

# Pointillism Printing and its Impact on the artwork of Edgar Degas' Ballet Dancers

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**Abstract** Pointillism is considered part of Impressionism, and it is the specialty of some artists who focused on producing their works in a pointillist style in which the elements within the painting are determined by a set of points that are constructive according to the color theory and light in the Impressionists movement, artists such as Georges Seurat, Paul Signac, and Camille Pissarro and other artists who went through that experience with their works. In this study, the researcher worked on transferring pointillism to an impressionist artist, but he was not among those who went through the pointillism experience at that time, namely Edgar Degas. The study adopted the descriptive-experimental approach to describe the style and works of Degas and the application of pointillism to some of his works related to ballerinas, using the technique of pointillism printing by using cotton swabs. Everything related to the artist, his style, and his view of his subject matter related to ballerinas are explained, and how the effect of pastel colors can serve the sense of color when applied in the form of pointillism. As a measuring tool for the research, the researcher used the structural analysis of the pointillism layers divided according to colors, i.e., each layer built on the surface is dedicated to a specific color or shades of color, through which the researcher measures the experiments that succeeded in implementing what is required of them to answer the research question. The study experience was applied in the College of Basic Education for students majoring in art education who spent between two to three years in the major, and the applied number for this study was 22 students. The study was implemented in a semester, i.e., for a period of four months, during which the students meet for implementation for four hours every week. The results differ in this study in terms of quality, context, style, and method of implementation, with individual differences between students and their talent. The works were implemented in different ways that were analyzed in the research, and it was found that the student's thoughts and understanding of the idea of the study differed, as some of them added things that resulted in raising the structural quality of pointillism, and that raised the creative aspect of each work, and this is what gives this study important in the field of art and art education.

**Keywords:** Pointillism, Printing, Impressionism, Edgar Degas, Ballet Dancers, cotton swabs, Art education.

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## I. Edgar Degas: Introduction

Degas was and remains a person of contradictions, for a large number of people the name Degas evokes in their minds images of ballet dances, horse races, and women washing, and those who know Degas's art more than others may add that he is an impressionist artist, a man of thought, and the artist who walked slowly towards complete blindness, and artistic experts may describe him as an excellent copyist of the art of the ancient masters of drawing, the great cartographer and the artist of exceptional intelligence. After the painter Seurat, Degas is the least-known figure among the Impressionist and Post-Impressionist painters. He lived next to the hedonist Renoir, the arrogant Gauguin, and the pathetic Van Gogh. He was a person who loved solitude, tended to ridicule people, hiding his feelings behind witty flowery speech, which is good only for smart people who do not trust their peers, just like Flaubert, the author of the Fantastic Realism "Madame Bovary" and like Leonardo Da Vinci the Renaissance artist whose paintings were reproduced by Degas. Degas was a pessimistic person. His art lacks certain qualities that people call the paintings of Renoir, Monet Pissarro, Sisley, Gauguin, and Van Gogh. Degas was not a man who attracted people's love, and his art was remarkably cold, but his response to visual realities was with a degree of sensitivity and sharpness, his mastery of design was clear and definite, and his sense of art was so deep that Degas's artworks are considered among the greatest artistic achievements during the nineteenth century, which is considered the century of great paintings. [1]

In his paintings, Degas was interested in quick and accurate drawing and in feeling movement and analyzing it with a single stroke. Degas searched and sought tirelessly for every pose and every subject over and over again. He rejected the symbolism that means escape and aestheticism in the new art, which he found to be typical, and he relied on his judgment only, he refused all honoring parties so that he would not be forced to appease. He was an intelligent and sarcastic artist observing daily life, and his gaze was more penetrating when he looked at women as they were beautified. [2]

In this study, the researcher works to link Degas as an artist who specialized in drawing ballet dancers as a subject matter with the technique that Georges Seurat worked on, which is Pointillism, but Seurat painted his pointillism, as he used brushes, and this research, the researcher focuses on the application through pointillism as printing with cotton swabs.

