

The Digitization of the Photographic Archive of Museo Egizio: Strategies of Interpretation and Communication

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Abstract

The article presents the study, interpretation and organization process of the photographic archive of the Museo Egizio, Torino to support research and dissemination. Within this framework, the digitization process played a crucial role designing customized documentation and representation strategies to implement the consultation and management of the museum archive. This article highlights the role of the archive as historical memory able to communicate the transformations of methods and techniques for the documentation and representation between the XIX and the XX century. The archive provides information on the excavation process, as well as on the survey and representation tools.

This material allows a better understanding and a correct interpretation of the documents produced in a given historical period on specific buildings, by allowing the identification of interventions of restoration and reconstruction, as well as displacement and excavations. The management of the digitized archive material was implemented thanks to a dedicated software, which automated and streamlined the work. The publication of the photographic archive was achieved through the customized web platform "The Photographic Archive of Museo Egizio". In this process, the role of representation discipline has been fundamental in investigating, interpreting and communicating this rich and little-known archive, activating further knowledge processes that may enrich our understanding of cultural heritage.

Keywords: digitization, representation, interpretation, communication, archives

Introduction

The role of archives is slowly acquiring a new dimension, thanks to the digitization processes. The promotion and dissemination of an archive is relevant for researchers and specialists, as well as for the preservation of the community's memory for a better understanding of our present and future. An archive reflects the way in which people or individuals decide to organize and arrange their own production [Cencetti 1939; Pavone 1970; Valenti 2000]. This shared definition stems from the debate, that took place in the second half of the twentieth century [Duranti 2020, p. 21], concerning the meaning and structure of an archive. The result of this organization is a filtered knowledge of the past, sometimes even rather subjective (especially in private

archives) or "tampered with" [Pavone 1970], but necessary for the preservation of knowledge [1].

For Museo Egizio, the study of its own archive allowed to improve the knowledge on its collection with a wider awareness of the historical backgrounds of the museum objects, including both tangible and intangible aspects. More specifically, these aspects include the events that took place in the almost two hundred years since its foundation, the people who shaped it and the intertwined relationships with cultural, academics and political environments. The study of the photographic archive of the Museum included also its dissemination and promotion, through the support of digital tools.

The photographic archive of Museo Egizio

The Museo Egizio of Torino owns a remarkable photographic archive. It is the result of the sensibility and foresight of the directors who have succeeded one other over the time. Unfortunately, we do not know when photographs started to be used and collected in specific archives for study purpose, as we do for paper archives. The variety of materials preserved and the heterogeneity of the subjects represented in the photographic archive of Regio Museo di Antichità and Egizio, as it was called in the XIX century, suggests a random formation, due to impromptu unplanned acquisitions.

The first signs of interest for photography by the museum are reported by documents dating back to 1885, when the director at that time, Ariodante Fabretti, reported to Cavalier Luigi Cantù the realization of some shots and drawings related to the “monuments of Castelletto sopra Ticino” [2].

The photographic interest towards Egyptian monuments is documented by the activity carried out by the inspector of Museo Egizio Ridolfo Vittorio Lanzone (1834-1907). He was able to combine Egyptology with his passion for photography, employed as a work tool, as attested from some plates on glass, depicting museum antiquities [3]. The photographic archive of Museo Egizio also preserves a valuable album of fifty prints, related to Egyptian landscapes and monuments, reporting his signature.

From the beginning of the 20th century, the use of photography became systematic for Museo Egizio. This happened under the direction of Ernesto Schiaparelli (1894-1928) and then Giulio Farina (1928-1945) with the production of over 25.000 images on glass plates and then celluloid, which document moments and activities developed over the years by Museo Egizio. The awareness of the strength of photography and its use as a work tool allows us to familiarize with the archaeological activity conducted in Egypt for over thirty years, by visualizing unique images depicting the moments of some extraordinary discoveries. Additionally, the archive contains a widespread photographic campaign focusing on individual objects conserved at Museo Egizio. These photos are useful for the inventory aspects, as well as to document the status of conservation of the photographed objects. The photographic archive also

documents the changes in the museum set up and the collection displacement during the Second World War, when it was transferred to the Castle of Agliè [Moiso 2016]. Since the '60s, the archive has been enriched with over 15.000 slides, mainly in color. These slides are the result of planned photographic campaigns. Additionally, in the same years thousands of images shot in Egypt, mainly the result of private donations, were included in the archive (fig. 1).

