



# The Digital Documentation System at the Grand Egyptian Museum: An Evaluation Approach

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## ABSTRACT

Applying digital documentation best practice aims to realize the intangible and tangible values of collections. Through adherence of best practice, museums can ensure that their spaces remain dynamic and enhance the information dimensions of the collections. Appropriate digital documentation of museum collections leads to the creation of accurate, reliable, and correct data that ensure and address the information included in various digital documentation systems.

The collections of the Grand Egyptian Museum (GEM) intend to illustrate the broad story of ancient Egypt, deepening its context in the era of information and technology. Digital documentation methods of the GEM must aim for comparability between the physical collection and the collections' cultural value. This study explores the challenges facing digital documentation at the GEM and investigates how the GEM's digital documentation policies and practices form the knowledge paradigms of its collections. We propose fresh and updated insights into the ways digital documentation in the GEM can be reimagined and form comprehensive knowledge models in line with contemporary theoretical, educational, and public access interests.

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## INTRODUCTION

The transfer of artifacts from the archaeological site to the museum, whether intended for display, study, or preservation, marks the beginning of the next phase of their lifecycle (Alexander, P., Mary A., and Juilee D. 2017, 4). Therefore, museums are responsible for accurately documenting their collection to ensure sustainability, preservation, and retrieval. The documentation is particularly important in the event of a loan, loss, or transfer from one place to another. Since documentation is the organizing of information about the museum collection for research, conservation, and display, proper documentation helps the museum effectively manage its collections. It also helps the museum maintain the most relevant scientific approaches in documentation, registration and data accessibility. Accordingly, museums are fully obligated to adhere to standard best practice of documentation, based on international policies, guidelines, and recognized professional practices. This is to ensure the preservation of cultural property for current and future generations (Bakogianni, S. 2006, 8). Moreover, documentation helps the museum to define the strengths of its collection, to retrieve the story of each object, and to track it inside the museum. Documentation contributes into the

preservation of collections from any expected or unexpected threats, and to facilitate access. It adds value to the artifact by revealing its historical, social, and artistic values (Bakogianni 2004, 118: (RASHED, 2024).

It has been argued that the Grand Egyptian Museum (GEM) holds unparalleled potential among modern Egyptian museums. (Hawass 2010). As one of the most ambitious cultural projects in the world, the GEM is poised to significantly enrich Egypt's cultural landscape. Through its state-of-the-art preservation, conservation, and safeguarding initiatives, the museum will play a pivotal role in protecting Egypt's rich heritage while simultaneously fostering global awareness and appreciation of its ancient treasures. The GEM is dedicated to showcasing the profound significance of Egyptian heritage by exhibiting and preserving approximately 100,000 artifacts. These objects span from the pre-dynastic era to the Greco-Roman period, collectively telling the expansive story of ancient Egyptian civilization. The museum offers a comprehensive reflection of Egypt's rich legacies, shedding light on the kingship, daily life, and beliefs of its people, while highlighting the enduring impact of their societal contributions across millennia (Grand Egyptian Museum 2010).

Approximately 30,000 objects will be on display in the museum and another approximately 70,000 will be kept in the GEM's storerooms for study, research, and future exhibitions. About 5,000 artifacts from the Tutankhamun collection is the GEM's key collection. Discovered in November 1922 by British archaeologist Howard Carter, this unique collection will be displayed for the first time (Hoving, Thomas 2002). The Tutankhamun gallery is about 14,000 square meters and presents the collection under five themes: Discovery, Identity, Lifestyle, Funeral, and the Afterlife. The GEM's other twelve main galleries, will reveal many well-known and significant collections (7. Interviewee 2023). Among them, one might count the Tell Al Farkha collection, the collection of Queen Hetepheres (the wife of King Snefru, and the mother of King Khufu), the treasure from Tod, and the wooden models of Mesehti (the governor of Asyut from the Middle Kingdom, whose collection is distributed between the Cairo Egyptian Museum and the GEM). (2. Interviewee 2022)

The GEM collection has gone through initial documentation processes that included measurement, object numbering, photography, material and condition analysis, exhibition assessment, and mounting requirements. Then, the collected data was reviewed and added to the GEM database.

### **1. History of The GEM Database**

The Grand Egyptian Museum (GEM) utilizes the 'FileMaker Pro' system as the central database for managing its collections. This database offers flexibility, allowing users to easily modify, add, or delete records based on operational needs. While FileMaker Pro is user-friendly and adaptable to the museum's day-to-day requirements, it is not as robust or feature-rich as other more specialized commercial systems such as TMS, KE-EMU, EmbARK, and Past Perfect, which provide greater capabilities for large-scale collection management and more complex data handling (Carpinone, Elana C. 2010, 10). The 'FileMaker Pro' is a digital management system with the ability to combine data from several tables to create forms and reports that reflect those relationships (Yerkey 2004, 20). This allows the GEM collection database to record the latest artifact information. The Documentation and Information Department of the GEM, conducts appropriate collection documentation, object recording, and object tracking (established in 2004).

Its primary task was to collect information about artifacts to assist the museum team

(consisting of an Egyptian and Italian partnership based on a collaboration between the two governments to prepare a feasibility study for the GEM project). A new phase of this department began in 2006, after the appointment of a museum exhibition designer. A British designing company called Metaphor was contracted to develop the permanent display. The company relied on extracted data from the database together with the expertise of the curatorial department to develop the design of the GEM galleries. To support the design, the exhibition designer requested monthly reports resulting in further development of the database content as far as new selected objects were recorded in the database, or inventories completed and cleaned. Egyptian Ministry of Antiquities programmers supported the development of the database by programming languages to facilitate the task. The Egyptian team continued the work for two years until the database contained about 68,000 artifacts. (1. Interviewee 2022) As a result of the work, the database was improved with object information that complemented the work of the exhibition designers (Tawfik, Tarek S., Zgouleta E. and Chaitas Ch. 2018, 9-12).

In 2008, an in-house developed excel database was exported into FileMaker by a team from the Japan International Cooperation Agency (JICA). The team also updated the programming language and implemented a phase of data clean-up. The new documentation system's primary goal was supposed to achieve high-quality information products to support one of the GEM's strategic goals of having a complete frame of data and knowledge about collections, which could then be used in exhibitions and collection development, academic research, interpretation, and education activities. This data could also be accessed by both stakeholders and researchers who might require more specific data (1. Interviewee 2022). In this frame, the Archaeological Database Department (ADD) at this time which contained around twelve graduate archaeologists, took the responsibility for collecting data, recording, documenting, photographing, and managing the data entry for the selected artifacts.

From 2008 to 2021, the number of artifacts in the GEM database increased to 85,000 records. Most of these artifacts were not physically located inside the GEM storages but were kept in other archaeological storerooms, waiting for their transfer to the GEM. The Archaeological Database Department (ADD) team at this time comprised about twelve graduate archaeologists who took the responsibility for collecting data, recording, documenting, photographing, and managing the data entry for the selected artifacts. From 2008 to 2021, the number of artifacts in the GEM database increased to more than 85,000 records.

### **1.1 The GEM's Database Structure**

The GEM's database structure follows the UK collection management standards "SPECTRUM" (1. Interviewee 2022). These standards support the team at the GEM in their recording, management, and use of the data about its collections. As for the vocabulary's lists, the GEM uses the MET thesaurus. (6. Interviewee 2022). The Thesaurus is a compilation of many sources used in general for computer applications. It has been developed by an international team of Egyptologists in seven languages and aims to provide standard documentation to describe Egyptian antiquities (Said Nasser and Heba Khairy, 2024).

The GEM's Collection Management System (CMS) is divided into three main modules: Identification, Physical, and Exhibitions. In addition, it covers other management activities such as conservation, condition report, etc., as well as a set of basic sections that represent a documentation methodology for describing Egyptian antiquities.

