extent to which the implemented design practically matches the original Ebro pattern according to the opinions of the arbitrators.

4- There are statistically significant differences between the designs implemented in the effectiveness of the design method on the mannequin in achieving harmony and harmony between the design and the fabrics printed with Ebru material according to the opinions of the arbitrators.

5- There are statistically significant differences between the designs implemented in the extent of the effectiveness of computer programs in creating various designs and can be produced quantitatively using the art of Ebru according to the opinions of the arbitrators.

6- There are statistically significant differences between the designs implemented in the total degree of design aspects according to the opinions of the arbitrators

Research Methodology:

The historical approach, and the descriptive analytical approach represented in the theoretical framework, and the experimental approach in the applied aspect of research.

Research limits:

Objective limits:

- The merging of Ebru art and fashion design with manicure style.
- The merging of the art of Ebru and fashion design, using computer design programs.
- Using the printing method using the Ebru technique, studying, analyzing and extracting its aesthetics and the possibility of using it.

Time limits:

The researcher has made suggested designs for evening wear for women using the printed models using the Ebru technique suitable for the age group 35-25 in style design and suit fashion lines for 2020.

C- Third: Research tools:

- 1- Print a set of fabrics executed using the needle technology.
- 2- Adobe Photoshop CC and Adobe Illustrator CC were used for deletion, addition, and duplication.
- 3- Specialist evaluation form for innovative design models.

Results:

The study reached the printing of 7 pieces of cloth using the Ebru technique, then invented some clothing designs in the style of formation on the mannequin amounting to 21 design along with the lines of fashion, and implementing 28 innovative designs using computer programs. Then, a number of design ideas for women's fashion were applied to the executed designs with a total of 28 designs.

The pictures shown below (from 1 to 16) show some of the results of the research:



Figure no. 1



Figure no. 2



Figure no. 3



Figure no. 4



Figure 3 Çift

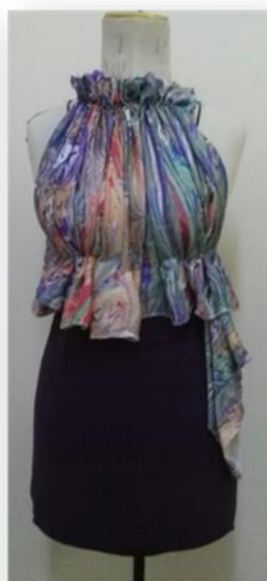


Figure 2 Combed



Figure 2 Çift المزدوج



Figure 1 Çift

Figures (1-4) show Examples of fabrics which printed by using the Ebru technique

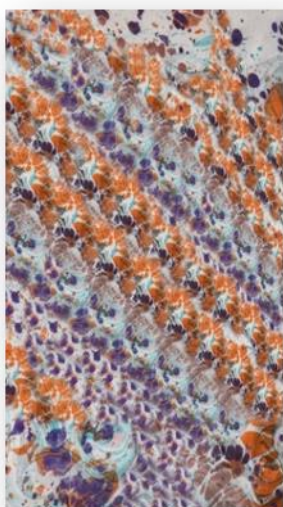


Figure no. 5



Figure no. 6



Figure no. 7



Figure no. 8

Figures (5-8) show Examples of forming on the mannequin, with Ebro designs



Figure no. 9 Figure no. 10 Figure no. 11 Figure no. 12
 Figures (9-12) show Examples of innovative designs using computer programs

Validity and reliability of the questionnaire:

Validity of the questionnaire: It represents the ability to measure what was set for it. The validity of the instrument was calculated in two ways:

1- Verify the arbitrators

To verify the authenticity of the content, the questionnaire was presented in its initial form to a group of specialized professors, whose number reached (7), and they were asked to judge the questionnaire in terms of: -

- A- The accuracy and wording of the questionnaire statements.
- B- Appropriateness of phrases for the design evaluation axes.
- C- The extent to which the questionnaire covers the various evaluation items.

The frequency of the agreement was calculated with the arbitrators on each of the phrases and the lowest agreement percentage was 85.7%, and the highest agreement rate was 100%

validity

The two researchers calculated global validity through a matrix of correlation coefficients between the dimensions of the Aesthetics of Ebro Art in Fashion Design questionnaire and the total score of the same questionnaire, and the results resulted in a positive correlation relationship of statistical significance at the level of significance (0.01-0.01) between the total score of the questionnaire. The aesthetics of the art of Ebru in fashion design and its axes (the extent to which the practically executed design is identical to the original Ebru pattern - the effectiveness of the technique of forming on the mannequin in achieving harmony and compatibility between the design and the fabrics printed with the material of the Ebru - the

effectiveness of computer programs in creating various and quantitative designs by taking advantage of the art of Ebro).

