

The Impact of Reuniting a Colossal Dyad of Amun and Mut

Marwa Hamada

mhf11@fayoum.edu.eg

ORCID 0000-0002-6539-3541

Faculty of archaeology, Fayoum university, Fayoum, (Egypt)

Abstract

This study explores the colossal dyad statue of Amun and Mut as a significant example of archaeological reunification. It aims to examine the transformation of the artifact from a fragmented state to unification and to analyze how this unity enhanced its value as both a historical and artistic piece. This process ultimately led to the artifact's display as a masterpiece at the Grand Egyptian Museum. This study employs a mixed-methods approach, collecting both qualitative and quantitative field research data alongside an extensive literature review. It aims to assess visitor experience and gather varied perspectives on the reunification process using semi-structured interviews and visitor surveys. The study concluded that the reunification of the statue was not only a restoration process but rather a "restoration of its historical identity." It is regarded as a resurrection of the statue and its narrative. The reunification process improved visitors' cognitive clarity and provided specialists with a more accurate ability to interpret the artifact's archeological context. The study suggests that reunification is the most effective method for converting archaeological fragments into an engaging historical narrative for museum audiences.

Keywords

Dispersed Artefacts;
Fragmented Statues;
Reunification;
Museum Interpretation;
Visitor Experience.

Conflict of Interest: None declared

Funding: Not applicable

Author(s) Contributions:

Author 1. Marwa Hamada

Received: Sep. 17, 2025

Accepted: Dec. 02, 2025

Published: Jan 1, 2026

1. Introduction

This research is part of my doctoral dissertation. Artifacts serve as crucial evidence of human civilization's history. Their importance extends beyond being mere physical remnants of the past; they act as repositories of cultural memory and historical identity. Many of these items, particularly those from ancient Egypt, have been scattered across various historical periods due to several factors, including early discoveries, collection policies, exchanges, looting, illegal trading, official gifting, and acquisitions by museums and international agencies (Stevenson 2019, pp. 10-11). This scattering has led to the loss of the artifacts' original context, which negatively impacts their scientific and interpretive understanding and, consequently, our ability to fully grasp the cultural and historical narratives they embody (Abd el-Gawad & Stevenson 2021, pp. 122-123). The significance of reuniting dispersed artifacts has developed as a contemporary issue in heritage studies. This approach aids in restoring the original context of the artifacts, improving the precision of archaeological interpretation, and reconstructing the historical story more carefully. This method enhances the visitor's experience at the museum and increases their comprehension and enjoyment of the artifact's cultural significance (Chahine 2025, p. 41). The term “reunification” refers to the process of reassembling or reconnecting elements that were once a cohesive unit but have been divided or dispersed over time, either physically or cognitively/interpretively (Punzalan 2013, p. 23).

The term “Reunification” indicates the restoring of original unity after division, emphasizing the reconstruction of functional or contextual links among the parts (Leitão & Stolfi 2002, pp. 4-6). Both the Cambridge Dictionary (Cambridge University Press) and the Merriam-Webster Dictionary indicate that the concept of reunification means the act or practice of reuniting individuals or objects after a period of separation. In Egyptology, reunification indicates the process of recognizing, matching, and reassembling fragments of a single artifact such as a statue, sarcophagus, or wall relief that have been separated. Reunification in heritage studies is not limited to a single model but rather takes several forms depending on the nature of the intervention and its tools, as follows (Fig.1):

-Physical reunification defines the gathering, reassembling, and restoring of dispersed parts of a single statue, with the objective of restoring the artifact's physical and visual coherence while enhancing its historical and interpretive significance (Abate 2019, p. 120).

-Digital Reunification refers to the collection of data, two-dimensional images, and archive records into a unified online archive or database. It enables researchers to acquire comprehensive information about dispersed parts in a single "digital file" (Pietroni & Ferdani 2021, p. 19).