A last section of the archive is dedicated to about 4.500 prints on paper. Many of these are related to the archaeological activity carried out by Museo Egizio. The other prints of the collection, gathered in the last century, includes nineteenth-century and twentieth-century photographs on albumin paper and may be attributed to well-known photographers such as: A.Beato, F.Bonfils, H.Béchar, G.Lekegian and the brothers C. and G. Zangaki. Unfortunately, the acquisition dates of the latter group of images are unknown [Moiso, Montonati 2021].

Until 2009, the materials of the archive were stored in different rooms of the museum. After 2009, the photographic archive of Museo Egizio was moved to the photographic archive of the Superintendence for Archaeological Heritage of Piedmont and the Egyptian Antiquities Museum. In 2016, the archive was officially passed to Museo Egizio and all the materials returned to the museum premises in 2018. All the photographic documents have been placed in a suitable air-conditioned environment in order to ensure their preservation (fig. 2).

Study, interpretation and organization of the photographic archive

The difficulties in consulting and interpreting the photographic documentation of the archive and the need to obtain fresh information and suggestions for further research, led Museo Egizio to undertake a reflection on the study and the reorganization of archival materials. One of the first conclusions was the need to digitalize the entire archive and to identify the subjects of the images. The digitization of the archive, or rather, the rendering in digital format the analogical archive, is motivated by several reasons. Firstly, a more effective use and interpretation of the archive and, secondly, its conservation.

PHOTOGRAPHIC
ARCHIVE



PLATE
ON GLASS OR CELLULOID



DIAPOSITIVE



PHOTOGRAPHIC PRINTS
XIX-XX CENTURY

Fig. 1. Contents of the photographic archive of Museo Egizio. Image source: Photographic archive of Museo Egizio, (graphic elaboration by Davide Mezzino).

Fig. 2 Photographic archive of Museo Egizio (graphic elaboration by Davide Mezzino).



The identification of the represented subjects bases its motivations on the complete lack of organization in the starting data. A lack that is reflected in various inventory registers, compiled starting from the 1950s, when these stated assets began to be inventoried for the first time.

The photographic plates that are still present in the museum have therefore been listed in the registers. Many of them were used at the beginning of the twentieth century, and had never before been inventoried. Unfortunately, these volumes turned out to be inadequate and unreliable, especially for the recognition of photographic archaeological subjects [Moiso e Montonati 2021, p. 90]. The project, launched in September 2018, immediately focused on scanning of the material as well as on performing an inventory check of the newly-arrived archive [4], starting from the photographic back-

ground paper and then continuing with the background plates and finally with the slides. Following the completion of the digitization of the Plate Fund, in 2019, it was decided to fill the gaps and inaccuracies relating to the first inventory registers through a study and recognition of the subjects, while maintaining the inventory number and the object number attributed to the plate in negative [5]. A limited part of the plates was initially examined, that is, only those relating to the archaeological activity conducted by the museum in Egypt between 1903 and 1937 [Moiso 2008; Moiso 2016], consisting of over 1.500 shots. For this homogeneous group (but uneven in terms of inventory and physical arrangement in the Fund), which includes different localities, it was therefore decided to proceed with a correct recognition of the places represented. Considering the lack of references, the selected methodology was based on



ARCHIVE

Fig. 3. Wall of the tomb of the sculptor Ipuy (TT217), who lived during the reign of Ramesses II (XIX dynasty) in the village of Deir el-Medina. This detail of the wall no longer exists. Archive , C00083