Table (A) the values of the correlation coefficients between the dimensions of the Aesthetics Questionnaire of Ebro in Fashion Design and the overall score of the questionnaire

The effectiveness of computer programs in creating various and quantitative designs by making use of the art of Ebru	The effectiveness of the technique of forming on mannequins in achieving harmony and harmony between the design and the fabrics printed with embroidered material	The extent to which the implemented design practically matches the original Ebro pattern	Variables
***0.704	***0.650	**0.213	The total degree of design

**** Indication (0.01) *** Indication (0.001)**

The stability of the questionnaire:

Reliability of the questionnaire was calculated using the Alpha-Cronbach coefficient to calculate the reliability coefficient to determine the value of internal consistency. The value of the alpha coefficient was 0.81, which is a high value that confirms the consistency of the Questionnaire Aesthetics of Ebru in Fashion Design.

Discussion

Research hypotheses:

The first hypothesis: There are statistically significant differences between the designs implemented in the extent to which the implemented design practically matches the original Ebro pattern according to the opinions of the arbitrators.

To study the differences between the designs implemented in the extent to which the design implemented in practice corresponds to the original Ebru style according to the opinions of the arbitrators, one sample T test was used to determine the significance of the differences between the average scores for the designs in the dimension being studied.

Table (1) and Figure (17) show the existence of statistically significant differences between the averages of the scores of the arbitrators' opinions in the extent to which the practically implemented design matches the original IBRO pattern at a significance level (0.001-0.01), where the third design ranked the best designs where the value of t (57.412) with an arithmetic average of 14.234 ± 1.220 , followed by the sixth design, then the seventh design, then the fourth design, then the first design, followed by the second design, and the fifth design came in the last order with an arithmetic average of 8.471 ± 1.823 .

Table (1) The significance of the differences between the mean scores of the implemented designs in the extent to which the implemented design is practically identical to the original Ebro pattern according to the opinions of the arbitrators

Arrangement	Significance level	"T" value	Standard deviation	Arithmetic average SMA	The source of contrast
5	0.01	15.658	1.674	10.561	The first design
6	0.01	15.237	1.659	9.272	The second design
1	0.001	57.412	1.220	14.234	The third design
4	0.01	17.167	1.167	11.112	Fourth design
7	0.01	14.761	1.823	8.471	Fifth design
2	0.001	38.814	1.082	13.633	Sixth design
3	0.001	31.133	1.553	12.100	Seventh design

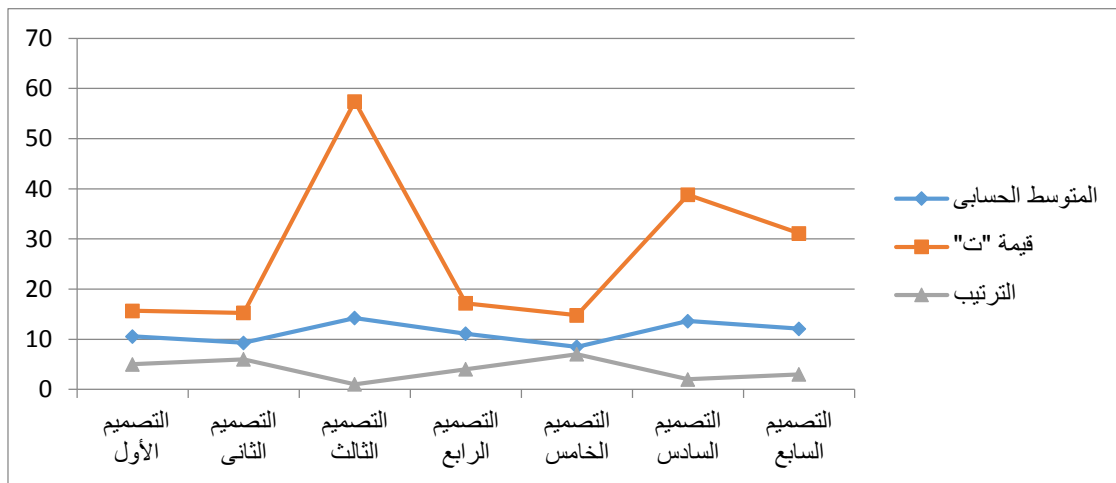


Figure (17) a graph showing the arithmetic averages and the value of (v) and the arrangement of the designs executed in terms of the extent to which the implemented design practically matches the original Ebro pattern according to the opinions of the arbitrators

The second hypothesis: There are statistically significant differences between the designs implemented in the effectiveness of the technique of forming on the mannequin in achieving harmony and harmony between the design and the fabrics printed with the fabric of Ebru according to the opinions of the arbitrators.

To verify the hypothesis statistically, the one sample T test was used to find out the significance of the differences between the mean scores of the designs in the dimension under study.