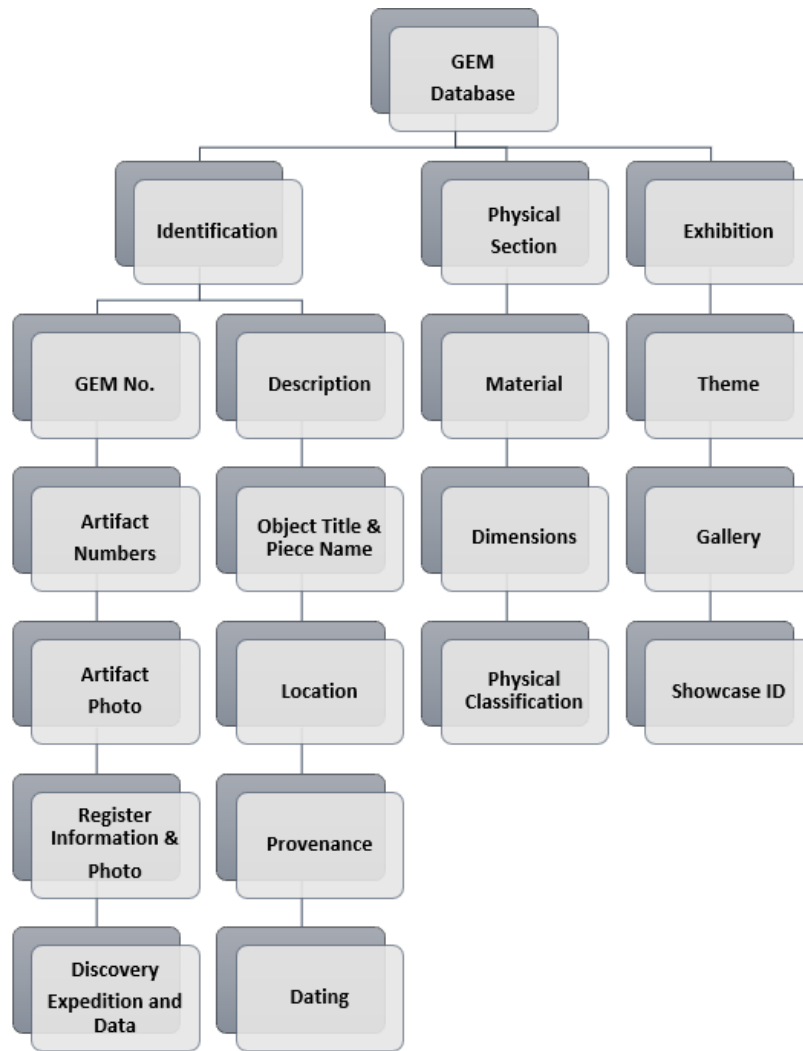


Fig. 1: The structure of the GEM database modules (designed by Author)

The Identification module records a detailed description of an object. It also records accession numbers, a thumbnail photograph of the objects, a brief description, and basic information associated with the object such as the object number, title, and description. The GEM considers the object ID recommendation and ensures that the object's basic data is accurate in this section. The Object ID is an international standard for the minimum information needed to identify and document museum collections. Museum authorities, government agencies, police, customs, and insurance agencies usually collaborate on this process. Adhering to this international standard helps the museum to prevent artifacts from being stolen, both internally and externally. (Thornes, Robin, Peter G. Dorrell, and Henry Lie 2000, 6-7) In case of theft, the information maintained using the Object ID norm can be cross-checked with other databases of stolen artifacts. Object ID was developed as a practical tool for stolen artifact recovery. It is internationally recognized as an effective approach when inventorying a collection (ICOM n.d.). The inventory number is usually utilized by museums for artifact registration and recording within its documentation systems (digital database, register book/catalogue, or accession cards). Some museums use inventory numbers as accession numbers, catalogue numbers, or registration numbers (Thornes, Robin, Peter G. Dorrell, and Henry Lie 2000, 9). These numbers aim to connect an object to its data and distinguish it from other objects within the same museum, collection, or other repository. (Thornes, Robin, Peter G. Dorrell, and Henry Lie 2000, 9)

The GEM accession number is given to each artifact to identify independently. The system also includes the object's previous inventory number(s) under the unit *Artifact number*. For instance, objects accessioned from archaeological storerooms often have accession numbers associated to a site or excavation. These numbers are also linked in the database. As for objects accessioned from the Egyptian Museum in Cairo, they often carry previous museum inventory numbers. These might include the Journal d'entrée JE, Catalogue General CG, Special Number SR, and the Temporary Number TR number (fig.2) (Rashed and Bdr-El-Din 2018, 43f). In 2021, after the development of the narratives for the King Tutankhamun's galleries, an additional curatorial unit was added to this module under the title, "Object label". This is where object labelling can be associated with each record. In addition, each record is linked with its archival record in the Griffith Institute database via a hyperlink: <http://www.griffith.ox.ac.uk/discoveringTut/>.

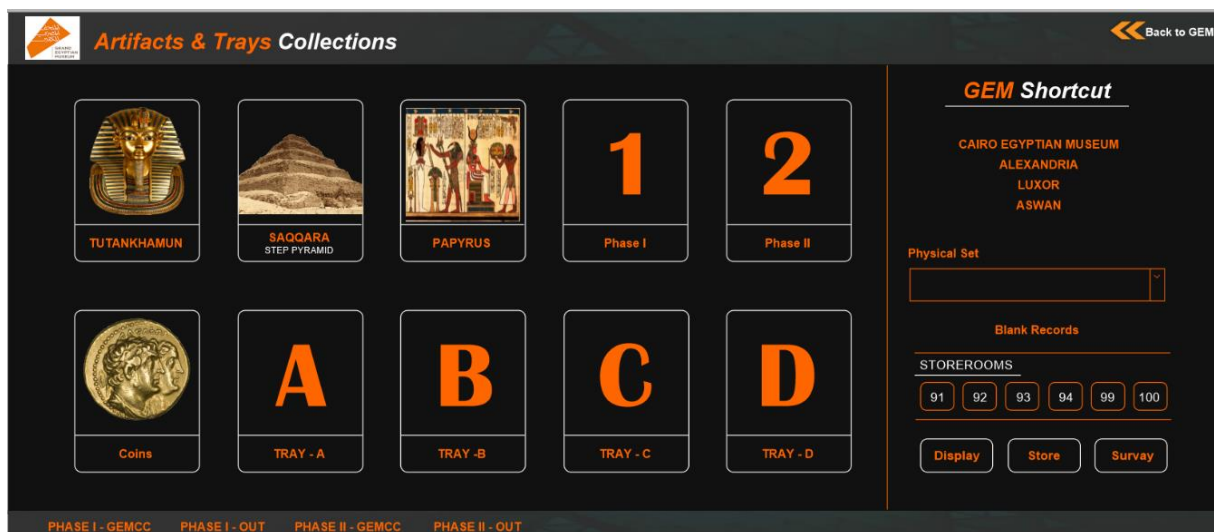


Fig. 2: Major interface of the GEM database. (© The Grand Egyptian Museum)

To ensure the complete identification of an artifact, it is necessary to provide the Physical Module with physical features in the documentation records. The type of physical information recorded will be, the type of material, whether organic, or non-organic, a manufactured material, or composite material, in addition to the object's dimensions, and weight. Such information is also essential for the development of the exhibition. The Exhibition Module, identifies the exhibition storyline context and narratives associated with artifacts, starting with the main theme and ending with the sub-theme. This module also explains the position of each object within the storyline and its level of importance. By identifying the showcase location and ID number, you can track the artifact within the gallery.

### 1.2 The GEM's Database Manuals

At the beginning of the Collection Management System (CMS) in 2008, it was of crucial importance and priority for a database to be developed that standardized the documentation and registration procedures to ensure efficiency and accuracy of the documentation practices. To this end, four manuals have been developed to help the GEM registrars.

- The first manual: *Guide for the database user/ file maker system*. This manual outlines how to use the file maker system, general regulations before, during, and after the site work. In addition, the manual provides definitions of the different documents which will be provided by

the CMS artifact list, inventory sheet, artifact sheet, identification list, and artifact report (GEM 2008).

- The second manual: *The manual for Measurements*. This manual addresses the criteria for measuring different artifacts with different shapes and features, preparations, and techniques used in measuring objects (GEM-Manual, The manual for Measurements 2008).
- The third manual: *Photo guide*. This manual outlines the photography criteria for the object position, lighting, and preparations at the site, in addition to camera settings for the best and most accurate results (GEM-Manual, Photo guide 2008).
- The fourth manual: *A data Entry Manual*. This manual outlines the data entry and data clean-up processes. It provides basic guidance, that the database members should conform to.