### **1. Purpose of the research:**

1.1 Adding a different field of application to impressionism art that is not limited to paintings only but also based on pointillism printing.

1.2 Exploring new applications that depend on the student's understanding of Edgar Degas' artworks to create new treatments for printmaking

1.3 Understanding the harmony between the colors used in Degas's paintings and how to apply them to form a spontaneity for us in creating and coming up with color values that are consistent with the print and do not conflict with the original work in terms of color identity.

### **2. Research question:**

How can the color spontaneity of Edgar Degas' artworks be achieved through the Pointillism printing technique?

### **3. Research limitations:**

3.1 The research is limited to using some of the artworks of the artist Edgar Degas, whose theme is only about ballet dancers.

3.2 pointillism printing using cotton swabs.

3.3 Implementation by 22 students of the College of Basic Education (girls) during one semester.

3.4 The materials used in this study are gouache paints on Canson cardboard in several colors in A2 size.

3.5 The implementation of the study was for one semester, which extends to four months, provided that the students meet to implement the experiment for four hours every week, and this is the duration of the course that is related to printing as a subject.

### **4. Research aims:**

4.1 Studying the Impressionist art of Edgar Degas as history and identifying its artistic value and aesthetic dimensions.

4.2 Using multi-color with the pointillism printing technique enriches color paths and its different directions by synthesizing Degas's paintings and the works produced in this study, enriching printmaking in the field of education.

4.3 Developing the expressive ability of the students by combining the two methods of printing and color theory together raises the level of their understanding of printmaking in art education.

### **5. Research method:**

Analytical descriptive approach as practice-based research applied by undergraduate art education students (experimental process) to verify its objectives and hypotheses as follows:

### **6. Theoretical phase: Students' understanding and comprehending**

6.1 Review and discuss with the students the artworks of the artist Edgar Degas, his style, and its importance as part of the impressionist movement as an introduction to modern art.

6.2 Study the concept of color and its artistic significance for the impressionists.

6.3 Describing the elements of composition in Degas's artworks on ballet dancers.

### **7. Practical phase: drawing - Printing:**

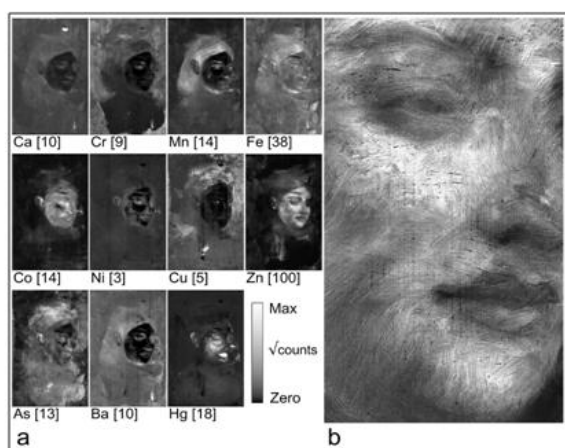
7.1 Each student chooses one painting by the artist Edgar Degas, which the researcher presents to them after the students have understood the important elements within the painting, which form the kinetic paths of color and line.

7.2 The student begins to draw the outlines while preserving the identity of the original painting.

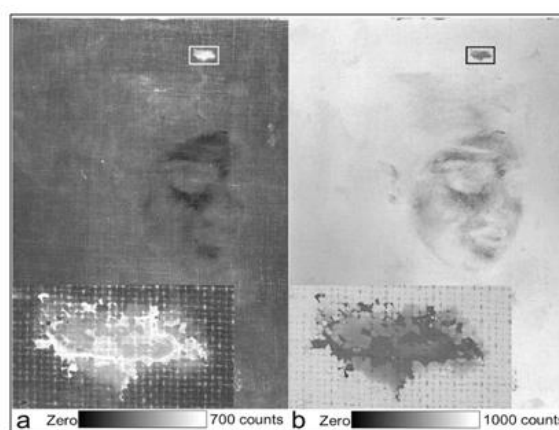
7.3 printing using cotton swabs by building several layers according to the number of colors in the original painting.