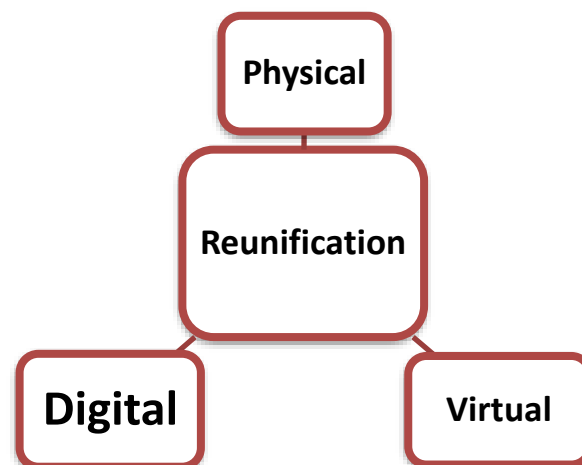


Figure 1: Types of reunification processes of scattered objects, designed by Author

-Virtual reunification involves using 3D modeling and virtual reality to reconstruct fragmented artifacts digitally. Researchers "merge" digital replicas of dispersed parts, enabling them to visualize the complete artifact despite its original pieces being in different locations. This approach consolidates heritage collections into a digitized representation linked by a common origin or provenance, as described by Punzalan (Punzalan 2014, p. 16).

This research examines the significance of the reunification processes for scattered objects and explores the effects of reuniting dispersed artifacts on museum interpretation and visitor experience. It uses the case study of the statue of Amun and Mut to highlight the scientific benefits of this process and assess its significance and outcomes.

2. Fragmentation of the Statue of Amun and Mut

Hourig Sourouzian (Director the Colossi of Memnon and Amenhotep III Temple Conservation Project in Luxor since 1998, Corresponding Member of the German Institute of Archaeology, and member of the ICOMOS Armenia.) discovered the colossal sculpture of solid limestone depicting Amun and Mut in the temple of Karnak. After a thorough analysis of the statue's remains, she identified it as a representation of the god Amun-Ra and the goddess Mut seated on a throne, with a height of 4.15 meters. The statue originated from Karnak and was previously located in the northern hall between the IV and V pylons of the grand temple of Amun-Re, where it was dedicated by Horemheb at the end of the 18th Dynasty (Sourouzian 2018, p. 139).

The scattered remains of this sculpture have been found during 130 years of excavation; it has been fragmented into multiple parts and is distributed across six locations (Sourouzian 2018, p. 141). First, the female head was found by Auguste Mariette in 1873 and sent to Cairo, where it was put on display in the newly founded Museum of Egyptian Antiquities in Boulaq. A few other fragments, including her double crown and the left half of her chest, were discovered ten years later by Maspero and joined the female head in the museum in 1903 (Grand Egyptian Museum 2025). Several large pieces were found by George Legrain, among them the head of the god Amun, as well as pieces from the throne and the statue base inscribed with the names of Amun-Re, Lord of Karnak; Mut, Lady of Asheru; and Horemheb (EL-Shorouknews, Aug 1 2025).



Figure 2 (A), (B): Head of the Goddess Mut as displayed separately in the Egyptian Museum until 1999, and head of God Amun and pieces of the body and throne stored in the Egyptian museum's basement. (Sourouzian, 2018).

The pieces were sent to the Egyptian Museum (fig.2 A, B), waiting to be reassembled. In 1915, these pieces were transferred to the storerooms of the basement, and so the project of this monumental sculpture was temporarily abandoned and eventually forgotten (Sourouzian, 2018, p. 142).

During more than a century of excavations at Karnak, other fragments had been unearthed and kept in storerooms in Cairo and Karnak without having been identified as belonging to this sculpture. Following her extensive research in the Egyptian Museum, the pieces were grouped, documented and cleaned, before being mounted on a metallic armature, which proved to be very advantageous, as it facilitates the addition of new pieces any time they can be found. Now the reassembled statue (fig. 3 A, B), represents Amun-Rê and Mut seated side by side, the goddess embracing the god with her left arm (Sourouzian 2018, p. 143).