The last modification to these manuals was carried out in 2012. Since then, there have not been any updates to these manuals, and they have not been in use since 2015. The manuals for measuring and photographing are relatively good as they provide consistent and unchanging guidelines for measuring and photographing museum artifacts. While the manual for the data entry and clean-up contains many gaps that led over time to degradation in the quality of the archaeological content in the GEM's database, the most important of which was the description unit. (GEM-Manual 2008)

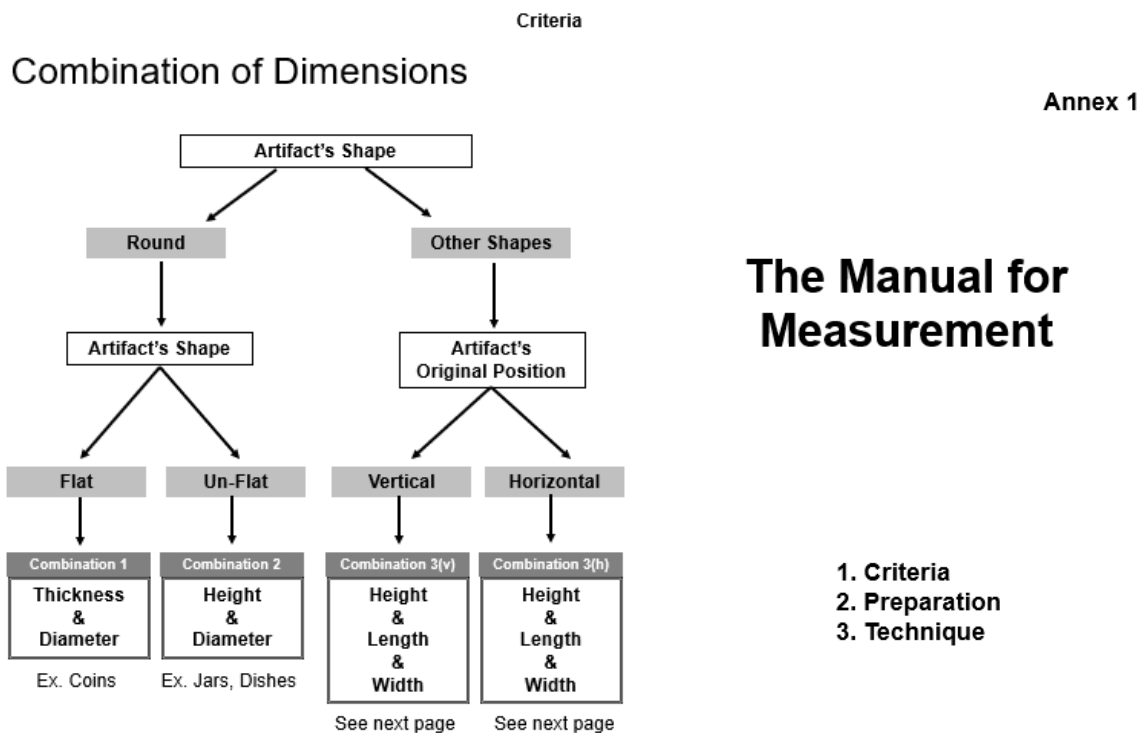


Fig. 3: The measurement manuals of the GEM database (© The Grand Egyptian Museum)

## 2. The GEM Collection Management Policy

Museum collections are held in trust for public and made accessible for the public's service. Museums are expected to adopt the highest legal, ethical, and professional standards. To maintain these standards, museums should develop a collections management policy that explains the scope of their collections. This policy outlines how the museum cares for and makes its collections accessible to the public. It clearly determines the roles of the partners responsible for managing the museum's collections. (Simmons, John E. 2020, 28)



A collections management policy is a fundamental document that supports the core standards of collection stewardship. The policy helps the museum demonstrate its commitment to professional and ethical standards and best practice. It also enables the governing authority to meet its legal obligations to preserve and provide access to public trust collections. (Simmons, J.E. 2018, 12)

Based on the author's work at the GEM, interviews conducted, and an investigation into the GEM database, the museum has yet to adopt a formal collection management policy. As a result, the documentation and data management of the collection lack a standardized structure, leading to inconsistencies and gaps in the database. This lack of uniformity impacts both the quality and reliability of the collection data, hindering scholarly research and limiting the potential for diverse, nuanced interpretations of the museum's objects. These deficiencies became particularly apparent in 2018, when the curatorial staff and designers relied on the existing data for the development of Phase I of the GEM, which included the Tutankhamun Gallery and the Grand Staircase. This phase involved critical tasks such as the fabrication of display cases, artifact mounts, and the creation of graphic designs for the galleries, all of which were impacted by the inconsistencies in the collection data.

### 3. GEM's Challenges

Despite recent technological advancements in documentation, practical concerns continue to emerge regarding the current acquisition, documentation practices, and the quality of data at the GEM. There is an urgent need for a unified approach that aligns with modern post-structuralist discussions and explores the relationship between museum collections, knowledge-making, and how the existing collection data can be revised and enriched in this context. Consequently, two critical questions arise:

1. Does the GEM's Collection Management System (CMS) adequately meet the needs of both present and future users, including online audiences? This includes evaluating the database's structure and functionality.
2. Does the documented information meet the required quality standards for users and their expectations?

In this section, we address these ongoing challenges, exploring the implications for object information and user access to the GEM-CMS. This involves profiling various user groups, understanding their goals and motivations, and assessing how the current and future state of documentation data aligns with the needs for knowledge-making, interpretation, and scholarly inquiry. Additionally, we will examine the potential of utilizing this data to foster deeper engagement and understanding, while considering the evolving content options driven by emerging technological advancements and new knowledge paradigms.

### 3.1 The GEM-CMS Users

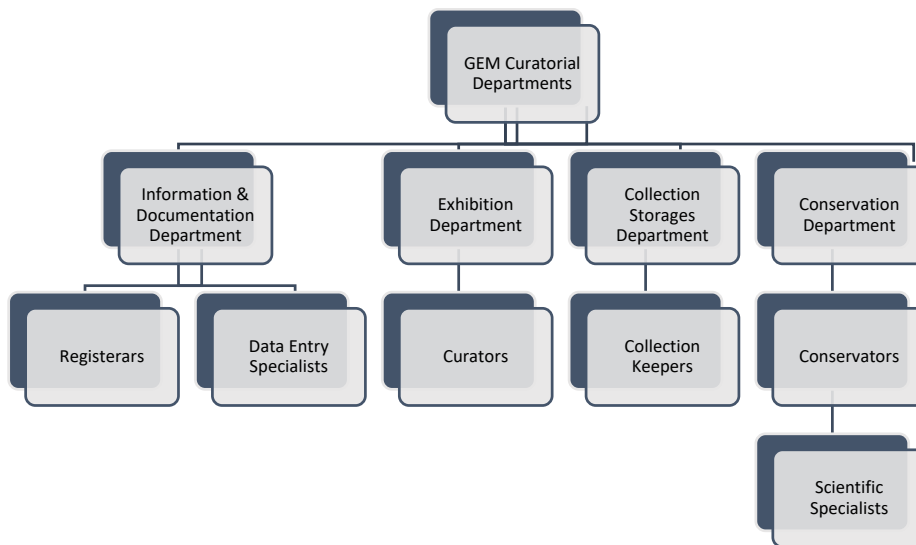


Chart 1: The GEM's Curatorial department.

According to the study, users exhibited varying motivations, reflecting the diversity in their goals and objectives.

