

Key words:

Cartonnage

Anthropoid coffin

Pectrol

Apron

Boot

Gilded mask

Gilding

Exchanged effects

Reshaping

Extracting papyrus of cartonnage

The summery:

The thesis consists of seven chapters as follows:

Chapter One:

It includes the **CARTONNAGE** and its concept and terms, religious importance and its usage features and development through the historical ages since the pre-dynastic ages and the old state and the central state, which began the emergence of human coffins and then the modern state and the emergence of the mummy shingles then the emergence of Tippih Cartonnages in the third transitional era then in the late era until the Ptolemaic eras which made famous in the art of Catonnage down to the Greek and Roman Ages and finally to the end of the art of cartonnage, said the evolution of forms and decorations in every era of its different eras.

Chapter TWO:

This chapter presents a detailed installation of cartonnage layers from support which is linen or Papyrus and then to know the))((components of white material and adhesive and to identify the types of white materials used such as (Calicate or Gypsum and Gesso and then move to the coloring layer and find out what types of pigments used and chemical composition and find out what types of media materials used both in))((or the support and its usage in then move to the gilding layer and know its physical and chemical properties and learn different ways of gilding and gilding techniques and to address the gilding tools so access to the varnish layer and in the end the access to Cartonnage's work technologies either complete or in parts.

Chapter Three:

This chapter includes manifestations of damages of each layer separately and the factors causing these damages. and layers and its impact on the damage of other layers. And also the impact of the damage on the rest of the other layers we talked about the manifestations of damage on Cartonnage of warp and break as a result of severe weakness and exposed to full break. And Cartonnage's damage due to faulty repairs. And see manifestations of the Cartonnage ligament's damage and the effect of mummy in Cartonnage with it.

Chapter Four:

This chapter contains the scientific basis used in the treatment and maintenance of Cartonnage. And we begin with **first** preliminary treatments ,**secondly** cleaning operations of mechanical and chemical cleaning and knowledge of cleaning methods using laser and using enzymes ,**thirdly** the process of strengthening and learn how to restructuring, **fourthly** touched on how to treat each layer separately and their restoration of different damages like the support's treatment of glued linen or papyrus layers and how to treat the))((of filling cracks and gaps and treat cracks and separations and treatment of coloring layers of cracks and the presence of peels and re-coloring of the lost spaces then treat the gilding layers, **fifthly** treatment of various biological injuries and **finally** the knowledge of display, storage and maintenance.

Chapter Five:

This chapter includes scientific methods for recording, examination and analysis of Cartonnage, where light microscope was used to study the cross sections of colored and gilded Cartonnage. And examine samples using scanning electronic microscope and identify the installation of number of samples of preparation layer, colors and gilding layer by X-ray diffraction and also make an infrared analysis and study the microbiological damage on Cartonnage and the mummy beneath it.

Chapter Six:

This chapter includes studying an evaluation for some solidifying materials used in the treatment and maintenance of Cartonnage and these materials are:

1- Baraleod B72 2- Klucel G 3- Wacker OH 4- BaoH2 5- Funori

Began preparing colored and gilded Cartonnage samples then apply solidifying materials on it and subjecting the samples to thermal aging and obsolescence with ultraviolet and study of the values of color change before and after the obsolescence then prepare a model similar to the face of the antique and expose the model to a damage similar to the damage in the antique and develop a plan for treatment and apply it.

Chapter Seven:

This chapter includes the practical side of the study where Cartonnage was recorded in parts with drawing and a photographic recording of the manifestations of the existing damage and presentation of these phenomena. And to develop proposals for their causes and develop a treatment plan for this effect of conducting mechanical and chemical cleaning and installation operations and solidifying the weak parts then make restructuring and straightening of the parts, which happened a distortion to it. Then complete the preparation layer to the missing parts and do the colored frills and in the end make the Insulation process.



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Applied Study on the Exchanged Deteriorating Effects Between Gilded Cartonnage Layers and Methods of Treatment and Conservation

A Thesis

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