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A PRECISE CONSERVATION PROCESS BRINGS A HIDDEN UNIQUE MEDIEVAL ICON TO LIFE FROM AL-SYRIAN MONASTERY AT WADI AL-NATRUN, EGYPT

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ملخص البحث:

اثناء ترميم أيقونة الصلبوت التى يعود تاريخها إلى القرن التاسع عشر الميلادى لعبت الصدفة دوراً هاما فى اكتشاف أيقونة اخرى أسفلها ، وتمثل الايقونة السفلية السيدة العذراء تحمل السيد المسيح ويرجع تاريخها الى العصور الوسطى بدير السريان فى وداى النطرون . وهذا البحث يناقش الأستراتيجية التى أستخدمت فى عملية انزع الأيقونتين من بعضهما البعض ، بالاضافة الى ذكر الأسباب التى أستندت اليها الدراسة لترجيح عملية النزع وفقا لمواثيق الترميم الدولية والمتبعة فى هذا الشأن. وبعد اتمام عملية النزع بنجاح تم تثبيت أيقونة الصلبوت على حامل خشبى جديد تم أختياره طبقا لبعض الابحاث التى تم الرجوع اليها، وفى النهاية تمت خطوات صيانة الايقونتين بالطرق المتعددة (عملية التقوية – عملية المتنظيف – عملية ملء أرضية التصوير – إعادة التلوين – عملية العزاء للحياة مرة أخرى بعد اندثار قارب على قرنين من الزمان، عملية العرد أيقونة بل هى بمثابة فترة فنية ذهبية فى تاريخ الايقونات القبطية عبر التاريخ وهى فترة العصور الوسطى، حيث تم تأريخها لتلك الفترة الزمنية من خلال سمأتها الفنية التى تم مقارنتها بالعديد من الإيقونات التسب الى العصور الوسطى.

ABSTRACT:

During the Conservation of a 19th-century crucifixion icon, a chance led to the revelation of another icon beneath it. The underlying icon depicted the Virgin Mary holding the Christ child and dates back to the medieval centuries at the Monastery of Al-Syrian in Wadi Al-Natrun, Egypt. This research paper discus into the strategy employed in the delicate process of separating the two icons, as well as the rationale behind opting for separation in accordance with international Conservation protocols and best practices. Following the successful detachment, the crucifixion icon was mounted on a new wooden support, selected based on thorough research. Finally, both icons underwent a comprehensive conservation process involving (Consolidation, cleaning, filling, retouching, and Varnishing). As a result, the Virgin Mary icon was brought back to life after nearly two centuries of obscurity. It is more than just an icon; it represents a golden era in the History of Coptic iconography, specifically the medieval period. It was dated to that time period through its artistic style, which was compared to numerous icons attributed to the medieval.

KEYWORDS: Medieval, Coptic Icons, Al-Syrian Monastery, Conservation, Detachment, Retouching.

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INTRODUCTION

Coptic art refers to the art of Egypt produced by Egyptian Christians in late Roman, early Byzantine, early Arab and late Middle Ages. Icon is the word that describes a Coptic religious picture and is primarily associated with the paintings of the Orthodox Churches. An icon is composed of five layers, support, usually a wooden panel, ground, binder, paint and varnish layer. Although thousands of icons are found in churches and monasteries of Egypt, very limited information was available about them for a long time. Recently, studying Coptic icons has been an element of interest from different aspects including description, characterization and identification, dating, interpretation, conservation and restoration. Like other historic structures, Coptic icons are deteriorating with aging especially when left without conservation and restoration. However, before trying to proceed with conservation and/or restoration of an icon, it is important to determine the possible sources and causes of deterioration. (Ahmed Refaat, 2019)

The icon wasn't just surfaces to be painted on, but rather several layers executed in a certain style, with specific materials. The wooden support is the main panel for the icon and it is made of good quality wood, and is equipped with the correct scientific method, where it is treated and reinforced with strips or wooden beams that are fixed from the back with nails or strong



glue. Wooden Icons have been executed also on two continuous panels (Diptychs) or three continuous panels (Triptychs) (**Fig.1**). (Helmi, 2023).