## II. Previous Studies and Research Discussion

There is a previous study conducted by a group of researchers in the field of X-ray analysis of paintings (X-ray fluorescence (XRF), which is a study linking scientists and the art community in terms of using new technologies in the field of chemistry, and amongst the advantages of this study is that it reveals the layers of color that Degas used in his painting "Portrait of a Woman." In Figure 01, we see that the rays isolated layers of colors in the painting to several Layers according to the composition of the colors chemically. The study shows that Degas may have been painting and preparing a specific work for a portrait, and then he decides to change the work and draw another portrait. It may be the same woman, but in a different direction within the painting, and this explains the "underpainting" significantly. The study also showed that there are several layers of Pointillism through color, as in Figure 02, where those in charge of this study explained that Pointillism represents an important layer among the layers of the painting, and this explains the secrecy of Degas's work when producing any painting.[3](Thurrowgood et al., 2016, P.4-5)



**Figure 01** High-definition 31.6 megapixel X-ray fluorescence elemental maps of Portrait of a Woman



**Figure 02** X-ray scatter maps

For the researcher, this study represents proof that the Pointillism technique is one of the secrets of the work of many Impressionist artists, some of whom show the Pointillism layers clearly including Seurat, Paul Signac, and Cross, and some of them hide the Pointillism layers lightly, such as Pissarro, and some of them use pointillism according to the space in the painting, such as Monet and others as shown by radiological studies such as Degas using Pointillism in one of the layers of the painting, this information shows us the importance of the Pointillism technique and its impact on highlighting the layers of the painting and giving the color high quality.

The Museum of Modern Art, New York published by Jodi Hauptman a study of some old articles written on Degas in Paris, which shows the artistic state of Degas when he had great inclinations to produce various works in printmaking and as Degas had great inclinations for the monotype and in the letter written by Marcellin Desboutin in July 1876, in which he showed Degas's obsession with producing monotype prints, and as mentioned about Degas' case in printing:

*"is no longer a friend, a man, an artist! He's a zinc or copper plate blackened with printer's ink, and plate and man are lattened together by his printing press whose mechanism has swallowed him completely! The man's crazes are out of this world. He now is in the metallurgic phase of reproducing his drawings with a roller and is running all over Paris, in the heat wave—trying to find the legion of specialists who will realize his obsession. He is a real poem! He talks only of metallurgists, lead casters, lithographers, planishers!"*

Degas reproduced his paintings in printmaking, and this proves that Degas is the right artist for this study, as he used monotype printing, lithography, and etching during his art career, but the researcher added in this study a partial production of Degas's works in pointillism printing, and this represents a new experience that combines printing as well the pointillism technique used by Degas in his paintings.[4]

A few years ago, in October 2018, the researcher published a study in Arabic with the title: "Direct Plastic Formulations of the Impressionist Artists Works by using Synthesis of Monotype and Block printing techniques" in AMESEA Journal, as the researcher focused on how to analyze the artworks of impressionist artists and transfer them to relief printing in the form of block printing, where the researcher focused on building many layers of color through direct coloring, provided that the last layer is the block print layer, where the lines give the final features for the shape of the painting, and in contrast to that in the current study, the researcher

performs the process of analysis and building layers based only on pointillism printing, as all lines of work depend on pointillist construction only to move away from the sharpness of the general features of the painting. [5]

### **III. Color theory in Pointillism at the Impressionists and Neo-Impressionism**

The color theory is very deep for the Impressionists because it significantly relies on light, but Degas is considered a different impressionist artist, as most of his artworks are produced in the studio and in theatres. Many dialogues took place between Degas and Claude Monet about that Degas is not considered an impressionist artist like the rest of the members of the Impressionist movement as he is part of the group, but his artistic production differs as preparation from the artistic production of other Impressionist artists such as Monet and Renoir and others because of his reliance on production in the studio, opera theaters, and others. [6]