#### 3.1.1 Data Producers

- 1- Registrars: These are the document-focused staff members responsible for the accurate documentation, record development, and collection of information related to cultural objects (Buck, R. 2010, 8). At the GEM, registrars play a key role in developing the collection's information for inclusion in the museum's catalogues and registry books. They are also involved in the selection process for new acquisitions.
- 2- Database specialists: These professionals manage the GEM's database system. Their responsibilities include documenting and collecting data from official register books, as well as processing official documents. As the primary custodians of the database, they are the only staff authorized to enter data, generate reports, modify records, and perform data clean-up tasks within the system. However, this centralized approach has created barriers between the database and its users, restricting access to, updates of, and opportunities for data cleaning. As a result, there are notable deficiencies in the quality, context, and type of data, which negatively affect search functionality. Additionally, the system contains inaccuracies and critical information gaps regarding some of the museum's collections.

#### 3.1.2 Data Users

- 1- Museum curators and educators: The curatorial staff at the GEM plays a critical role in shaping exhibition concepts, crafting narratives, and organizing content both within the galleries and for future online platforms. They are also involved in the strategic allocation and distribution of artifacts in the galleries. Consequently, the motivation of curators is centered around the identification of artifacts, often through comparisons with similar pieces, and engaging in discussions about potential acquisitions (Golding, Viv, and Wayne M., eds. 2013, 18-19). Curators at GEM have stressed that the museum's database should be enhanced to improve collection identification, facilitate access to the collections, and offer efficient methods for addressing inquiries about the objects.

A key issue identified was the urgent need to resolve the duplication of object records, a result of a 2016 decision to separate "Mother" records from their associated "Child" records. Prior to this change, a collection of 500 objects, for example, would have been



registered under a single GEM number (0000), with subsequent records assigned numbers 0000.1, 0000.2, up to 0000.500. However, following the separation of these records in 2016, thousands of duplicate entries were created, significantly impacting the accuracy and integrity of the data. Additionally, curators highlighted the need to improve data quality and search functionality.

This improvement involves implementing faster, more intuitive search mechanisms to streamline the identification of collections and completion of curatorial tasks. Curators expressed a preference for using a thesaurus, organized by classification, type, and object title, to facilitate easier database browsing. Research also pointed to the necessity of developing more sophisticated search schemas, structured searches, and intelligent browsing mechanisms, similar to those in use at renowned institutions like the British Museum ("Collection Index+") and the Metropolitan Museum of Art ("TMS") (Carpinone, Elana C. 2010, 34). Such enhancements would allow for the creation of thematic relationships between artifacts, topics, and database modules, improving the overall search experience.

- 2- Collection keepers: They are responsible for inventory, collection care, storage, and collection transportation. Accordingly, their daily use of the database is to track, locate, and identify objects. The GEM's curatorial staff emphasized the urgent need to increase search tool functionality, as well as content accuracy (4. Interviewee 2022). This includes enhancements such as providing zoomable thumbnail images, links to scientific resources, collection condition reports, copyright information, and data on objects displayed in exhibitions. Additionally, the inclusion of Arabic language translations is essential for broader accessibility.

### 3.2 Considerations for The GEM-CMS

Based on the interviews and questionnaires, the interviewed group shared several concerns and observations, which can be summarized as follows:

#### A. Lack of Clear Criteria for Data Creation:

The absence of standardized criteria for data creation within the description unit has had a significant impact on the accuracy of archaeological content (see Figures 2-4). This issue manifests in inconsistencies in the number of words, the approach to interpretation, and the overall structure of the information. Such discrepancies are particularly noticeable when interpreting and documenting identical objects, where variation in documentation can lead to confusion and inaccuracies.

Currently, exhibition development, scholarly requests, and educational programs all require knowledge paradigms that offer academic rigor and historical narratives. A prime example of a museum with well-established guidelines for documentation is the Metropolitan Museum of Art (MET), which follows strict documentation and interpretation criteria grounded in scientific methodologies (Figure 7 shows the record of bibliographies for the MET object no. 25030202a.b). The MET's approach involves a comprehensive structure that includes a full identification and description of collection objects, ensuring their polysemic nature is understood and their original context is preserved. This methodical structure extends not only to the documentation of the Egyptian collection but also integrates scientific references and archival materials to enhance the accuracy and depth of interpretation. (Kamrin 2022).

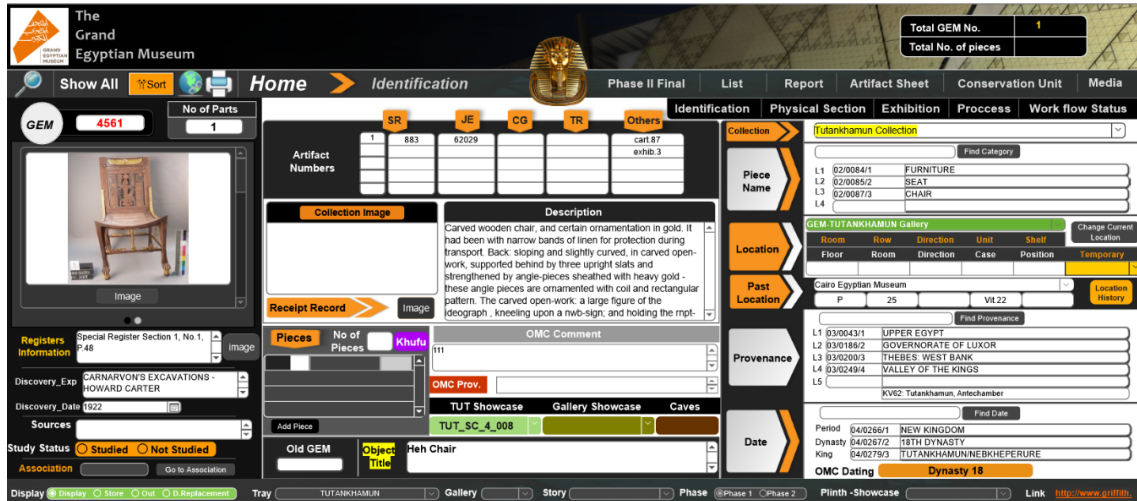


Fig 4: An example for the collected data from an item in the collections of king Tutankhamun. (© The Grand Egyptian Museum)

Date	Text Type	Purpose	Status	Author	Text
Nov-21-2017	Online Publication		(not assigned)	Janice Kamrin	Ankhshepenwepet's inner coffin is of a new type introduced in Dynasty 25 (Taylor 2003, wrapped legs indicated through subtle modeling of the body; it stands on a short base.)
2010	Web Label		For CRD	Catharine H. Roehrig	The Singer of the Residence of Amun, Ankhshepenwepet, was buried in a tomb within the inner coffin of Ankhshepenwepet has a new shape which was developed during Dy

Fig. 5: Collected bibliography and literature linked to the inventory no 25.3.202a, b. (© The Metropolitan Museum of Art)

**Edit Text**

The Singer of the Residence of Amun, Ankhshepenwepet, was buried in a tomb within the precinct of Hatshepsut's temple in Deir el-Bahri. The burial was plundered and no traces were left of her mummy, which would have been placed in the inner coffin.

The inner coffin of Ankhshepenwepet has a new shape which was developed during Dynasty 25. It is broader, with square shoulders and an over-sized head. On her head she wears a lappet wig (the hair painted blue), and a vulture headdress formerly worn by only queens and goddesses. The decoration on the lid includes the scene of the weighing of the heart from the Book of the Dead, and below it, for the first time on coffins, the mummy is depicted. It lies on an embalmer's bed and a ba-bird, symbolizing Ankhshepenwepet's spirit, hovers above it (see detail photo). Beneath the bed are two groups of objects; four canopic jars and four viscera bundles (containing the internal organs). The fact that the bundles are depicted suggests that the jars are "dummy" canopic jars, like the ones in Ankhshepenwepet's tomb (25.3.205a-d).]

Fig. 6: A brief description for the object no 25.3.202a-b accessed on the online platform. (© The Metropolitan Museum of Art)

The incorrectness and inaccuracy of some archaeological content in the description unit have diminished the museum collection's role as a primary storyteller. This misrepresentation prevents visitors from forming meaningful, tangible, or intangible connections with the objects. For museum collections to fulfill their educational and emotional potential, it is essential that their identity is accurately presented and strengthened through rigorous scientific research. This process must involve access to the latest findings, drawing from both contemporary scholarship and the experiences of international museums in interpreting ancient Egyptian collections.

