

Application Methods of a Black Resin Layer on the Funerary Equipment from the New Kingdom to the Ptolemaic era of Egypt



Abdelmoniem M. Abdelmoniem 1* , Naglaa Mahmoud 1 , Wael S. Mohamed 2

1)Conservation Department, Faculty of Archaeology, Fayoum University, Fayoum, Egypt.
2)Polymer department, National Research Centre, Dokki - Giza – Egypt

Corresponding Author: TEL:+2001009805550 E-mail address: ama63@fayoum.edu.eg

The present study focuses on the different application methods of black resin layers to cover the funerary furniture in ancient Egypt from the New Kingdom to the Ptolemaic era according to the wealth and social class of the deceased person. The ancient Egyptians had the language of color. For instance, the use of dark tones of color was a sign of sorrow. That is, black represented the death and hereafter for the ancient Egyptians. It was used for religious purposes.

Black resin was one of the most important archeological materials that revealed many facts, historical information, and secrets about the materials used by the Pharaohs, suggesting the extent of their progress. Identifying the application methods of a black resin layer on funerary equipment is very important to understand the ancient civilization, materials, and production methods, reflecting the state of art and life in the age of the Pharaohs.

Key words: Black Resin, Funerary Equipment, Wood, Soft Brushes, New Kingdom

There are many methods of applying the black resin layer on funerary equipment, including the direct application on wood and painting on the black resin (figure 1 a,b& c), as well as the direct application on wood (figure 1. d). Sometimes, the artist tended to making a ground layer, applying the black resin, and painting on (figure 2.a).





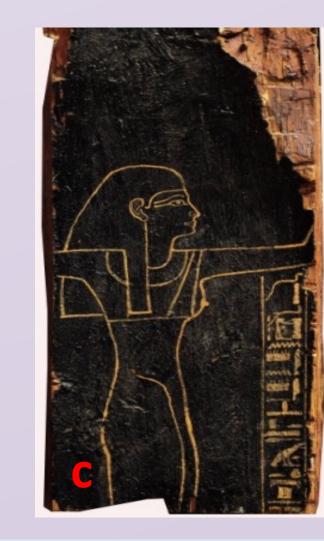




Figure 1; a) A lid of an Ushabti coffin from the collection of King Amenhotep II; b &c) The lid of the coffin of Amenhotep dating back to 1427-1400 B.C.; d) A foot-shaped box for serving food from the collection of King Amenhotep III

Moreover, other methods were adopted, such as making a ground layer, applying the black resin, then using golden papers to implement the required decorations (figure 2.b); making a ground layer on wood, applying the black resin, and defining the eye area only (figure 2.c); making a ground layer, sculpting the required parts, then applying the black resin on the artefact (figure 3. a);. Additionally, a layer of black resin was applied on some artefacts after coloring (figure 3. b).







Figure 2.a) An Ushabti coffin from the collection of King Amenhotep II; b) A coffin from the collection of King Thutmose IV; c) A falcon statue from the collection of Horemheb

In some artefacts, a broad ground layer was made topped by pigment and the black resin was poured on them (figure 4.a). In other cases, a broad ground layer was made, followed by a painting layer from outside and inside, and a black resin layer was applied (figure 4.b).

References



Figure 3.a) Yuya's coffin; b) A coffin from the Third Intermediate Period; c) A statue of King Tutankhamun



(Figure 4; a) A coffin covered with black resin from the Third Intermediate Period. b) A Polychrome Wooden Coffin From 26th Dynasty-Egypt

The tools used in applying black resin: Soft bristle brushes were used in the application of the black resin. The ancient Egyptians used brushing or casting for the application of the black resin that was applied while being hot. If it was very hot, it would not show any signs of the tool used.

The ancient Egyptian prepared black resin by slow heating to make sure that all components of the black resin dissolve. It shall be considered that black resin dries fast. To apply it on funeral furniture, the ancient Egyptian used black resin while being heated or hot.



Figure 5; a) Fibre brush held together with bitumen at one end, and bound with cord.

Methods of applying black resin

- 1- Casting: The black resin was put in the container on which the black resin was be applied. The excess was emptied from the other direction within seconds due to the fast and sudden cooling of the black resin (figure 6.a).
- <u>2- The brush</u>: A soft-bristled brush was used to apply the black resin in order not to leave any trace on the model. In the collection of King Tutankhamun, the brush strokes appear to indicate the bristles or that the black resin was about to dry during application (figure 6.b-d).

In the event that there is a stroke on the surface of the black resin, it is caused by the continuous stirring of the black resin on fire. These strokes are air bubbles when applying the black resin.





Figure 6.) Methods of applying black resin, a) by Casting; b-d) by brush

Abdelmoniem, A.M., (2019). An experimental study for treatment and conservation of archaeological wood covered with a layer of black resin, applied on one of selected models, Master thesis, Fayoum University, Egypt.