Degas' reliance on pastel colors distinguishes him from the rest of the artists of the group even though his pointillism is different for everyone. In his painting titled: *Dancers in Blue*, 1895, Degas uses green to form the background of his work and contrasting red for the focal point, but he also uses these contrasting colors to create shadow in most of the paintings. If we compare the color theory of Seurat, Degas, and Signac, we will see that the colors are close because of the impressionism of the sense and color, and the impression of the artists in the artworks of some, but we see that Signac has a different line and theory because of his rejection of the term "pointillism" and that what he belongs to is Neo-Impressionism, in 1899 Signac said, "The Neo-Impressionist does not divide, but rather divides." [7]

**He puts forward a four-part argument showing how division achieves the goals of "luminosity" and "harmony" by means of:**

1. The optical mixture of solely pure pigments (all the tints of the prism and all their tones);
2. The separation of the different elements (local color, color of the lighting, their interactions, etc.).
3. The equilibration of these elements and their proportions (according to the laws of contrast, of gradation, and of irradiation).
4. The choice of a brushstroke commensurate with the dimensions of the painting.

Signac's argument is dense with the technical vocabulary of color theory in the late nineteenth century. The Neo-Impressionists prided themselves on bringing the scientific rigor of the largely intuitive Impressionist project up to date. By understanding the contemporary meanings of Signac's terms, we can trace how scientific color theory influenced Neo-Impressionist practice as shown in Signac's painting titled *La Baie (Saint-Tropez)*, 1907. [7]

in his paintings in the first period of his artistic life, Degas used many colors that were predominantly brown and black degrees Degas painted his figures in his studio and created his composition from his imagination and partly using his memory. He used vibrating brushstrokes very little. The subject matter of his paintings was regular and repetitive and had nothing to distinguish them. He was also essentially an observer. In the 1880s his colors became more intense, and Degas also used complementary colors. His pastel strokes approximate the Impressionist manner of painting in many ballerinas and performers. The faces of the ballerinas are almost half-hidden. From 1886 onwards Degas does not seem to distinguish between preliminary studies and finished works. From the 1890s he became more interested in his paintings are more in color than line and clarity of elements in the painting, as he excluded more and more details. A painting needs a certain mysteriousness, vagueness, and fantasy, he said, as Degas himself says about his method as an artist: A painting is an original combination of lines and colors that complete each other. You have to arrange the different elements to achieve something enchanting. Having painted several history paintings for the first time (1860-1865), Degas devoted himself to presenting fleeting moments from everyday life.

The rendering of the light effect was important for Degas, mostly artificial light. Already in his early paintings, Degas cut off his figures Degas also used remarkable perspectives. [8]

### **IV. The Practical phase: the process of Pointillism Printing**

In the beginning, each student chooses a work by Edgar Degas, and the choice is among the artworks that include the subject of ballet dancers only. The researcher focused on that topic because of the spaces that help build layers of color through Pointillism, and there are artworks by Degas that depend on one element, i.e., One ballerina is the basis of the work, and the rest of the elements are always non-essential and unclear. As for the rest of the paintings, they include several elements, i.e., more than one ballerina in the painting. There is freedom in choosing the appropriate painting for each student, but diversifying by choosing paintings is important as avoiding much as possible from repetition in choosing the same work by more than one student.

Initially, it is necessary to clarify some of the issues that will follow as a model for implementing the artworks in this study. Students were prevented from using a paintbrush and sufficing themselves only with cotton swabs to standardize production and unify the effect of color on the surface to be executed, as in Figure

03, as the effect of that point on the surface means that the viewer has a full sense of the effect of printing, as the researcher focuses on the direct spontaneity of color, as there is no room for return and modify it.