Figure 3: The reconstruction of Amun and Mut statue in the Egyptian Museum in 1999. photographed by Author.

The statue was transferred from the Egyptian Museum in Tahrir to the Grand Egyptian Museum, where it is currently displayed as a notable artifact in the exhibition hall, receiving considerable admiration from visitors and scholars. (Fig. 4).

A great monument of Egyptian art has not only been identified and rescued from loss and oblivion, but a masterpiece of Egyptian art from the reign of Horemheb has been rediscovered, conserved and put on display. Every item and every statue have a special meaning because they were not made at random, but with a specific purpose in mind and a message to express (Connor 2022, p. 51). As a result, such initiatives are comparable to resurrecting art items and safeguarding antiques and legacy. Hourig's initiatives involving the assembly of statue fragments are successful and inspiring (Egypt Museum, n.d.).

3. The Effect of Reunification

This statue serves as an example of a museum presentation that relies on the physical reunification of its fragments. This massive sculpture from the New Kingdom features two

deities in a formal seated position and shows clear signs of damage and loss. Even with some parts missing, the reconstruction effectively illustrates what the statue originally looked like, including its size and overall design. This approach allows the monument to convey meaning without the need for modern copies or additions. Additionally, it establishes a clear distinction between the original parts and the missing parts. This approach reflects a contemporary museum concept that seeks to balance display integrity with a commitment to the authenticity of artifacts (Sourouzian 2018, p. 144).



Figure 4: The statue of Amun and Mut as a masterpiece in the Main Galleries, (Gallery 09), (GEM 6729), the Grand Egyptian Museum, photographed by Author.

The impact of reunification on the statue itself.

The statue is depicted as a unified structure. By assembling its pieces, it comes to life and transforms from a meaningless collection of stones into a cohesive living entity, presenting itself as a "single body" instead of "separate parts." Although some parts were still missing, the unification provided a better understanding of the sculpture's original posture, dimensions, and overall layout, thereby restoring the statue's ability to convey its iconic meaning.

The impact of reunification on the museum interpretation

The physical reunion of the statue at the museum interpretation level creates a distinct visual narrative based on its shape, rather than relying solely on verbal explanation. The monument illustrates how the museum should approach fragmentary artifacts, depicting reunification as a systematic, scientific process that acknowledges the limitations of archaeological understanding. This approach also encourages discussion on themes such as authenticity, loss, and the boundaries of reunification, thereby enhancing the interpretive value while maintaining the artifact's original materiality.

The impact of reunification on the visitor engagement

The researcher employed both qualitative and quantitative methodologies in her study, incorporating literature reviews alongside a mix of questionnaires, semi-structured interviews, and random interviews. These methods targeted a diverse range of participants, including visitors, specialists, museum staff, and students, to assess the impact of reuniting scattered objects on museum interpretation and the overall visitor experience. So far, the researcher has distributed approximately 100 surveys and plans to deploy additional questionnaires soon. The researcher will share the comprehensive results and analyses from these questionnaires in her doctoral dissertation. This research focuses on "the physical reunification" of scattered artifacts, specifically illustrated through the case study of the dyad statue of Amun and Mut, demonstrating how the reunification of its fragmented pieces enhances interpretation and visitor engagement.

Initially, interviews were held with specialists and staff to collect their insights and some specific questions related to the statue were directed at a group of professionals and visitors, with approximately 53 participants responding. These individuals were selected from diverse backgrounds and positions to ensure a range of perspectives and a comprehensive study. For example, The museum visitors, specialists, and staff at the Grand Egyptian Museum, additionally, three restoration professionals from the Faculty of Archaeology at Fayoum University shared insights on the statue. The study also involved 34 male and female students from different academic years at the faculty during field visits to the Grand Egyptian Museum, along with surveys were conducted with ten randomly selected visitors from the general public, to gather their opinions on the importance of reuniting the "Amun and Mut" statue. The questions were as follows:

1. What is your evaluation of the Amun and Mut dyad following its physical reunification? How did the statue's completion enhance your understanding?
2. How does reuniting Egyptian artifacts affect a museum's interpretative approach?
3. In general, what are your thoughts on the practice of reuniting fragmented artifacts in museums? Do you believe this approach improves the comprehension of the artifacts and enhances the visitor experience?