Table (2) and Figure (18) illustrate the existence of statistically significant differences between the mean scores of the arbitrators' opinions regarding the designs presented to them at a significant level of (0.001), the third design ranked first with a value of (55.494) with an arithmetic average of 18.452 ± 2.122 , followed by the design The fifth, the seventh design in the third rank, followed by the sixth design, then the fourth design, then the first design, while the second design came in the seventh and final rank with an average score of 12.865 ± 2.857 .

Table (2) The significance of the differences between the mean degrees of the designs implemented in the effectiveness of the technique of forming on the mannequin in achieving harmony and compatibility between the design and the fabrics printed with the fabric of Ebru according to the opinions of the arbitrators.

Arrangement	Significance level	"T" value	Standard deviation	Arithmetic average SMA	The source of contrast
6	0.001	37.597	2.960	13.911	The first design
7	0.001	31.980	2.857	12.865	The second design
1	0.001	55.494	2.122	18.452	The third design
5	0.001	39.541	1.294	14.636	Fourth design
2	0.001	54.323	1.473	17.001	Fifth design
4	0.001	40.346	2.089	15.936	Sixth design
3	0.001	47.841	1.780	16.230	Seventh design

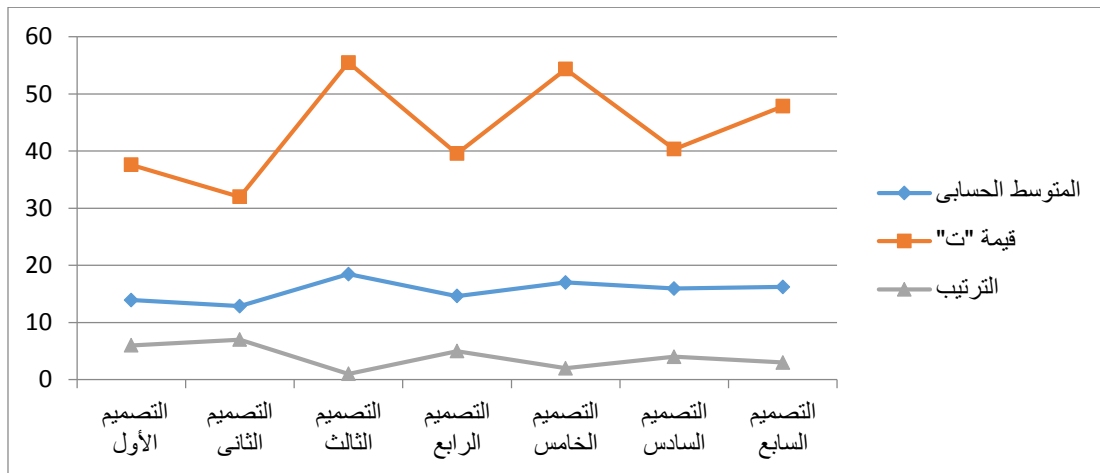


Figure (18) A chart showing the arithmetic averages and the value (T) of the designs implemented in terms of the mean degrees of the designs implemented in the effectiveness of the formation method on the mannequin in achieving harmony and harmony between the design and the fabrics printed with the fabric of Ebru according to the opinions of the arbitrators

The third hypothesis: There are statistically significant differences between the designs implemented in the effectiveness of computer programs in creating various and quantitative designs by making use of Ebru art according to the opinions of the arbitrators.

To study the differences between the designs implemented in the extent of the effectiveness of computer programs in creating various designs and a quantity by taking advantage of the art of Ebru according to the opinions of the arbitrators, one sample T test was used to find out the significance of the differences between the average scores for the designs in the dimension being studied.

Table (3) and Figure (19) illustrate the existence of statistically significant differences between the mean scores of the arbitrators' opinions in the models presented to them at the level of significance (0.001). The fourth design ranked first with a value of (96.896), with an arithmetic average of 11.818 ± 0.404 , followed by The fifth design, then the twelfth design in the third

rank, and the first and seventh designs occupied the fourth rank, while the sixth design came in the last rank with an average score of $8.363 \pm 2,500$.