An example of this can be seen in object no. GEM 37062, SR7 21264, which is an ostrakon currently registered in the GEM system as a vase under the object title 'Ovoid pottery jar' (fig. 7). The misclassification of this object underscores the need for continual updating and accurate interpretation to maintain the integrity of the collection and its ability to engage visitors meaningfully. Accurate and informed research is key to preserving the authenticity and significance of each piece in the collection, ensuring it remains a relevant and powerful tool for storytelling.

The screenshot displays the GEM 37062 data entry and database interface. The interface is organized into several sections:

- Top Bar:** Shows the Grand Egyptian Museum logo and navigation tabs: Home, Identification, Collections, List, Report, Artifact Sheet, Conservation Unit, ATB.
- Summary:** Total GEM No. 1, Total No. of pieces 1.
- Identification Section:** Includes fields for SR (21264), JE (56877), CG, TR, and Others. It also shows artifact numbers and a collection image.
- Physical Section:** Contains fields for Object Title (Ovoid pottery jar), Piece Name (RECEPTACLE/VESSEL), and Location (Cairo Egyptian Museum).
- Exhibition Section:** Includes fields for Object Title, Piece Name, and Location.
- Process Section:** Includes fields for Object Title, Piece Name, and Location.
- Work flow Status Section:** Includes fields for Object Title, Piece Name, and Location.
- Registers Information:** Includes fields for Discovery\_Exp, Discovery Date, and Sources.
- Pieces Section:** Includes fields for Object Label (EN, AR, JP) and Physical Set.
- Provenance Section:** Includes fields for L1 (UPPER EGYPT), L2 (GOVERNORATE OF CAIRO), L3 (TURA EL-ASMANT), L4, and L5.
- Date Section:** Includes fields for Period (EARLY DYNASTIC PERIOD/THINITE PERIOD), Dynasty (2ND DYNASTY), King, and OMC Dating (Dyn 2).

Fig. 7: An example for data entry and database interface: GEM 37062. (© The Grand Egyptian Museum)

Therefore, conducting an accurate assessment and survey of the status of collections classification, along with an academic clean-up, is urgent. This process should focus on establishing clear definitions for objects, including their nature, classification, and provenance. A museum's assessment and improvement of data quality are critical to delivering reliable and precise information to both internal and external stakeholders. For example, the Metropolitan Museum of Art (MET) faced significant challenges due to inconsistent data and the duplication of records after consolidating all its databases into a single system. The solution to these issues was implemented through a comprehensive "clean-up" task, which involved correction and modification procedures. (Kamrin 2022)

The clean-up task is a critical reviewing process for the object data entered into the TMS (The Museum System), which includes but is not limited to reviewing and correcting key information such as the object's accession number, material, previous and home location, as well as updating the object description. Additionally, the process involves checking and, if necessary, re-photographing objects whose images are outdated or in black and white.

One of the most pivotal roles of the clean-up task within the TMS is the identification and removal of duplicate accession numbers across the entire museum collection. For example, the MET faced a challenge with an estimated 20,000 objects that had duplicate accession numbers, all of which required correction. This clean-up effort is essential for maintaining the accuracy and integrity of the collection's data, ensuring that each object is properly cataloged and easily accessible for future research and exhibition planning. (Choi 2022)

There is a significant lack of information and context for objects that are no longer associated with their Inventory/Accession numbers due to the loss of identification. Many artifacts have lost their archaeological context, acquisition history, and dating because of missing inventory records and excavation archives. As a result, determining their full archaeological history has become increasingly difficult. These cases require considerable effort to retrieve and reconstruct their context, which may involve conducting more in-depth research and surveys. Additionally, substantial comparisons with records from similar objects and their related publications are necessary to piece together the missing information. This process is essential not only for restoring the integrity of these objects' histories but also for ensuring that the museum can accurately present them to the public and academic community, preserving their value as historical artifacts. (Rashed 2017, 4). It is also recommended to consider collaboration with other museums that hold collections from shared archaeological contexts, such as the

Mesehti collection and the Bab el-Gasus collection. By working together, the GEM and these institutions can pool resources, share expertise, and exchange data to reconstruct the lost or fragmented historical and archaeological contexts of these objects. Collaborative efforts like this can help to bridge gaps in provenance, acquisition history, and excavation details, facilitating a more comprehensive understanding of the artifacts. Such partnerships can also enhance the accuracy of interpretation, enrich exhibition narratives, and promote a more complete scholarly study of the collections, benefiting both the museums involved and the broader academic community.

D. Exhibition development is hindered by the absence of associated information and contexts, making it difficult to place these objects within the museum's storyline and exhibitions when critical information is missing. Without complete and accurate data, it becomes a challenge to present these objects in a meaningful way that aligns with the museum's narrative and educational goals. To address this, a physical survey of the objects is necessary to fill in the gaps. The survey should include the verification of key details such as the object's dating, provenance, and current location. Additionally, the process should involve professional photography that adheres to international standards, accurate measurements, weight calculations, material identification, and a detailed assessment of the object's current condition. Furthermore, the survey should consider the object's mounting requirements and provide a footprint for exhibition needs. This comprehensive approach will ensure that the objects are appropriately documented, handled, and displayed, enabling them to be better integrated into future exhibitions while preserving their integrity and historical significance (Tawfik, Tarek S., Zgouleta E. and Chaitas Ch. 2018).

E. The review of object records on typology and object name revealed that there were some records classified as "unknown" and "unspecified". These records are recommended to be of priority in terms of archaeological research and modification, and curatorial analysis, including terms of conservation, which would help in the determination of the object's nature, typology and archaeological context. Remarkably, the GEM collections obtained from other Egyptian museums have only been classified at the first level in one of the categories. Therefore, criteria should be set to help determine the differentiation in categories necessary.

#### **4. Potential Chances**

How can the potential of the GEM's collection and content be realized for digital collections? What kind of knowledge environments are required? What are the implications for data modification and digital documentation practices in the GEM?

##### **4.1 New Knowledge Paradigms**

Robinson and Cameron, argue that the shift of museum databases from documentation tools to an effective knowledge environment starts at the documentation process level (Robinson, H., and F. R. Cameron. 2003). Databases are the starting point for museums to identify and interpret their objects. Moreover, the method of acquisition and documentation determines how current and future users/generations understand it. Accordingly, a wider disciplinary collections documentation context becomes necessary to revise current documentation structures at the GEM in line with the evolving knowledge structures, as well as curator attitudes toward interpreting objects as cultural evidence. Drawing on observations and interviews from the Metropolitan Museum CMS and TMS, the following considerations have been determined as critical to the transformative process of the new knowledge paradigms.

- a- The emergence of new technologies and the opportunities they offer in extending the interpretive and research potentials of museum collections, and the investment in the digitization of objects can be reused and configured into new associations to their archaeological and social context (Choi 2022).
- b- The critical analysis of existing information resources and how they may contribute to object data, acquisition policies, documentation practices, and interpretive paradigms, and the ways they can be modified and updated to meet evolving information needs (Kamrin 2022).
- c- The evolving trends in learning theory and the contemporary knowledge-making approaches and the potential they provide in documenting museum collections, and the most effective ways to reconcile multidiscipline-based documentation and interpretive practices.
- d- Models of information required for museum interior use and for diverse user groups of the database and how these can be encompassed into the acquisition and documentation practices.
- e- By promoting the museum and its online collections, more people will visit the museum, will generate revenue for the museum (Dienes 2022).

Significantly, these considerations have an effective impact on documentation procedures and the ways in which information about the museum's collection is collected. This includes the type and quality of this information and leads to more practical concerns about how collection knowledge is generated. It also has implications for the roles and tasks of databases, and the curatorial staff.

#### **4.2 Developing the Recorded Data**

The creation of new knowledge environment paradigms requires considering how information such as fielded data can be structured and coded in new ways. Equally important is considering the way museums can maximize the use of existing data through cross-linking and filtering options to different collection records. This strategy works to develop the interpretive potential of collections (Moreno 2019, 90). This in addition to the urgent need for developing the thesauri, glossaries, and nomenclatures of the database, which will help solve the conceptual structure and naming problems within the database. Therefore, these problems need to be solved by ensuring greater enrichment of data means. Most basically, this needs to occur during the documentation process itself to create a wide scope of search functionality, naming, and browsing options thus contributing to, and expanding interpretive capabilities (Horan 2013).