Figure 1. Triptych with the Hodegetria Aristerokratousa and scenes from her life Early 19th century, Saint Catherin Monastery, Egypt

The artist stretched a layer of canvas, whether it was of linen, hemp or cotton. It was fixed with glue on the wooden support, to protect the icon layer from separation, otherwise these layers might fall, and completely damage the icon. Then the artist places the preparation layer to prevent the wooden support from absorbing the chromatic medium, which must be present in order to perform its function of binding the pigment granules. Then a layer of pigment mixed in medium was added and finally the varnish. (Helmi, 2023)

A signification feature of the technique of iconography is the selection of basic materials which enter into it. In their totality, they represent the fullest participation of the visible world in the creation of an icon. As we have seen, this includes representatives, so to speak, of the vegetable, mineral and animal worlds. The most fundamental of these materials (water, chalk, pigments, egg...) are taken in their natural form, merely purified and prepared, and by the work of his hands man brings them to serve God. In this sense the words of the Prophet David, spoken by him at the blessing of the materials for the building of the temple, "All things are thine, and of

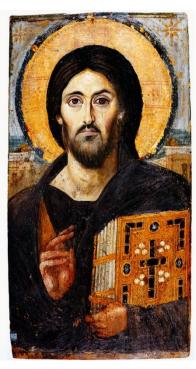
thine own have we given thee" are still more applicable to the icon where matter serves to express the image of God. But these words acquire their highest significance in the Liturgy at the offering of the Holy Gifts to be transformed into the very Body and Blood of Christ: "Thine own of Thine own we offer to Thee, in all and for all." Thus, matter too, offered in the icon as a gift to God by man, in its turn emphasizes the liturgic meaning of the icon. (Ouspensky,1989).

THE EARLY ICONS

Of the early period of icon production, we know very little. We will never know the whole story because of the widespread destruction of icons during the war waged over image-worship. Until fairly recently, only four examples from the period before the outbreak of iconoclasm were known. These came from Sinai, and are now in Kiev. Only within the past twenty-five years, when the Sinai collection itself has been investigated, have we been able to establish a small group of first-rate icons as works of Constantinopolitan ateliers: a bust of Christ, a bust of Peter, and a Virgin Enthroned Between Soldier Saints (**Fig.2**). A somewhat larger group of early Sinai icons was, we believe, produced in Palestine, the province in which St. Catherine's Monastery is located. There are icons of a later date in the same collection that have Syriac and Arabic inscriptions and a style of their own.



A. St. Peter Icon, Second half of the 6th Century-First half of the 7th Century



B. Bust of Christ Pantocrator, First half of the 6th Century



C. The Virgin between St. Theodore and St. George,6th Century

Figure 2. A, B, C Encaustic Icons at the Saint Catherine Monastery

We still have very little evidence about icons painted in such important centers as Alexandria, which must have been Greek in character and dis- tinct from the Coptic style. A few early Coptic icons are known, but their systematic study has not yet been attempted. Surely Antioch must have been an influential center of icon-painting, but this is still a complete gap in our knowledge. Moreover, icons were certainly produced in pre-iconoclastic Georgia, yet here too only very few have survived. There is every reason to believe that in the early Byzantine period there was no unified style, but rather, each important metropolis and surrounding province had its own tradition, colored by the influence of indigenous and often anti-classical trends. A few very important early encaustic icons have come to light even in Rome; they are quite distinct from the Eastern images, and less painterly in style.

A group of Sinai icons which we would like to assign to the eighth or ninth century is evidence that icon-painting did not come to a complete halt upon the outbreak of iconoclasm. Production certainly continued beyond the boundaries of the Byzantine Empire, for example, in Palestine, then under Muslim domination. It was not until the second golden age, when under the Macedonian dynasty the Empire expanded again, that Constantinople became the undisputed artistic center of the eastern Mediterranean and developed a distinct style, with a consequent impact felt in all neighboring countries, east, west, north, and south.

During the Communion period (1081-1185), the high standards of Constantinopolitan art continued, although the classical element receded to some degree in favor of a style that emphasized a more dematerialized rendering of the human body. This tendency should not, however, be interpreted as anti-classical, but rather as an attempt to affect a direction of a naturalism that was incompatible with the spiritual concept of the icon. After the fall of Constantinople in 1453, Byzantine icon-painting continued mainly in the monasteries of Mount Athos, which enjoyed a certain degree of autonomy under Turkish rule, and on Crete, then under Venetian domination. Produced in great quantities, and often very competent technically, the early Cretan icons displayed a high degree of conservatism, stylistic as well as iconographic.