Most of the answers to the first question were similar, as they emphasize that the statue's aesthetic value lies not in its physical beauty but in the "artistic secrets" and intrinsic spirit it embodies. This understanding establishes it as a distinctive model that encourages both specialists and the general public to engage in ongoing reflection. They were fascinated by the statue's historical and artistic value, its display, and the way its scattered pieces were carefully reassembled. The assembly showcases the professionalism of the restorers in preserving the original pieces while securing them in a way that accentuates the statue's form without obscuring its history or the effects of time. As a result, viewers are offered a visual experience that seamlessly blends authenticity with scientific accuracy. The presentation emphasizes the beauty of the piece and conveys a deep respect for its cultural significance. It also reflects a significant impact. The restoration process represents both a technical and creative endeavor, transforming disparate fragments into a unified work that narrates the history of a magnificent civilization.

In response to the second question, the majority of answers indicated that the reunification of scattered artifacts, whether in physical or digital form, is a fundamental technique in cultural heritage management, essential to restoring the historical and artistic context of an artifact. The fragmentation of an artifact's fragments, whether resulting from its discovery, handling, or museum acquisition, diminishes its functional and symbolic significance, therefore limiting its ability for comprehensive scholarly interpretation. The reassembly of these fragments plays a

crucial role in reconstructing the artifact's historical narrative. It emphasizes the artistic and symbolic features with greater precision, offering researchers and visitors a deeper understanding of the artifact's original role and cultural significance. The resultant reassembly also impacts the academic realm, enhancing the museum experience by transforming the artifact from fragmented pieces into a unified archaeological entity. This unity not only draws people in, but it also makes them more interested in and appreciative of the artifact's significance. Projects aimed at collecting scattered artifacts can effectively revive material heritage and enhance its role in contemporary museum interpretation, provided they adhere to a clear scientific methodology that emphasizes the principles of documentation, authenticity, and transparency in presentation.

Regarding the third question, the responses indicated that the vast majority of participants regard the practice of reuniting scattered artifacts as a vital approach, both cognitively and interpretively. Participants noted that reassembling an artifact enhances its visual appearance and helps in restoring its historical narrative, allowing the museum to uncover meanings and significance that may have been unclear in its fragmented state, such as completing missing texts or scenes. This process can lead to a reinterpretation of certain historical or religious aspects associated with the artifact. A substantial number of participants also believed that reassembled artifacts have greater appeal within exhibition halls, as the act of reassembly is perceived as a reflection of their importance and value. The effort invested in restoring and unifying their parts demonstrates a museum's awareness of their cultural significance. Additionally, participants felt that reassembly highlights the scientific and technical efforts involved in the restoration process while simultaneously emphasizing the importance of responsibly preserving and reinterpreting cultural heritage. The participants agreed that this approach significantly enhances the visitor experience within the museum, particularly when paired with clear presentations and engaging explanations. The combination of visual completeness and effective interpretation deepens understanding and fosters interaction, thereby improving the overall visitor experience.

Additionally, informal interviews were conducted randomly with museum visitors to figure out their perspective on the reunification of the Amun and Mut dyad. The questions were designed using clear, non-technical language to ensure they were accessible to the general public, effectively obtaining true reflections from visitors. The questions were as follows:

"Did you like this statue?" What are your thoughts on its current form? Do you agree with assembling it this way? Is it useful to reunite the scattered artifacts? And does this approach affect museum interpretation?

