

Helwan University Faculty Of Fine Arts Graphic Department

# Graphical Processing of Using X-Rays Technique Creating Printmaking

**Master Degree research** 

**Presented By** 

#### **Heba Salah Mohamed Wagdy**

Researcher in Graphic Department.
Faculty of Fine Arts - Helwan University

**Under Supervision Of** 

Prof. Dr.

**Mohamed Roshde Elmoner** 

Prof. Dr. of Graphic Department Faculty of Fine Arts Helwan University Prof. Dr.

Ashraf Zaki Morsy

Prof. Dr. of Graphic Department Faculty of Fine Arts Helwan University Prof. Dr.

**Seif Eldin Ebrahem** 

Chairman Of The National Center For Radiation Research And Technology Atomic Energy Authority

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#### " Summary "

# Graphical processing of using x-rays technique creating Printmaking

The aim of the research is to find out how the graphic processing of the latest x-ray technology has been achieved and the methods of employing them to obtain the production of artistic and printing innovation, in the context of the philosophy of the relationship between scientific and artistic concepts, by highlighting the role of the core X-ray technology in the field of art, the most important work of the pioneers of X-ray art, and their different graphic methods that contributed to the expression of content what the study achieved from the ideas and formulations artistically and technically ways that have a deep creative meaning and vision.

In order to achieve the objective of the research, the researcher used the historical approach to study the origin of x-ray art and the analytical descriptive approach of many of art works by the major artists in this art, and their contemporary creations to this date. In addition to the experimental approach of the researcher's experience to produce artistic and graphic printing using X-ray technology. The research includes four chapters:

#### **Chapter One Is Entitled:**

#### A historical hint on X-rays, their importance and uses

The researcher dealt with this chapter through two parts, the first part: a scientific study included a historical overview of the discovery of X-rays, and identify the identity of these rays and its origin, and also examined the characteristics of X-rays, and its importance and how to prevent them, in addition to its multiple use in different areas, It is role in the field of Fine Art.

The second part, based on the role of X-ray verification of the originality of works, entitled "Disclosure of the origin of art paintings using X-rays," which studied the models of the most important and famous works of art that were discovered using X-ray technology, such as artist Picasso, Van Gogh, Rembrandt, Edgar Deja, as this part of the first chapter included the presentation of models of the largest theft of paintings in history.

#### **Chapter Two Is Entitled:**

# The artistic creation of X-rays and their applications among the traditional and modern printing techniques

The second chapter deals with the appearance of the concept of artistic creation using x-ray as an advanced technique, and the origin of the art of x-ray art. The researcher also deals with the entrance to the graphic arts and a review of the traditional and modern methods of printing techniques, highlighting the techniques of digital art, classifying the types of digital arts for computer graphics programs, for 2D and 3D design, through which the researcher focuses on the most important devices and techniques for modern medical imaging of X-ray and its applications.

The chapter also includes how to represent the digital images on the computer screen, and the color schemes of the computer graphics programs, until the printing process and the definition of digital printing, and the factors of prosperity and features, and the most important differences between traditional and digital printing methods, and identify the most important printers and its technique.

Review this chapter how to employ X - rays of the most important techniques and printing methods proposed for the production of artistic and graphic printing.

#### Chapter three Is Entitled:

## An analytical study of the most important works of artists using X-ray technique

In this chapter, the researcher reviews an analytical study of the most important art works of the world's most prominent contemporary X-ray users and pioneers in America, Europe and Asia, such as: Dian L Tasker, Nick Veasey, Hugh Turvey, Maria-Theodora Dimaki, and Unique graphic works by artist Laura Ferguson and Steve Miller.

As for the most famous artists of the Arab countries, such as the artist Ahmed Mater in Saudi Arabia, and in Egypt, such as artist Mohamed Hamza, and Mohammed Abla. Between the individual narrative of the work of artists, art collections for the use of flowers and shells as expressions of this art, and other collections of works using three-dimensional X-ray technology.

The researcher completed the end of the chapter with a variety of artistic collections that have an imprint on this art with its innovative ideas and methods of technique.

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#### Chapter Four Is Entitled:

## Application of x - ray technique to the work of graphic art through the researcher's experience

The fourth section is divided into two parts. The first part deals with the study of the technical composition of the technical experiment Which includes first the structural foundations of graphic design such as point, line, shape, color, texture & aesthetic values of graphic design from the perspective of technical experience such as unity, balance and rhythm, using samples of the researcher's art works.

The second part includes practical application of technique through the researcher's experience, dealing with the idea of artistic work to use the technique, steps and stages of the actual technical experiment carried out by the researcher, and the most important methods proposed for the application of technology for the production of art and graphic printing. Then the researcher deals with his works and art paintings by description and analysis in accordance with the topic of his masters.