However, as time went on, close contact with Ven- ice brought about an infusion of Western elements, and in the later mixed style we sense a dissolution of the spiritual values that are the raison d'être of the icon for far more than a millennium, the icon has been central to the life of the Orthodox believer. In wide acceptance has rested upon the ability of artists to mis tradition and Mn ovation. Subject matter, whether dictated by the Church or developed as illustration of popular belief, has always remained understandable to the masses. At the same time, a sufficient incisure of artistic freedom exited to allow the development not so much of a personal style-although the individual note is by no means missing-as of a style conditioned by the structure of society and the various classes that commissioned (Weitzmann, 1990).

STATE AND METHODOLOGY OF CONSERVATION (THE CRUCIFIXION ICON)

The icon of the crucifixion dating back to 19th Century at the Monastery of Al-Syrian in Wadi Al-Natrun, Egypt (**Fig.3**). The painting was carried by School of Anastasi Al Qudsi Al Rumi, who worked for Copts in Cairo between 1836 and 1871 and always signed and dated his work in Arabic. "The title maqaddis or holy person was given at that time to any Christian who had been to Jerusalem, as an equivalent to the Muslim title hajj given to those who make the pilgrimage to Mecca". This icon painter was also close to the Coptic patriarchate, in the ancient Church of St Mena, near old Cairo he restored Yohana Al Armani's work: the curved wall of

the main sanctuary is paneled and depicts the Enthroned Christ the Hight priest flanked by Aaron and Moses attesting to a revival of Coptic clergy's interest in the Old Testament roots.



Maqaddis Anastasi Coppiced his post Byzantine models in the Levantine Melchite fashion popular in the Holy Land. On hundreds of icons, he recorded details of daily life in as sample, recognizable style. In Upper Egypt, almost every Coptic Church still has at least one icon from his workshop. Some of his icons are unique, commemorating little know Upper Egyptian saints like Anba Hadra, bishop of Aswan.

Anastasi's death truly left a void. Although his icons were sent from Cairo, Upper Egyptian needed more sacred pictures. Therefore, pious but untrained Coptic Priests and Monks themselves painted icons of local saints such as "Anba poste, bishop of Ibshai" and "Anba Bidaba, bishop of Qift", still preserved in churches in Akhmim and Nag' Hammadi. (Henin, 2023).

Figure 3. The Icon of Crucifixion dating back to 19th Century - Before Conservation (School of Anastasi)

The icon under study has been subjected to numerous deteriorating factors due to the surrounding environmental conditions, including pollution and high humidity. Additionally, human-induced damage, such as frequent touching of the icon for blessings, has resulted in minute scratches and the transfer of fats onto the painted surface. All of the aforementioned factors have led to the formation of a thin layer of grime and soot covering the painted layer, as well as a dulling of the varnish layer, as Natural resin varnish darkens over time, which is well known a feature for artists and conservators, but there are differences between varnishes as regards how dark they become, however, as time passes, all natural resin varnishes darken to the point where the darkened layer to some extent obscures the colors under it (Laaksovirta ,2021) .This necessitated intervention to preserve the icon from further deterioration."



Initially, the paint layer was secured by applying an 5% gelatin adhesive with Japanese tissue paper before cleaning process (Fig.4). The second step was to dismantle the wooden frame of the icon in order to tighten the canvas and treat its bulge. This remarkable moment led to the discovery of an underlying icon of the Virgin Mary dating back to the Medieval. The canvas layer was not completely adhered to the underlying icon, which greatly facilitated the removal process.

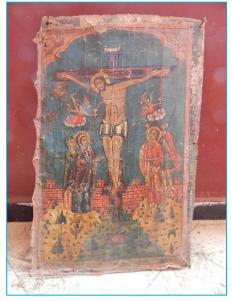






Figure 5. The Canvas after a detachment process

After the canvas was successfully detachment (**Fig.5**), the four weakened edges of canvas were consolidated through lining. For this purpose, a 10% rabbit glue solution was used with pieces of pure linen (**Fig.6**).



Figure 6. During the edges Consolidation





Then mounted the canvas layer, which bears the painted layer onto a new wooden support. This support was prepared and selected from the same type of wood that the original painter used to create icons in the 19th century, to enhance the stability of the new wooden support under varying thermo-hygrometric conditions, two additional wooden beams were mounted on its rear side (**Fig.7**).