Regarding responses to the questions, most responses emphasize that the participants found the monument to be their favorite piece of art (statue of Amun and Mut). Contrary to expectations, which usually favor artworks with complete elements, answers unexpectedly demonstrated remarkable admiration for this monument, which was regarded as one of the most artistically beautiful works in the hall collection, despite its present condition. Visitors expressed that the monument inspired a sense of "emotional awe" and considered it their favorite piece of art due to its representations of love and human connection that transcend its stone material. Some of the individual responses were as follows:

- The first aspect that drew my attention was the harmony of the piece. When the parts were assembled, the statue became visually appealing. I believe that the complete form helps the eye grasp the concept more quickly. Another one indicated that "I'm not an expert, but I felt that the completeness made it easier to understand. I pondered it since it was complete; otherwise, I would have skimmed it. Another visitor expressed that he felt the statue had come back to life. It was as if reassembling the pieces had restored their identity. He also expressed that

completion of the statue made the written explanation merely an addition, rather than the primary focus. Some visitors admire the statue, but they observe that in some cases, the museum may overemphasize the reassembly process at the expense of explaining the history of the fragmentation itself, which can lead to a lack of understanding about the cultural and historical significance of the original state of the artwork.

Most participants agreed that a strong relationship exists between the completeness of museum objects and their interpretation; specifically, the more complete the piece is, the clearer and more obvious the interpretation becomes for visitors. Some of the individual responses were as follows: Some visitors emphasize that interpretation becomes easier when the artifact itself conveys the idea, rather than relying on lengthy explanations from the museum. Others highlight that reassembling the artifact allows for a greater focus on the object rather than just the written descriptions. Some respondents argue that this process shifts interpretation from merely describing individual parts to providing a comprehensive understanding of the entire concept. Another viewpoint suggests that this interpretive approach is more accessible to visitors, as it relies on observation rather than reading. Additionally, a different group perceives that reunification necessitates a rethinking of the museum narrative, placing the artifact itself as the primary focus of interpretation instead of the accompanying text.

The participants noted the interpretation of the statue of Amun and Mut. They acknowledged the statue's undeniable visual appeal; however, its current display lacks a thorough explanation of its history of fragmentation and the various stages involved in its discovery, reassembly, and repair. Therefore, enhancing the interpretative aspect is essential for enriching the visitor experience. Modern technologies provide a more effective and engaging solution in this regard, particularly when they exhibit the artifact alongside interactive digital tools like QR codes. These codes allow visitors to access information about the statue's origins, its fragmented state, and the processes of restoration that led to its present form using their mobile devices. Additionally, digital technologies can present visual reconstructions of the statue's original, complete shape, aligning with the preferences of today's audience and their learning styles in the digital age.

4. Conclusion

In conclusion, the statue of Amun and Mut serves as a prime example of how reassembly is essential for restoring an artifact's value. Initially, the statue existed as scattered fragments in museum storage, lacking cohesive meaning. However, following its restoration, these pieces became distinctive and drew a broader audience. The process of reuniting its parts transcended a mere technical endeavor of stone restoration; it symbolized the revival of an artistic entity and a religious icon that had lost its significance for centuries. Restoring the statue to its complete form demonstrated that an artifact can only convey its full story when its parts are reunited. This completeness enhanced the visitor experience and improved the interpretation of the statue in the museum, allowing it to be prominently displayed in the hall as a distinctive object rather than being overlooked as merely stored stones. Consequently, this statue exemplifies that preserving ancient Egyptian identity requires maintaining its exquisite details and assembling its fragmented parts, ensuring the artifact remains a cohesive entity, resilient against the ravages of time. Based on these observations, the study concluded with several essential findings that can be summarized as follows:

- The analysis indicated that the reassembly of the monument was more than a mere restoration; it represented a "reclaiming of identity." The finished structure highlights artistic and political dimensions, such as nostalgia and reuse, that were absent in its fragmented state.

- The results, derived from surveys conducted with specialists and visitors, indicate that the completed artifact enhances "cognitive clarity" and enriches the museum experience. This transformation turns the artifact from a silent ruin into a living entity that conveys story, fostering an emotional connection and deepening appreciation for the significance of Egyptian heritage.
- The study suggests that integrating physical reunification with technological applications is the most effective method for preserving and displaying scattered cultural property appropriately.