#### **4.3 Statement of Significance**

Modern documentation practice over the last decade has seen a trend away from a long description of the artifact's materiality towards a statement of significance which is a reasoned, readable summary of the values and meanings of an object using the objective descriptive data. Interestingly, this trend represents a shift in documentation from the prevailing empirical tradition based on the materiality of things (Russell 2001, 12). Significance defines the meanings, tangible and intangible values of an object or collection for people and communities through research, analysis, and assessment following a standard set of guidelines. Significance is an approach to defining the associated stories about objects and explaining why they are of significance. Therefore, significance may also be defined as the aesthetic, scientific, historical, artistic, and spiritual or social attributes that collections hold from past generations to present and future generations (Fredheim 2016, 470).



An example of drafting a catalogue description with Statement of significance, the Metropolitan Museum of Art

**Title:** Chair of Reniseneb  
**Period:** New Kingdom  
**Dynasty:** Dynasty 18  
**Date:** ca. 1450 B.C.  
**Geography:** From Egypt, Upper Egypt, Thebes  
**Medium:** Wood, ebony, ivory  
**Dimensions:** h. 86.2 cm (33 15/16 in)  
**Credit Line:** Purchase, Patricia R. Lassalle Gift, 1968  
**Accession Number:** 68.58

❖ **Statement of Significance**

The back of this wooden chair, which belonged to the scribe Reniseneb, is handsomely veneered with ivory and embellished with incised decoration showing the owner seated on a chair of identical form. It is the earliest surviving chair with such a representation, and it is the only non-royal example known. The scene and accompanying text have funerary import and may have been added following Renyseneb's death to make the chair a more suitable funerary object. The high quality of its joinery and the harmony of its proportions testify to the skill of ancient Egyptian carpenters. The mesh seat has been restored following ancient modles.



Fig. 8: Drafting a catalogue description with a statement of significance. The Metropolitan Museum collection. (© The Metropolitan Museum of Art)

#### 4.3.1 The Collection's Significant Key Values

Significance assessment goes beyond the traditional cataloguing and description to addressing why and how the artifact is important and what it means (Jones 2018, 8). The results of the assessment are addressed in a statement of significance, which is a summary of the important values and meaning of the artifact. The assessment process would help collection managers and curators inside the GEM make logical perceptions and interpretations about the importance of museum objects and their values for communities. This in turn will enable the GEM to manage collections and safeguard their significance making their stories accessible to a wide range of museum users (Fredheim 2016, 472).

Significance assessment is not the result, but a process that paves the way for the good management of collections (Russell, R. and Kylie W. 2009, 22). Drafting the statement of significance can help to consider policies, modifications, and recommendations to improve the management and care of the museum collection. This can include provision for the collection policy, modifying actions regarding storage, conservation policy, further research, and actions that might be built into the organization's strategic plan. Monitoring and reviewing work resulting from the assessment can be achieved by referring to the statement of significance (Russell 2001, 10).



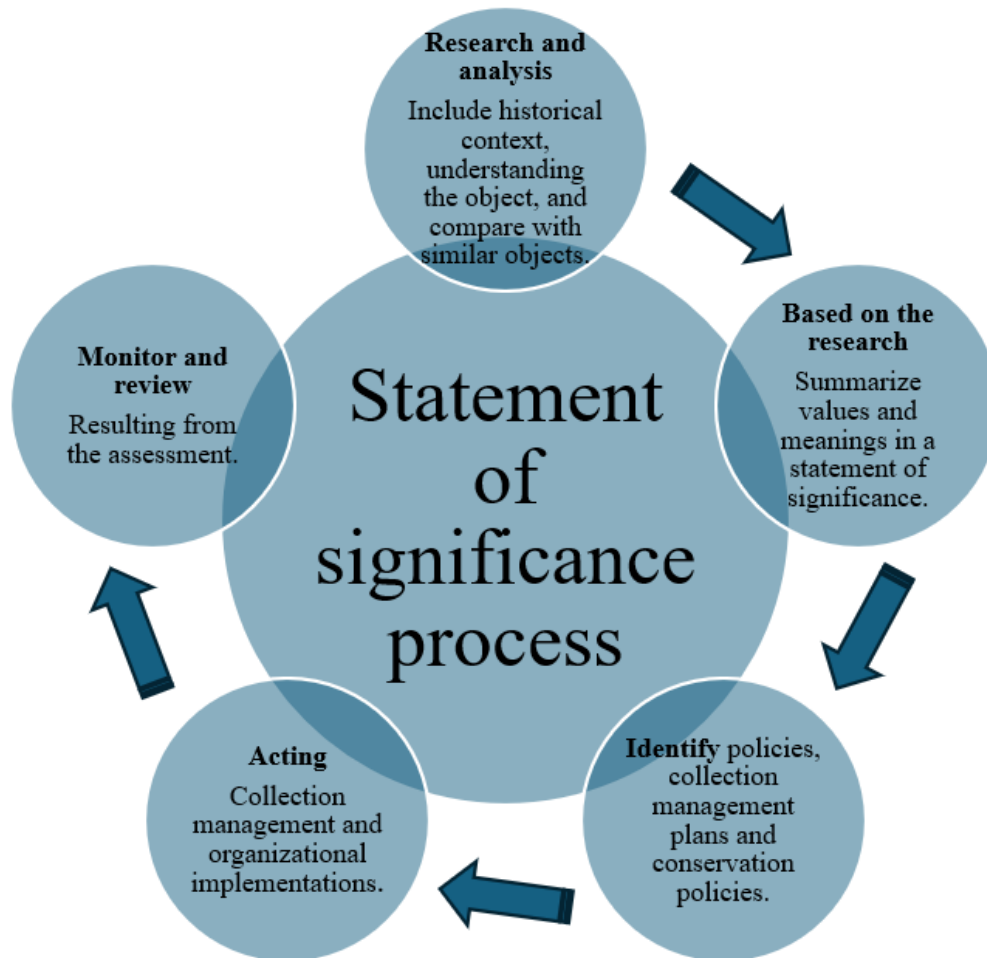


Chart 2: Statement of significance process.

The Collections Council of Australia in its national publication *Significance 0.2*, defined four primary key criteria that help to understand and identify the object or collection values and meanings. In addition, five comparative criteria were created to help evaluate the significance degree, and support or modify the primary criteria (Russell, R. and Kylie W. 2009, 22):

- 1- Historical importance using contextual or historical information for an object or collection, can be determined by answering a set of questions regarding the artifact's connection to an individual, community, or event, and whether the object tells us important information about a historical period, place or theme.
- 2- Aesthetic significance can be defined by using the physical information of the object by answering two questions: Is the object well designed, handcrafted, or man-made? Is the object authentic or innovative?
- 3- Scientific, technical, or research significance can be determined using historical and contextual information by answering; Do the researchers have an interest in this object? Which attributes about this object comprise scientific or research value or interest?
- 4- Social or spiritual significance can be defined using historical and contextual information by answering questions such as, is this object of exceptional value to a community or group? How is this value demonstrated? Has the museum consulted the community about the importance of this object to them? (Russell, R. and Kylie W. 2009)

Often, museums set criteria for object classification in their strategic development plans, and in the Collection Management Policy (CMP). In the first case, it is essential to understand the value of the collection and its uniqueness. In the CMP, the museum might use these criteria to define the importance of each object and thus all relevant decisions in case of, use, exhibit, investigate, etc. This criterion is also vital for acquisition and exhibition. The collection/acquisition policy should clarify the museum criteria. In the case of the V&A Museum CMP, the museum state clear criterion to define the importance and value of objects that the museum collect as follows:

*“The V&A collects objects illustrating and documenting the history of art and design as exemplified in, amongst others, the fields of ... (V&A-CMP 2009, 6 (section 4.1.1)) To qualify for inclusion in the collections an object must also meet at least one of the following criteria: Aesthetic, technical, historical, documentary, competition of objects. (V&A CMP section 4.2.2)” (V&A-CMP 2009, 6-7 (section 4..2.2))*

The GEM follows a similar approach by classifying the objects on display into two classifications:

- 1- *Star Object*, which is based on artistic and aesthetic features. Remarkably beautiful and important objects that catch the attention and curiosity of the visitor. It represents creative innovation and authenticity, or a high level of craftsmanship and skills in the fabric(s). This classification had been applied to certain items from Tutankhamun's collection, the golden mask GEM No. 8, the golden throne GEM No. 4573, his golden Canopic shrine GEM No. 9, and the king's outer coffin GEM No. 7590 (7. Interviewee 2023).
- 2- *Lead Object*, which demonstrates a particular era, or identity of a group of people or specific community in ancient Egypt. An object that leads associated objects within a particular storyline or theme. Objects in this category are the ceremonial palette GEM No. 609, which dates to the Naqada III period. This important object leads the Kingship theme revealing the pre-establishment of Kingship and dynasties in ancient Egypt (7. Interviewee 2023).