Figure 7. The new wooden support and the Crucifixion icon after a detachment

Following the previous step, an external frame was constructed to secure the icon to the new wooden support (**Fig.8**). This was necessary because prior to removal, the icon was not adhered to any adhesive but was instead secured by a previous external frame. Subsequently, the fragments were affixed using a 5% gelatin adhesive .A mixture of organic solvent (Italian thinner) and ethylene glycol in a 3:1 was used to remove surface dirt and the damaged varnish layer from the paint layer surface. Missing areas of the preparation layer were filled with a putty (Gesso). The missing color portions were then completed using colors and pigments matching the original layer. Finally, the imaging layer was isolated with a protective layer of French dammar varnish thinned with vegetable turpentine oil in a 2:1. The object was then left to dry at room temperature (**Fig.9**).



Figure 8. The Icon with a new frame



Figure 9. The Icon after Conservation

THE LOWER ICON (THE VIRGIN MARY)

The icon, which was discovered by chance, presents the Virgin Mary enthroned on an elaborately carved wooden seat, painted in pristine white. She rests upon a red green cushion, tenderly embracing the Christ child. Her hands, one below and one above, enclose him within an almond-shaped aureole edged in gilded plaster. The Christ child, holding a book, offers a blessing with his upraised hand. This sacred image graces the Church of the Virgin Mary at Al-Syrian Monastery in Beheira Governorate (**Fig.10**).







Figure 10. The Virgin Mary Icon dating back to Medieval Before Conservation

DATING THE VIRGIN MARY ICON



The discovered icon has been attributed to the Medieval period due to the striking similarity of its artistic features to those characteristics of the time. This attribution is supported by extensive comparisons with numerous examples of artwork, particularly from the Monastery of Saint Anthony at the Red Sea. For example; A common artistic motif of the Medieval period is the depiction of Jesus Christ enclosed within an almond-shaped halo, known as a mandorla (Fig.11).

Figure 11. Virgin Mary and Christ Child Painting at the Monastery of St. Antony at the Red Sea dating back to Medieval Coptic

In Christian iconography, the mandorla is employed in certain iconic scenes, encompassing the figures of Christ, the Holy Trinity, the Virgin Mary, and occasionally, specific saints. The mandorla serves to demarcate a sacred space around Christ. This separated space can be interpreted as a representation of heaven, or the "other world", as a metaphysical realm where sacred events occur, and as a symbol of the resplendent Divine Light of the Glory of God. In some of the iconographical subjects in which it is involved, the mandorla primarily conveys a luminous connotation, as is the case, for example, in the Transfiguration of Christ. (Todorova, 2023)

Furthermore, a mural within the Virgin Mary's Church of the Syrian Monastery showcases a similar artistic style, characterized by deep red tones and intricate gold lines (**Fig.12,13,14**). These stylistic elements closely align with the gold lines observed in the icon being analyzed.



Figure 12. The Virgin Mary wall painting at Al-Syrian Monastery, dating back to 10th Century



Figure 13. The red tones at the Virgin Mary Wall painting-10th Century



Figure 14. The red tones at the Virgin Mary Icon under study

At the conclusion of this historical segment, it can be asserted that the icon depicting the Virgin Mary holding the child likely dates back to a period between the 10th and early 13th centuries AD. This assertion is grounded in the presence of an identical iconographic subject and shared artistic attributes in a mural dating to the 10th century AD(Fig.15,16,17). Furthermore, the identical chair ornamentation found in the icon is also present in another mural from the 8th century, before it was covered and overlaid with a subsequent layer of painting in the 13th century AD.



Figure 15. The Virgin Mary wall painting at Al-Syrian Monastery, dating back to 10th Century



Figure 16. The Mandorla at the Virgin Mary wall Painting -10 century



Figure 17. The Mandorla at the Virgin Mary Icon under study

THE VIRGIN MARY ICON STATE

The icon, when found, was in a state of disrepair. A buildup of dirt and grime had obscured its original appearance. Moreover, the wooden support had suffered damage, with small pieces missing. The icon was composed of a wooden support, Preparation layer, and a paint layer. A visual inspection revealed that the wooden support was infested with woodworms, significantly weakening its structure. Given the severity of the damage, immediate conservation measures were deemed essential to prevent further deterioration and ensure the icon's survival.