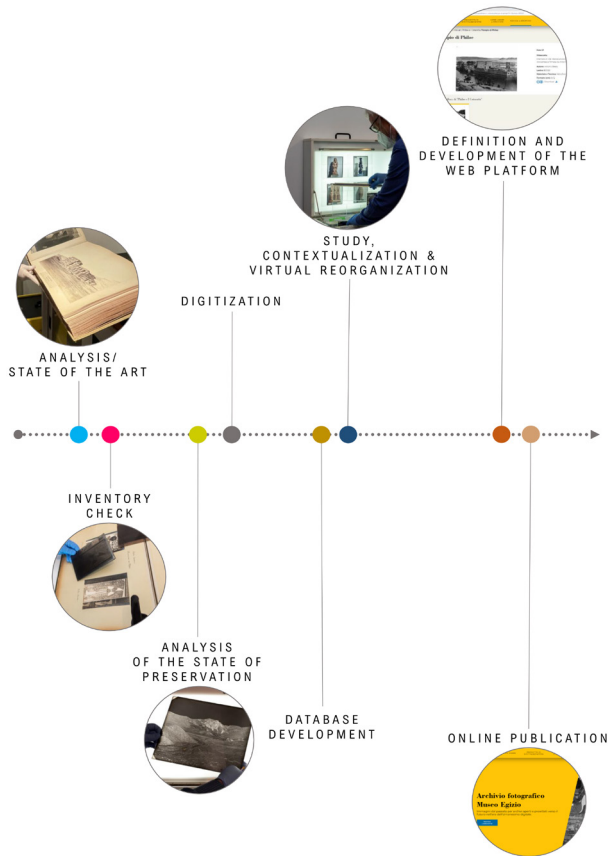


Fig. 4. Process of interpretation, study, analysis and digitization of the material preserved in the photographic archive of Museo Egizio. Image source: photographic archive of Museo Egizio, (graphic elaboration by Davide Mezzino).

the material to be studied. Firstly, a subdivision of the images based on the location was carried out. Secondly, the specific recognition of the subject exploiting the available bibliography as well as the modern images of the sites. These images have been useful to understand the transformations, both in terms of architecture and landscape, which occurred over the course of a century and to confirm the exact attribution of a photo to the supposed archaeological site.

An attempt to connect the individual images, one to another, was also tested through the use of significant reference points in the geography of the site. Although with several difficulties, it was possible to attribute a geographical and contextual framework to most of the photographs.

While the physical order has not changed, it was instead possible to implement a digital reorganization, adopting a geographical criteria. A series of folders and subfolders made possible to group images taken at a short time distance from each other in the same site. For example, during excavation phases images, but also photographs of the same object, taken in different years (fig. 3).

The digitization process

In the XXI century digitization is proving to be a determining factor for the knowledge and dissemination of an archive and stored material [6]. This applied also to the photographic archive of Museo Egizio [7], which was therefore able to open its doors to the wider public: without the intervention of digital tools and channels of communication, it would have been difficult to make it accessible, both for the necessity to identify suitable spaces for this initiative, and because of the fragility of the material. Past publications have, on numerous occasions, exploited the potential of the archive, but its use has always been limited to a few elements [Donadoni Roveri et al. 1988, 1994; Donadoni Roveri 1989; Robins 1990; Tosi 1994]. However, their use has not been systematized, to the point that over the time the files have been lost, or they never arrived to Museo Egizio.

Only starting from 2010 a large digitization campaign started with a selection of a thousand plates. This was then included in the general project of study of the archives, that opted for a complete digitization, which

took place between 2018 and 2020 (fig. 4). The images were scanned at a resolution of 1.200 DPI (Dots per Inches) in .tif format, to be then further processed with computer post-production software (Adobe Photoshop). They were also converted into .jpeg format, in order to have two formats, useful for different purposes. The files have been named through the alphanumeric code of the plate support. This operation was accompanied by the drafting, initially in Excel format, of a database where to insert the information obtained from the frame and from the subject represented.

For an optimal management, two macro-folders were created, one with the progressive order of the files, the other with the order by geographic locations, as they were progressively identified.

Thus, from Giza to Nubia, the photographic archive of Museo Egizio documents important phases of excavation, as well as landscapes and temple complexes still *in situ*, allowing on the one hand to better understand the Museum excavation campaigns in Egypt and, on the other, to identify the state of conservation, cleaning and restoration of the tombs and temples already known, especially those in the Theban area. It is important to underline that in some cases photography has also been fundamental to document walls and architectural elements that no longer exist, providing crucial information for further studies.

From the completion of this part of the project, the common desire to enhance and share the archive with the community emerged, and the best way to achieve this was identified in the creation of a new *ad hoc* website.

To ensure the maximum dissemination of the information and digitalized data of the historical-photographic archive to a large and heterogeneous audience, the text files were saved in .pdf, while the image files were saved in .jpg format.