Table (3) The significance of the differences between the average degrees of the designs implemented in the effectiveness of computer programs in creating various and quantitative designs by making use of the art of Ebru according to the opinions of the arbitrators

Arrangement	Significance level	"T" value	Standard deviation	Arithmetic average SMA	The source of contrast
1	0.001	71.900	0.920	14.916	The first design
6	0.001	39.730	1.521	9.391	The second design
5	0.001	40.681	1.139	10.162	The third design
4	0.001	56.801	1.420	11.803	Fourth design
7	0.001	36.483	1.521	8.936	Fifth design
2	0.001	65.002	1.720	13.310	Sixth design
3	0.001	64.302	1.914	12.303	Seventh design

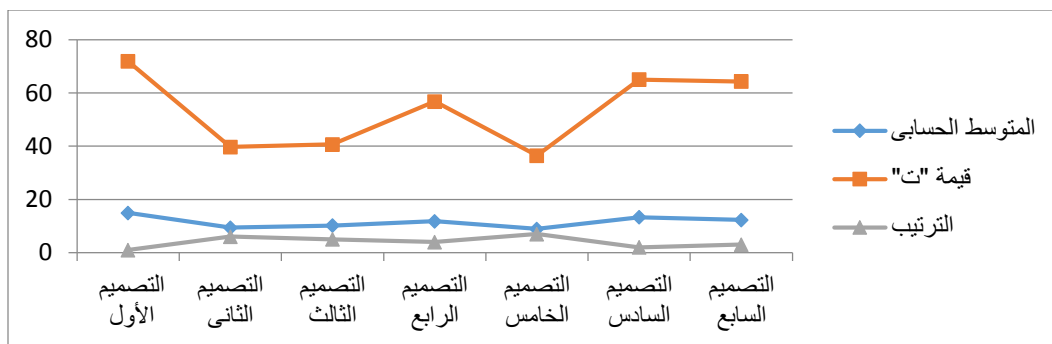


Figure (19) a graph showing the arithmetic averages and the value of (T) of the designs implemented in the extent of the effectiveness of computer programs in inventing various designs and a quantity by taking advantage of the art of Ebru according to the opinions of the arbitrators

The fourth hypothesis: There are statistically significant differences between the designs implemented in the overall degree of design aspects according to the opinions of the arbitrators. One sample T test was used to determine the significance of the differences between the mean scores of the research sample towards the total score of the design aspects.

Table (4) and Figure (20) illustrate the existence of statistically significant differences between the mean scores of the arbitrators' opinions in the models presented to them at the level of (0.001) significance. The sixth design ranked first with a value of (62.015), with an arithmetic average of 42.879 ± 4.891 , followed by The third design, followed by the seventh design, then the first design, followed by the fourth design and then the fifth design, and the second design came in the last place with an average score of 31.528 ± 6.037 .

Table (4) The significance of the differences between the mean degrees of the designs implemented towards the total degree of design aspects according to the opinions of the arbitrators

Arrangement	Significance level	"T" value	Standard deviation	Arithmetic average SMA	The source of contrast
4	0.001	51.233	5.554	39.388	The first design
7	0.001	31.298	6.037	31.528	The second design
2	0.001	55.008	4.481	42.848	The third design
5	0.001	46.144	3.881	37.551	Fourth design
6	0.001	39.806	4.817	34.408	Fifth design
1	0.001	62.015	4.891	42.879	Sixth design
3	0.001	54.587	5.247	40.633	Seventh design

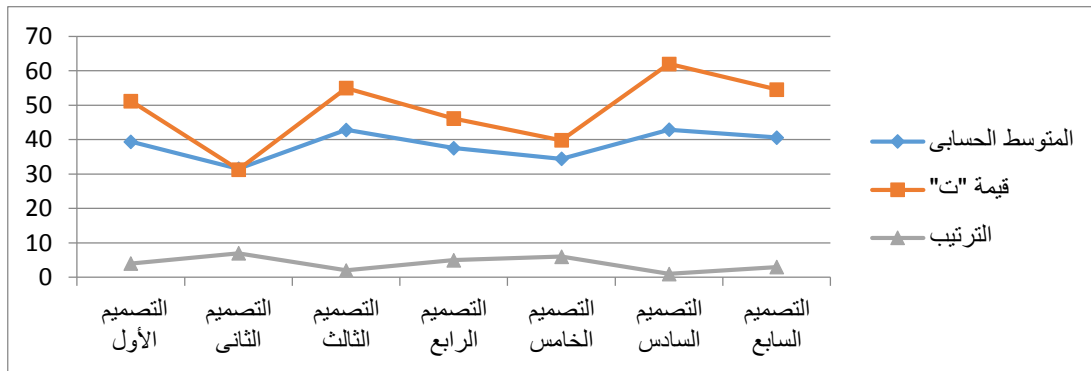


Figure (20) a graph showing the arithmetic averages and the value (T) of the designs executed in terms of the total degree of the design aspects according to the opinions of the arbitrators

Recommendations

- 1- The research recommends a permanent review of the technical and technological development in the field of textile printing and fashion design with a conscious thought, which contributes to the ease of dealing and experimenting and benefiting from the data of these developments in the creation of printed artworks characterized by seriousness and innovation
- 2- Conducting more studies and research dealing with the art of Ebru to introduce its aesthetics and its multiple capabilities.
- 3- Using the technique of Ebru art as a source to inspire innovative designs, not only in the field of fashion design, but also in the various fields of applied arts.

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