CONSERVATION METHODOLOGY:

1- WODEEN SUPPORT DISINFECTION

At first, due to the wooden cradle's infestation with wood-boring beetles from the rear side, resulting in tunnel formation, a disinfection process was carried out. The tunnels were injected with a solution of clove oil with Ethyl alcohol. Additionally, the entire cradle was swabbed with the same solution using a soft brush

2- CLEANING METHODS

Prior to commencing mechanical cleaning, the Fragments were secured to the paint layer using 8% gelatin adhesive. Subsequently, soft brushes were employed to remove surface dust, while a scalpel was utilized to remove calcified. Prior to commencing the chemical cleaning phase, a color sensitivity test was conducted to select the appropriate solvents for the specific case at hand. Based on these results, ethyl alcohol and a mixture of dimethyl formamide (DMF) and Italian thinner in a 3:1 were employed to remove the accumulated soot from the surface of the paint layer. This was done to conserve the original appearance of the paint layer and improve its overall condition (**Fig.18**)



Figure 18. During Cleaning

3- ICON COMPLETION PLAN

This stage is paramount in the conservation process, as it culminates in the complete and visually compelling presentation of the icon. The conserved icon will be suitable for display in the church for veneration and liturgical use. The approach is informed by a recent successful conservation at the St. George Church in Haret Zuwaila at the Historical Cairo (Fig.19), where a missing piece of the cross was replaced with wood. Subsequent layers of preparation and pigments application have yielded a visually harmonious and complete the Cross, fully prepared for its intended religious function.



Figure 19. Part of the Cross at the St. George Church in Haret Zuwaila, Cairo

A preparation layer was applied to the added wooden piece using gesso with 8% gelatin glue solution (Fig.20). Due to the lack of complete documentation of the original icon, further research was conducted, yielding numerous examples from which the essential features of the Virgin Mary's face could be derived. The face of the Virgin Mary was copied from a wall painting in the Church of the Virgin Mary at the Syrian Monastery, dating back to the 8th century AD. Notably, the artistic features of the child's face in the icon to be completed exhibited a striking similarity to those of the Virgin Mary's face in the wall painting.





Figure 20. The Filling Process

It's important to mention that the new wooden component added to the icon's wooden support wasn't fixed to the original support with any adhesive. Rather, a wooden frame was employed to secure the icon, consisting of the original support and the newly wooden piece. (Fig.25).

A projector was employed as a contemporary tool for transferring the drawing. By projecting the image onto the wooden support to be completed, the image could be enlarged or reduced until it matched the dimensions of the face in the icon under study (Fig.21,22,23).



Figure 21. the Virgin Mary wall painting at Al-Syrian Monastery, dating back to 8th Century







Figure 22. A.B The face of Jesus Christ in the icon under study is similar in artistic features to the face of the Virgin Mary in the Wall painting

Figure 23. During Copied the Virgin Mary face

A loss in the paint layer represents a negative alteration that diminishes the value of awork of art, whether aesthetic, devotional, or commercial. Complete reintegration, also referred to as "imitative" or "mimetic" retouching, aims to reconstruct the missing parts of the image by emulating the appearance of the original painting as closely as possible. (Metzger,2011)

So, the missing parts of the Virgin Mary's face and other incomplete sections of the painted layer have been fully restored using the Italian technique known as tratteggio (**Fig.24**), widely regarded as one of the world's best methods currently available for this purpose. Tratteggio consists of the application of many vertical strokes of various colors that are gradually built up to approximate the appearance of the original from a normal viewing distance, while remaining discernible under closer examination. Depending on the assessment of the impact of the loss, tratteggio could be used to reconstruct the missing forms of the composition or as a general toning of the lost areas. The technique was intended to provide a precise formula that would mitigate subjective influences and personal idiosyncrasies in the execution of the retouching. (Metzger, 2011)

As a final step, the painted layer was isolated with a 2:1 diluted French dammar varnish in vegetable turpentine. As Dammar is a polydisperse - low MW natural resin that many conservators still use today. It was first introduced to western restorers early in the nineteenth century, and quickly became widely popular due to its clarity and gloss. (Julia M. van den Burg, 2022)





Figure.24. The Retouching processes by Tratteggio technique

(Winsor& Newton Water Color)

The icon has been placed in a specialized storage facility within the monastery, designed to preserve art collections, in preparation for its future display in the historic Virgin Mary's Church at the Monastery of Syrian (Fig.25).