5. References

1. Abate, A. F. (2019). Virtual and physical recomposition. *Journal of Heritage*, 5(2), 120.
2. Abd el-Gawad, H., & Stevenson, A. (2021). Egypt's dispersed heritage: Multidirectional storytelling through comic art. *Journal of Social Archaeology*, 21(1), 121–145. <https://doi.org/10.1177/1469605321992929>
3. Cambridge University Press. (n.d.). Reunification. In *Cambridge dictionary*. Retrieved February 13, 2026, from <https://dictionary.cambridge.org/dictionary/english/reunification>
4. Chahine, P. (2025). Digital reunification and documentation of dispersed artifacts from Thonis-Heracleion: A metadata case study of the Amun Gereb Naos and a framework for future storytelling and virtual interpretation. *Pharos International Journal of Tourism and Hospitality*, 4 (2), pp. 37-54. <https://doi.org/10.21608/pijth.2025.421311.1027>
5. Connor, S. (2022). *Ancient Egyptian statues: Their many lives and deaths*. American University in Cairo Press.
6. Egypt Museum. (n.d.). *Statues of Amun and Mut*. Retrieved March 4, 2026, from <https://egypt-museum.com/statues-of-amun-and-mut>
7. Georgetown Journal of International Affairs. (2021, July 15). *The role of digital technology in the restitution of cultural artifacts*. <https://gjia.georgetown.edu/science-technology/the-role-of-digital-technology-in-the-restitution-of-cultural-artifacts/>
8. Grand Egyptian Museum [@grandegyptianmuseum]. (2025, July 29). *The Grand Egyptian Museum treasures* [Video]. Instagram. <https://www.instagram.com/reel/DMqYk1ysphc>
9. Leitão, H. C. G., & Stolfi, J. (2002). Digital reconstruction of fragmented artifacts. *Proceedings of the 15th Brazilian Symposium on Computer Graphics and Image Processing (SIBGRAPI)*, 316–323. <http://www.ic.unicamp.br/~stolfi/fragments.html>
10. Merriam-Webster. (n.d.). Reunification. In *Merriam-Webster.com dictionary*. Retrieved February 13, 2026, from <https://www.merriam-webster.com/dictionary/reunification>
11. Pietroni, E., & Ferdani, D. (2021). Virtual restoration and virtual reconstruction in cultural heritage: Terminology, methodologies, visual representation techniques and cognitive models. *Digital Applications in Archaeology and Cultural Heritage*, 21, Article e00181. <https://doi.org/10.1016/j.daach.2021.e00181>
12. Punzalan, R. L. (2014). Barriers and challenges to virtual reunification. *Proceedings of the 2014 iConference*, 401–413. <https://doi.org/10.9776/14131>
13. Punzalan, R. L. (2013). *Virtual reunification: Bits and pieces gathered together to represent the whole* (Publication No. 3594030) [Doctoral dissertation, University of Michigan]. ProQuest Dissertations and Theses Global.
14. Sourouzian, H. (2018). Statues also die, and they can also come back to life. In Museo Egizio (Ed.), *Statues also die: Destruction and preservation in ancient and modern times. Proceedings of the International Symposium, Turin 28th–29th May 2018* (pp. 11–24). Museo Egizio.
15. Stevenson, A. (2019). *Scattered finds: Archaeology, Egyptology and museums*. UCL Press. <https://doi.org/10.14324/111.9781787352049>
16. Islam Abdel Maaboud, “Statue of Amun-Ra and his wife Mut shines in the Grand Egyptian Museum following its restoration from 79 fragments,” *EL-Shorouknews*, Aug 1 2025, <https://www.shorouknews.com/news/view.aspx?cdate=01082025&id=d221373c-c1c8-45aa-897d-84615d2940ef>