In terms of interoperability, the SiME Media Gateway software, thanks to its modularity, can potentially post-produce all formats that will be deemed necessary in the future. Despite the constant diffusion of AI techniques to categorize images and files of different nature, no use was made of intelligent algorithms as the amount of data available turned out to be relatively small. Furthermore, the low quality of the images required a considerable interpretative effort which, if performed by an algorithm, would have led to an unacceptable degree of error.

From the digital archive to online content sharing: the SiME Media Gateway

Whenever a content is disseminated, it is necessary to filter and organize the material available according to the information that one wishes to convey, the target and the type of medium used.

In the case of the historical archive, the decision was taken to use a universal medium, such as the website, in order to allow a wide audience to access the material, even if it was clear that the public target would be relatively small. As for the contents, the choice was made to reveal, almost without filter, all the images associated with the excavation areas and to show them organized by geographical area, navigable on different levels of detail. The decision was also taken to provide them with captions that describe the subjects or landscapes illustrated. Following the policy of the Museum, the images on public sites can be freely viewed and downloaded via download without limitations (Public Domain - CC0), a decision also adopted for the historical archive site.

As already mentioned, the digital material has been organized into folders according to a geographical order. In detail, the organization of the "Historical photographic archive" folder is nested, that is, it starts from the macro geographical areas passing through the folders dedicated to historical excavations up to the detail of the excavation areas.

Normally, populating a website is obtained through several manual steps of optimization and insertion of the selected contents. Moreover, usually great efforts are made to organize the materials in different ways, first in the folders of your repository (internal server or NAS), then on its management software, and finally on a dedicated site.

In the case of Museo Egizio, these efforts were avoided by opting to automatically and centrally manage the publication of images from the historical archive, directly from the archive folders to the online site.

This goal was achieved thanks to a specific software, the SiME Media Gateway where SiME stands for Sistema Museo Egizio. The SiME Media Gateway software is part of a larger system, SiME [Mezzino, Lori 2021], which manages all the media files of the Egyptian Museum and allows them to be published and organized on the web platforms connected to it, such as the historical archive itself (<https://archiviofotografico.museoegizio.it/>) (fig. 5), the site of the Museo Egizio Online collection (<https://collezioni.mus->

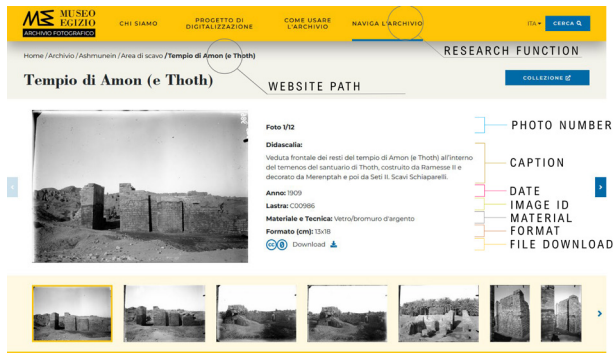


Fig. 5. Internal page of the “Photographic Archive” website. The image shows the interface of the “Browse the Archive” section, highlighting its structure (graphic elaboration by Francesca Lori, Davide Mezzino).

Fig. 6. Functioning scheme of the online photographic archive which includes three main phases: 1) archiving digital material; 2) back-end processing by the SiME Media Gateway software on the server; 3) sharing material on the photographic archive website (graphic elaboration by Francesca Lori, Davide Mezzino).

oeogizio.it/), the site dedicated to sharing studies on papyri (<https://collezioneepapiri.museoegizio.it/it-IT/>) and other applications still being conceived and developed.

From an Operational point of view, the SiME Media Gateway software automates the production of all useful formats starting from the archive images while the SiME management software integrates a user control panel for the centralized association of the different formats to each platform of publication. The operators of the Egyptian Museum, from the SiME panel, can choose the formats of the “media” files to be created, modify the TAGs associated with the images, view their information including the publication status, the date on which they were taken, and view the copyright.

The development of the SiME Media Gateway became fundamental in a moment of transition of Museo Egizio from one management system to another. The passage of the contents from one system to another would have required a massive manual intervention by the staff of the museum to upload and associate the images to each object information sheet. Given the Museo Egizio’s renewed wish to reach its public on different platforms and share digital material on a collection management system, it was essential to centralize and automate the processes so that all the operators of the different departments of the museum, including that of “collection and research” and “collection management” could collaborate without delay and loss of material.