#### 4.3.2 The Five Comparative Criteria

- 1- *Provenance* can be defined using provenance information to answer inquiries about the object's source, production, origin, and ownership. Are the objects well documented? Does the museum have information such as the object's maker, owner, and how it was used? Also, when, and by whom?
- 2- *Rarity* can be defined using historical and contextual information to explain if the object is exceptional or unique. Does the object have distinctive features that characterizes it over similar objects?
- 3- *Representativeness* can be defined using historical and contextual information. Is the object a characteristic example, or typical of its type?
- 4- *Object condition*, or completeness can be defined using the physical information in the physical description and the condition section within the database to establish whether the object is in exceptional condition for its type? Is it exceptionally complete or intact? Does the object show proof of use or restoration? Is the object still functional? Is the object unrestored or in original condition?
- 5- *Interpretive capability* is defined by the object's relevance to the museum's mission and interpretation priorities. It is also defined by its relation to other objects in the collection. This could be determined using subjects and topics to identify similar themes in the museum collection. It could also be determined

through the filtration tab in the database. This will show the connections between objects and their stories (Russell, R. and Kylie W. 2009).

The British Museum applies these criteria to highlight the various characteristics of its collection. For example, the Rosetta stone EA24 encompasses criteria 1, 3, and 5. While on permanent display in the Egyptian sculpture gallery, the stone reveals the Provenance and Representativeness criteria (British Museum n.d.). In the temporary exhibition Hieroglyphs: unlocking ancient Egypt, the stone reveals the interpretive and rarity criteria (Regulski 2022, 65-75, 90, 229-33, 236-41).

The importance of applying an assessment and statement of the significance of an object or collection represents the capability and potential to provide a framework for GEM collection managers, specialists, keepers, and curators. They can make consistent decisions in the interest of managing the museum collections and determine the key messages that the museum would like to deliver to audiences. Most importantly, including the statement of significance in the catalogue ensures the object is documented and stored centrally. Ultimately, it informs collection management decision-making.

### **3. Promoting the Plurality of Object Meaning**

The GEM needs to benefit from plurality abilities and meaning inherent in its objects and collection, rather than providing one interpretation. Postmodernist principles argue that an object's meaning and classification are imposed on the object by many influences after its transportation to the museum (Cameron F. R. & S Kenderdine 2001). The GEM needs to rethink the association and meaning of collections in parallel with the understanding of the barriers of current knowledge-making approaches.

The artifact's potential meaning and interpretation possibilities are narrowed by the specific conceptual and disciplinary frameworks of anthropology, social and art history, decorative arts, and institutional practices, as well as the individual perspectives of museum collection managers, keepers, and curators. This approach restricted the types and quality of documented information about the artifacts. The types of information documented in the statement of significance are then limited and the subsequent meanings and values associated with individual objects or collections, ultimately limiting their potential interpretation (Marty P. F. 1999). For example, an Egyptologist may focus on the historical and provenance context significance of the object, and a conservator may focus on the material and condition significance. In contrast, a decorative arts curator may note its form, decorative motifs, and technique or how it fits into a chronological artistic characteristic that reflects the artistic qualities of a specific era or dynasty, or the artist/maker. A museum educator may look at the same object in terms of how it is manufactured, its social or spiritual value, and its function in a specific community. In contrast, a technology curator may focus on the object's degree of technology, innovation, function, and how it was used.

The task of object interpretation is an organic and dialogic process where various perceptions come into the description and intermingle. Curators cast interpretations from different backgrounds and some objects have more to offer.

Although many of the GEM curators involved in documentation and museum display interviewed by the author were unfamiliar with the current discursive contexts of the museum's collections, they appreciated the advantages of other disciplinary interpretive frameworks and experimented with incorporating themes into exhibitions. This process was extraordinarily complex to apply to documentation due to the practical and theoretical limitations imposed on documentation processes. Therefore, reconciling these collections needs information, reviewing the types of questions asked about collections regarding the statement of

significance, contributing to their broader understanding, and creating a useful resource. This may include collaboration between different museum departments involved in documenting, studying, and interpreting artifacts to discuss potential meanings, and writing statements of common interest to expose a range of values and opinions across the object's disciplinary areas. Procedurally, this involves setting frameworks together while expanding the possible meanings and values of artifacts.

## Conclusion

The Grand Egyptian Museum (GEM) houses thousands of ancient Egyptian artifacts, including the world heritage collection of King Tutankhamen. The museum's purpose is to showcase the rich history and heritage of ancient Egypt. However, there are some concerns about the current documentation practices and data quality within the museum. There is also a pressing need to address how the museum collection and its information aligns with modern discussions and developments in the field of study, and how it contributes to our understanding of ancient Egyptian history and culture.

The GEM currently faces the following challenges that affect documentation and data quality:

- 1- The centralization of access and modification of the GEM collection management system to particular museum staff. A more flexible approach could improve system accessibility and streamline operations.
- 2- The lack of a Collection Management such a policy would provide essential guidance and structure for managing the collection, ensuring consistent documentation practices, and supporting content development and writing.
- 3- Inaccurate information that requires huge efforts of academic and scientific research to revise and clean up. This ongoing effort is resource-intensive and could be mitigated with more robust documentation standards and verification processes.
- 4- Limitations of FileMaker as a Collection Management System: The current system, FileMaker, shows functionality weaknesses compared to more advanced and widely used collection management systems like The Museum System (TMS), employed by leading institutions such as the Metropolitan Museum of Art.

The GEM collection has experienced significant challenges regarding the accuracy and completeness of its documentation, which is essential for preserving the historical significance and value of its artifacts. This issue has resulted in gaps in key information, including the archaeological context, acquisition details, and the broader historical narrative surrounding the artifacts. To address these shortcomings, it is imperative to assess and improve the GEM documentation system, practices, and overall information quality through a comprehensive curatorial and academic evaluation. By bridging the gap between theoretical frameworks and practical implementation among curatorial staff, this paper aims to provide valuable insights for enhancing GEM's documentation processes. These improvements will not only facilitate the digital preservation and protection of the collection but also safeguard critical information, ensuring the prevention of loss or theft.