*Figure 03 The process of printing each layer using cotton swabs*

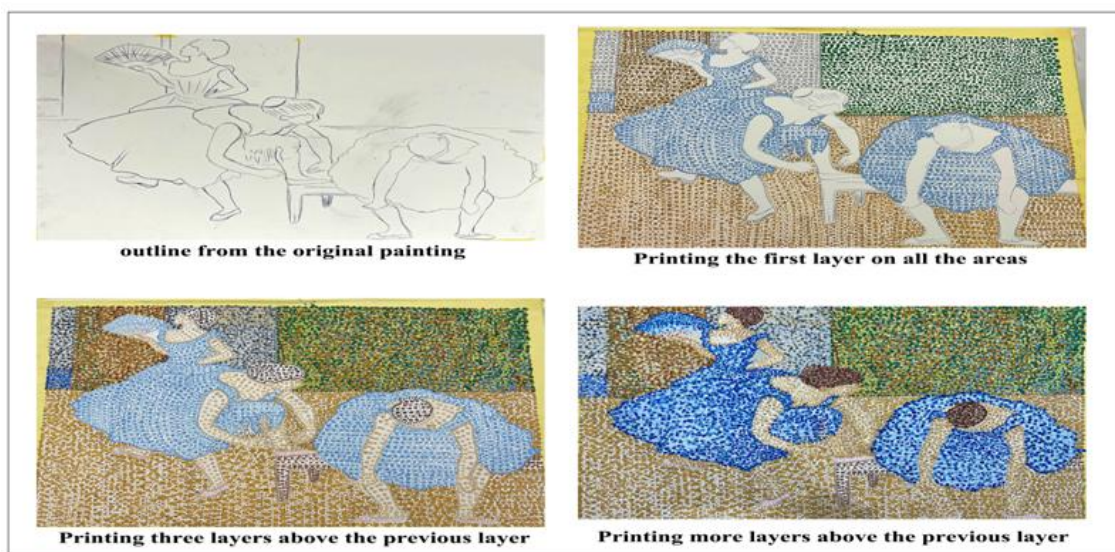


*Figure 04 Degas Painting that been chosen as a model in this study*

### V. Implementation of one of the artworks

At the beginning of the implementation phase, each student is asked to choose one of Edgar Degas's paintings for implementation. The student chose the painting in Figure 04 as the artist's original painting to be implemented. Before implementing the outer lines of the work on the surface, the researcher asks each student to analyze the original work and count the colors to make it easier for him to prepare the colors required to carry out the work and then arrange the colors to be implemented in the form of layers, each layer taking one color for each space within the work, provided that five layers are implemented for each space to form the features of the work in the end.

In Figure 05, the first image on the left side shows us the stage of making the outer lines of the work, and the image on the top right side is points print for the first color in all the space, and this is considered the first layer and we must focus on making points in each space with the work of a small area between the points, as each layer is printed between the spaces and not on the points of the previous layer. The image below on the left shows the printing of four layers in all spaces as it becomes clear that the features of the figures began to become more clear. The image below on the right shows us the implementation of more than five layers, as after those layers, the student can implement some pointing in some places that need more clarification or color to reach conformity with the original artwork.



**Figure 05** the process showing the points of layers applied in each stage

The final result shows that these layers in all spaces contributed to highlighting the artistic values in the work, as in Figure 06, where the result of the work comes in the appropriate manner required in this study,



which is to highlight the features of the original artworks of the artist Edgar Degas using the pointillist printing technique, and it becomes clear to the viewer that the formation of these characters in the painting by pointillist printing using cotton swabs are difficult, but when the implementation is done in a layered way, the process is easier, and the analysis of the workspaces is clearer, as the executor of the painting does not redraw the painting but implements it in a new style by means of Pointillism printing, which gives a new impression of color and is more related to the theory of color construction of impressionist artists.