The paintings of Al-Syrian Monastery give a rare opportunity to follow the development of Christian wall painting in a single church from the seventh through the thirteenth centuries. This development over a period of more than 600 years has several aspects: the iconography of the themes depicted, the system according to which paintings were arranged in the decorative program of the church interior, and the painting technique used in the consecutive phase. (Innemée, 2023)







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Figure 24. The Overlapping Icon after a detachment and Conservation Design by: Bishoy Hana

Figure 25. A.B The Virgin Mary Icon dating back to Medieval after Conservation - Al-Syrian Monastery in Wadi Al-Natrun

CONCLUSION

Conservation sciences have contributed significantly to the preservation of Heritage, both in Egypt and worldwide. However, in our specific case, Conservation hasn't only conserved an icon but has also serendipitously led to the discovery of another icon dating back to the Medieval period, a golden era for icon painting that began with the icons of Saint Catherine's Monastery. The newly discovered icon depicts the Virgin Mary holding the child and was part of the collection of the Al-Syrian Monastery in Wadi Natrun.

Through study, it was found that the same iconographic theme exists in another mural within the monastery. Consequently, this research has yielded a wealth of new information that will benefit scientific research and scholars in the field of Coptic studies in general and Icon Conservation in particular. Additionally, it elucidates the completion techniques employed to restore the discovered icon to its former glory and bring it back to life after more than a century of obscurity. In this way, it will serve as a means for seeking blessings and will be used in religious rituals in the future.

Furthermore, this research has revealed that Coptic icons still hold many secrets, both in their execution techniques and the rich thematic content they carry, making them a fertile ground for researchers in the field of Coptic Heritage. Through this research, we have managed to dating the discovered icon, as it does not bear a written date or the artist's signature. Based on the icon's artistic characteristics, we were able to approximate its age, which significantly enhances its importance, considering that it dates back to the Medieval.

REFERENCES

Alawneh, F., Elserogy, A. R., & Sulaiman Al Dawood, R. (2018). The Conservation of the Byzantine icon from Georgios church, Jordan. Annales d'Université" Valahia" Târgovişte. Section d'Archéologie et d'Histoire, 20(1), 53-69.

Alberto Siliotti, (2007): Coptic Egypt: Egypt Pocket Guide, The American University in Cairo Press, Drawing: Stefania Cossu – Elisa Martini.

Henin, E., Abdallah, M., & Kaiser, A. (2023). TREATMENT OF THE VIRGIN MARY ICON OF THE PAINTER ANASTASI AL QUDSI AL RUMI DATING BACK TO 19TH CENTURY IN EGYPT. International Journal of Advanced Studies in World Archaeology, 6(1), 76-83.

Helmi, F. M., Abdelghani, M. H., & Abdelmalek, S. Y. (2023). Archaeometric Investigation of A Triptych Coptic Icon, El-Surian Monastery, Egypt. Advanced Research in Conservation Science, 4(2), 31-51.

Innemée, K. C. DAYR AL-SURYAN: 2023 UPDATE OF NEW DISCOVERIES.

Julia M. van den Burg., (2022) Varnishing and Inpainting/Retouching, Cultural Heritage Agency of the Netherlands, Amersfoort.

Konstantinos A.Manafis ., Sinai Treasure of the Monastery of Saint Catherine, printed by St.Karydakis, Graphic Arts, S.A, 1990.

Laaksovirta, E. (2021). Studying Restoration Painting: A Case Study of a Modification. Tahiti, 11(2), 63-81.

Metzger, C. A. (2011). Painting Conservation Catalog: Volume III: Inpaiting. Paintings Specialty Group of the American Institute for Conservation, American Institute for Conservation of Historic and Artistic Works.

Ouspensky, L., The meaning of Icons, Published by St. Vladimir Seminary Press, 1989.

odorova, R. G. (2023). The Mandorla Symbol in Byzantine and Post-Byzantine Iconography of the Dormition: Function and Meaning. Religions, 14(4), 473.

Refaat, A., Atta, D., Osman, O., Mahmoud, A. A., El-Kohadary, S., Malek, W., ... & Ibrahim, M. (2019). Analytical and computational study of three coptic icons in Saint Mercurius Monastery, Egypt. Biointerface Research in Applied Chemistry.

Skalova, Z., & Gabra, G., Icons of the Nile Valley Egyptian. International Publishing Company-Longman, Cairo, Egypt, (2003).

Weitzmann. K., The Icon, printed and bound in spain by Artes Graficas Toledo S.A., 1990.