In conclusion, the automated approach saves not only many hours of data entry but also disk space, since the material is produced, without unnecessary steps, in reduced dimensions for the WEB (fig. 6).

The relevance of this approach is even greater in this case, as the digitalized material is bound to grow exponentially over time.

To avoid the loss of digitized information, a virtual server service external to the museum endowed with a backup on cloud was activated.

Conclusions: the role of the online archive of Museo Egizio

This contribution presents through the empirical experience of the “historical photographic archive” a methodological approach and a workflow for the study, interpretation and organization of the photographic archive material of Museo Egizio.

Within this framework, the digitization of the photographs played a crucial role. It started from different physical supports, defining methods for documentation and representation to implement the consultation and management of the archive.

To address these objectives it was necessary to recognize the subjects represented, digitalize the entire archive, define a method of archiving and displaying information and identify the dissemination strategies.

Thanks to the online historical photographic archive of Museo Egizio it was possible to share the outcomes of this research activity. The online publication of the historical photographic archive has implemented the accessibility and interaction of this part of the Museum collection with specialists and general public.

Acknowledgments

This research is a cumulative work that had the fundamental support of two institutions: Fondazione Museo delle Antichità Egizie di Torino and the Politecnico di Milano. First and foremost, we would like to thank Christian Greco, Director of the Fondazione Museo delle Antichità Egizie

Notes

[1] This is the case of funds that were dismembered among several institutions or merged with other funds. Emblematic from this point of view is the paper archive of the Museo Egizio, that includes documents hosted since 2008 in the Torino State Archive, in three different sections. The photographic archive, despite having been conferred to the Museo Egizio in 2016, left small traces in other institutions, such as the Torino State Archive and the Anthropology Museum at the University of Torino, which preserve numerous images from shots taken during the excavations by the Italian Archaeological Mission in Egypt.

[2] Archivio di Stato di Torino, Fondo Museo Egizio, I vers., m. 240.

[3] A box with numerous glass plates by Lanzoni was recently found on the antiques market, concerning images of steles kept at the museum. Unfortunately, acquiring them was not possible.

[4] The photographic archive of the Museo Egizio was given to the museum in 2016, and physically transported to the museum premises in August-September 2018.

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The process of digitization and subsequent publication of the photographic archive material is important both for the dissemination of this part of the Museum collection, which has not been known so far, and to encourage other museums and cultural institutions to start the same procedure with their own archives.

In this process, the role of representation disciplines has been fundamental in investigating, interpreting and communicating this rich, complex and little-known archive, activating further processes of knowledge able to enrich our understanding of cultural heritage. This project will proceed by extending the same approach to the other portions of the archive, with the final aim of making the entire historical photographic archive public and available for free

di Torino and all the dedicated staff that contributed to the feasibility study of the project. A special thanks goes to Corinna Rossi, Professor of Egyptology at the Politecnico di Milano. She helped to build the site user interface and SIMÉ itself.

[5] In full compliance with the reorganization through the so-called historical method, inaugurated by Francesco Bonaini in the mid-nineteenth century.

[6] See for example the case of the photographic archive of the Alinari Foundation, which placed its photographic heritage on an online site (<https://www.alinari.it/it/>), or the Griffith Institute of Oxford (<http://www.griffith.ox.ac.uk/gri/carter/gallery/>) with the digitization of photographs by photographer Harry Burton, taken during and after the opening of Tutankhamun's tomb starting in November 1922.

[7] Before digitizing the photographic archive of Museo Egizio, between 2016 and 2019 the staff of the museum concentrated on the digitization of about 80,000 documents that are part of the paper archive, kept in the State Archives of Torino. The aim of the project was to make their archive accessible to the researchers of the museum directly on their computer devices. A mutually beneficial collaboration was born, culminating in the "Maps of Egypt" study day, held on November 27, 2019. In 2019, the scans were also officially delivered to the State Archives, the owner of their copyright, which then uploaded to their official website, and are now available to anyone. [funds | State Archives of Torino \(beniculturali.it\)](https://www.funds.it)

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