*Figure 06 The result of applying more than eight layers of points as printing using cotton swabs*

## **VI. The discussion of the variety of Study Results**

In fact, there is no tool to measure all the results uniformly. In the result that was previously discussed, we see that the measurement tool is the number of layers of Pointillism building on the surface. In each layer, a different color or degree of color is implemented from the previous layers, and this applies to most of the results that were reached through the implementation of the students. The researcher sees that the effect of pointillism is very small and the construction is different in one of the student's results, as the student preferred that the implementation is through the rapid construction of pointillism due to the small size of pointillism in comparison to the rest of the other works. The researcher also discovered that students' non-compliance in building layers opens the way for creative diversity in the results of this study, where the researcher believes that most of the students who did not understand the process clearly in terms of building layers when implementing pointillism, their talent and experience affected the stages of building the work, the individual differences between students and the different vision of each student added aspects that raised the artistic value of the work in terms of technique and also in terms of choosing colors.

In order for the researcher to prove that this study yielded results above the expected in Figure 08, there are four results in the study for four students, some of whom followed the methodology of implementation in this study, which was presented to all students and based on the fact that pointillism is by building layers, and each layer has a color or a different degree of color, as it was represented to us in the aforementioned figure that there are students whose talent positively affected the methodology of their work, where the pointillism was built according to the color space and not the full layer in the work, that affected some positively and some negatively, the positive is the work on the far left and work on the far right. As for the two works in the link, there was a failure in terms of color distribution, the first on the left of the half, the spaces of color appeared flat, as the color swept the space and the pointillism effect disappeared, the other work on the right of the half, we see that the spaces of the pointillism are not sufficient to form the elements within the work, so we see that the background of the paper appears clear in some spaces, as well as the elements in the background fading.

The researcher believes that the strength of the research lies in the diversity of the results, with the presence of an implementation methodology as a clear measuring tool in terms of building layers on the surface in stages that were explained to the students before starting the implementation of the work. The researcher proves that the talent and craftsmanship of the students can raise the level of the study results. The aspect of

craftsmanship in execution is almost a little, as it is not normal for a student who spent three years studying practical art education subjects to come up with professional works in the fourth year of his/her college studies, but With friction with gifted students who have a vision and talent different from those around them, he raises his level and also raises the sense of competition among students and produces the best results for the implementation of the required work.



**Figure 07** four of the students' results of pointillism printing using one degas painting as a model in different approaches

## VII. Conclusion

The researcher has conducted studies in the past related to the study of works of impressionist artists, and in each study the researcher believes that these artists can greatly raise the level of students in contemporary times, as their era has the courage to engage in artistic experiments and not follow the artistic traditions of that time in addition to the competition between the Impressionist artists, which resulted in a variety of styles and tastes in art, it even built a new taste in the history of art in terms of color and light.

The researcher reached the desired results in terms of students' comprehension of the work model of Edgar Degas in terms of building elements in his paintings by studying the diversity of movements of ballerinas, as well as the various color applications of the artist and how to apply pointillism by using cotton swabs and how to use its effect in building Pointillism layers is one of the subjects of Degas's paintings. Also, a discussion took place between the researcher and the students at the end of the implementation of the works, and the strongest aspects of the students' works were presented and compared to the original works of the artist and this enriched lot by talking about these aspects among the students, as some of them decided to re-execute the work to be the result of the work for himon the personal level and not for the experiment in this study, all of these things prove the success of the study and the answer to the research question.

## VIII. Recommendations

During the researcher's work with the students in this study, the researcher believes that it would be very important and interesting if another study were done that deals with the comparison between two Pointillism methods, one of which is implemented using the same method used in this study, which depends on the technique of cotton swabs in the implementation of Pointillism p, and the other depends on Pointillism with a very small paintbrush, as it is possible to enrich these spaces by working on the side of color and giving an intensity of color at each point. Also, the study focuses on the implementation and analysis of only one artist from the same era as the Impressionist artists so that the works do not lose the quality of the artistic style and the artistic value of that era in the history of art.

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