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**BIBLIOGRAPHY:**

- Alexander, P., Mary A., and Juilee D. 2017. *Museums in Motion: An Introduction to the History and Functions of Museums*. Lanham: Rowman & Littlefield.
- Bakogianni, S. 2006. "Collection Documentation Practices: A Critical Perspective (SPECTRUM 1995)." *International conference EVA*. London. 1-11.
- Bakogianni, S., Evangela K., and Alexandra B. 2004. "Objects from the past, narratives for the present." *Journal of Muzeologija* 41/42 113-122.
- British Museum, The. n.d. *The Rosetta Stone*. Accessed June 5, 2023. [https://www.britishmuseum.org/collection/object/Y\\_EA24](https://www.britishmuseum.org/collection/object/Y_EA24).
- Buck, R. 2010. "History of registration." In *Museum Registration Methods*, by edited by Rebecca Buck and J. A. Gilmor. 5th ed, 2-11. Washington, DC: American Association of Museums.
- Cameron F. R. & S Kenderdine. 2001. *Themescaping Virtual Collections: Accessing and Interpreting Museum Collections Online, unpub. mans*. Sydney: University of Sydney and the Powerhouse Museum, Australia.
- Carpinone, Elana C. 2010. "Museum collections management systems: one size does not fit all." *Seton Hall University Dissertations and Theses (ETDs)* 1-158.
- Choi, Choi Jennie, interview by The Author. 2022. *General Manager of Collection Information, the Metropolitan Museum of Art* (October).
- Dienes, Claire, interview by The Author. 2022. *Manager of Digital Asset Management The Metropolitan Museum of Art* (October).
- Fredheim, L. Harald, and M. Khalaf. ". 2016. "The significance of values: heritage value typologies re-examined." *International Journal of Heritage Studies* 22, no. 6 466-481.
- GEM. 2008. "Guide for the database user/ file maker system (official document)."
- GEM-Manual. 2008. "GEM data entry Manual."
- GEM-Manual. 2008. "Photo guide."
- GEM-Manual. 2008. "The manual for Measurements."
- Golding, Viv, and Wayne M., eds. . 2013. *Museums and communities: Curators, collections and collaboration*. London: A&C Black .
- Grand Egyptian Museum. 2010. *Mission and Vision*. Accessed December 18, 2021. <http://gem.gov.eg/index/AboutGEM%20-Vision&Mission.htm>.
- Hawass, Zahi. 2010. *Inside the Egyptian Museum with Zahi Hawass*. Cairo: American University.
- Horan, Genevieve A. ", " Research Papers. Paper 374. (2013):.24. 2013. "Digital heritage: Digitization of museum and archival collections." *OpenSIUC Southern Illinois University Carbondale* 374.
- Hoving, Thomas. 2002. *Tutankhamun: The untold story*. New York: Rowman & Littlefield.
- ICOM, International Council for Museums. n.d. *Object ID*. Accessed May 28, 2023. <https://icom.museum/en/resources/standards-guidelines/objectid/>.
- Interviewee, 1, interview by The Author. 2022. *The former director of the Archaeological Database Department at the Grand Egyptian Museum* (January 27).
- Interviewee, 2, interview by The Author. 2022. *Curator at the Exhibition Department, the Grand Egyptian Museum* (March).
- Interviewee, 3, interview by The Author. 2022. *Educator at the Education department, the Grand Egyptian Museum* (March).
- Interviewee, 4, interview by The Author. 2022. *Collection Keeper at the Storage management Department, the Grand Egyptian Museum* (March).
- Interviewee, 5, interview by The Author. 2022. *Conservator at the Organic Lab, the Grand Egyptian Museum Conservation Center GEM CC* (March).
- Interviewee, 6, interview by The Author. 2022. *Collection Management specialist, the Grand*



- Egyptian Museum* (August).  
Interviewee, 7, interview by The Author. 2023. *Curator, the Exhibitions Department, the Grand Egyptian Museum* (May 31).
- Jones, Michael. 2018. "From Catalogues to Contextual Networks: Reconfiguring Collection Documentation in Museums." *Archives and records* 4-20.
- Kamrin, Janice, interview by The Author. 2022. *Curator, the Metropolitan Museum of Art* (September).
- Marty P. F. . 1999. "Museum Informatics and Information Infrastructures: Supporting Collaboration across Intra-Museum Boundaries." *Archives and Museum Informatics* 169- 185.
- Metropolitain, Museum The. n.d. *Scientific Research*. Accessed May 31, 2023. <https://www.metmuseum.org/about-the-met/conservation-and-scientific-research/scientific-research>.
- Moreno, Luis D. Rivero. 2019. "Museums and digital era: preserving art through databases." *Collection and Curation* (Emerald Publishing Limited) 89-93.
- Nasser, Said Mohamed, and Heba Khairy. 2024. "Digitization and the Collection Sustainability: Report on the Grand Egyptian Museum Project, Egypt." *Studies in Digital Heritage* 7, no. 2, 161-174.
- Rashed, Mohamed Gamal. 2017. "An anonymous Coffin and Cartonnage from Lahun: Retrieving the Archaeological Records." *Journal of Ancient Egyptian Interconnections* 15 2-4.
- Rashed, Mohamed Gamal. 2024. " Disposal and Deaccession at The Egyptian Museum, Cairo, *JGUA2*, volume 10, 20-44.
- Rashed, Mohamed Gamal, and Marwa Bdr-El-Din. 2018. "'Documentation, Object Recording, and the Role of Curators in the Egyptian Museum, Cairo'." *CIPEG Journal* 2: 41-63, and 15 figs. doi:<https://doi.org/10.11588/cipeg.2018.2.62861>.
- Regulski, I. (ed.). 2022. *Hieroglyphs: unlocking ancient Egypt*. London: The British Museum.
- Robinson, H., and F. R. Cameron. 2003. *Knowledge Objects: Multidisciplinary Approaches in Museum Collections Documentation*. Sydney: University of Sydney.
- Russell, R. and Kylie W. 2009. *Significance: A Guide to Assessing the Significance of Collections*. Canberra: Collection Council of Australia ATD.
- Russell, Roslyn. 2001. *Significanc: A Guide to Assessing the Significance of Cultural Heritage Objects and Collections*. Canberra: Commonwealth of Australia on behalf of the Heritage Collections Council.
- Simmons, J.E. . 2018. *Things Great and Small: Collections Management Policies, 2nd ed*. Lanham: American Alliance of Museums.
- Simmons, John E. 2020. "Collection Management Policies ." In *Museum Registration Methods, 6th edition*, by John E. Simmons and Toni M. Kiser, 24-35. Washington, DC: American Alliance for Museums .
- Tawfik, Tarek S., Zgouleta E. and Chaitas Ch. 2018. "Developing the collection's documentation for the Grand Egyptian Museum Permenant Exhibition: The Role of Its Central Management System." *CIDOC*. Heraklion, Crete, Greece: CIDOC. 1-15.
- Thornes, Robin, Peter G. Dorrell, and Henry Lie. 2000. *Introduction to Object ID: guidelines for making records that describe art, antiques, and antiquities*. Los Angeles: Getty Publications.
- V&A-CMP. 2009. "Collections Management Policy of Victoria and Albert Museum." London.
- Yerkey, A. Neil. 2004. "FileMaker Pro 7: Easy to Use Relational Database Management System." *Library & archival security* 15-27.

## نظام التوثيق الرقمي بالمتحف المصري الكبير: منهج تقييمي

### المخلص

يسهم تطبيق أفضل ممارسات التوثيق الرقمي في إبراز القيمة الملموسة وغير الملموسة للقطع الأثرية. لذلك، يتعين على المتاحف الالتزام بأفضل ممارسات التوثيق الرقمي بما يتماشى مع دور المتحف كمساحة تفاعلية يمكن أن تعزز جودة وأبعاد المعلومات المتعلقة بالقطع الأثرية المعروضة. إن ممارسات التوثيق الرقمي الجيدة لمجموعات المتحف تؤدي إلى إنشاء بيانات دقيقة وموثوقة وصحيحة، مما يضمن ويوضح المعلومات المدرجة في أنظمة التوثيق الرقمي المختلفة. بينما تسعى مجموعات المتحف المصري الكبير إلى إبراز ملامح الحضارة المصرية القديمة وتراثها في عصر المعلومات والتكنولوجيا، يواجه المتحف المصري الكبير تحديات وضغوطاً لتطوير جوانب التوثيق الرقمي لتوازي قيمة مجموعاته المتحفية. تهدف هذه الورقة إلى استكشاف بعض المشكلات الحالية التي يواجهها التوثيق الرقمي في المتحف المصري الكبير، وتقييم السبل الممكنة لتشكيل سياسات وممارسات جديدة للتوثيق الرقمي، وكذلك تطوير رؤى معاصرة حول الطرق التي يمكن من خلالها إعادة تصور التوثيق بما يتماشى مع اهتمامات إتاحة المعلومات النظرية المتعلقة بالمجموعات المتحفية والمعلومات التعليمية المرتبطة ببرامج المتحف.

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تم قبول البحث في ٢٨ أكتوبر ٢٠٢٣  
منح على الإنترنت في ١٠ يونيو ٢٠٢٤

### الكلمات الدالة

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