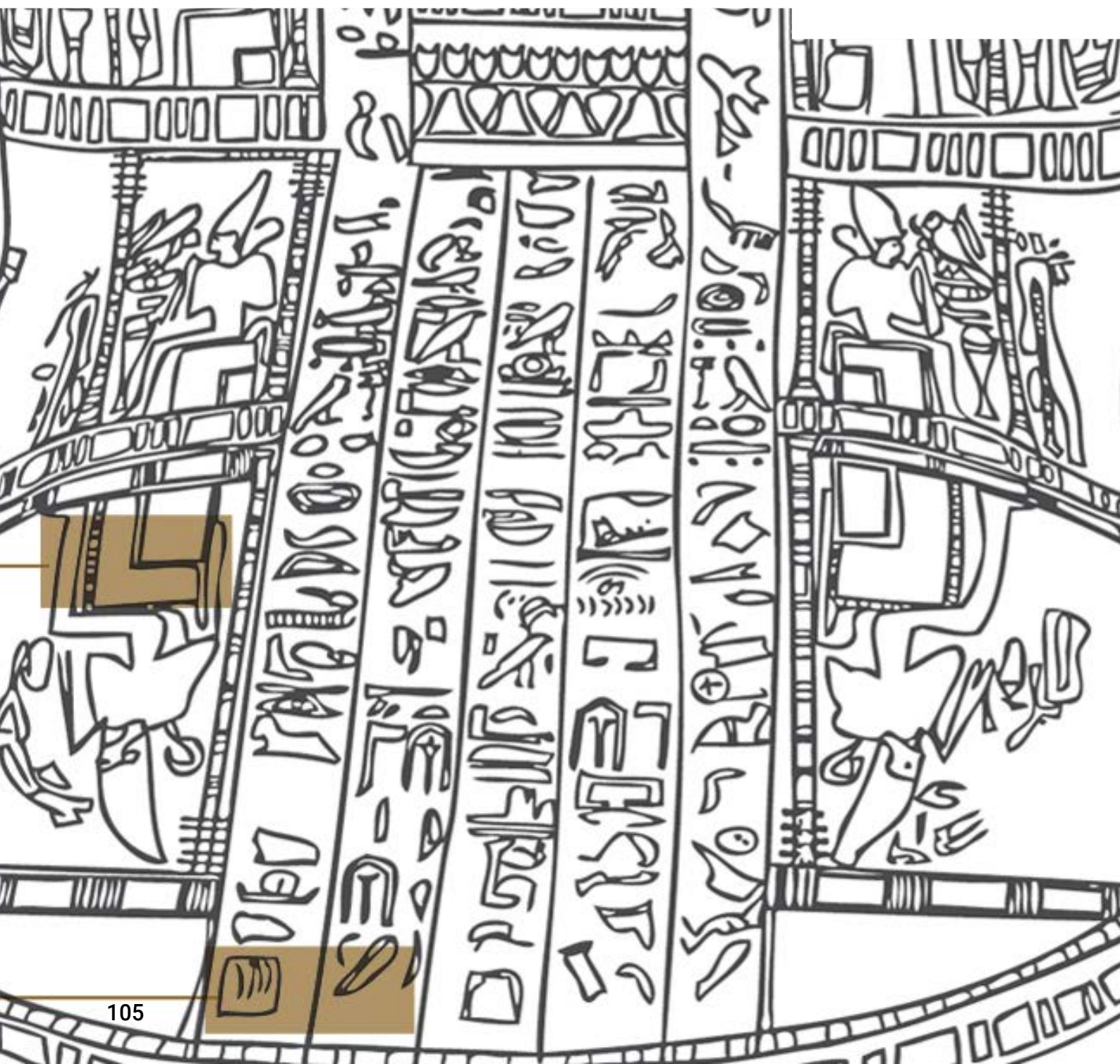


Traces of Armand Bonn

Teodoro Auricchio, Luc Delvaux, Annalisa Pilato



Traces of Armand Bonn

Teodoro Auricchio, Luc Delvaux, Annalisa Pilato

The article discusses the restoration of an important series of Egyptian coffins of the Twenty-first Dynasty (c. 950 BC), originating from the second cache of Deir el-Bahari, acquired by the Royal Museums of Art and History of Brussels in 1894. The project provided the opportunity to study the work of Armand Bonn, a restorer residing in Paris, who was active between 1894 and 1896 as “Réparateur actuel du Musée Royal des Arts Décoratifs de Bruxelles”.

The study focuses on the intervention he performed on the sarcophagus of a Priest of the God Amon, Inv. E 5879. Since the lid of this coffin was particularly deteriorated, Bonn changed the position of the foot, so that the coffin could be closed again. What makes Bonn’s modifications even more interesting, is the handwritten notes that he hid under the stucco work carried out for the repairs, so that posterity would know the name of the first to perform the restoration on these important artefacts. As part of the restoration project, the transformations carried out by the Parisian restorer and the traces of the ancient manufacture were documented.

In the history of artefacts, there have been several reasons that, over time, have led to alterations of the objects’ shape or decoration. These may be linked to functionality, custom, fashion, religion as well as the craftsman’s mindset attempting to achieve e.g., an “economy” of work subordinated to the cost of raw materials and the time required to work them. Particularly in the case of wooden artefacts, the difficulty of finding the raw material together with the cost/time ratio has always influenced the technical choices of craftsmen and subsequently those of restorers working throughout past centuries. They also had to comply with restoration theories of their time.

Spuren von Armand Bonn

Der Artikel befasst sich mit der Restaurierung einer bedeutenden Serie ägyptischer Särge aus der 21. Dynastie (ca. 950 v. Chr.), die aus dem zweiten Hortfund von Deir el-Bahari stammen und 1894 von den Königlichen Museen für Kunst und Geschichte in Brüssel erworben wurden. Das Projekt bot die Gelegenheit, die Arbeit von Armand Bonn zu untersuchen, einem in Paris ansässigen Restaurator, der zwischen 1894 und 1896 als „Réparateur actuel du Musée Royal des Arts Décoratifs de Bruxelles“ tätig war.

Die von ihm durchgeführte Restaurierungsmaßnahme am Sarkophag eines Priesters des Gottes Amon, Inv. E 5879, steht dabei im Zentrum der vorliegenden Studie. Da der Deckel dieses Sarges besonders stark beschädigt war, veränderte Bonn die Position des Fußteiles dahingehend, dass der Sarg wieder geschlossen werden konnte. Was Bonns Eingriff noch interessanter macht, sind die handschriftlichen Notizen, die er unter den für die Reparaturen ausgeführten Stuckarbeiten hinterlegte, damit die Nachwelt den Namen desjenigen kennt, der die erste Restaurierung an diesen bedeutenden Artefakten vorgenommen hat. Im Rahmen des Restaurierungsprojekts wurden die von dem Pariser Restaurator vorgenommenen Veränderungen und die ursprünglichen Herstellungsspuren dokumentiert.

The restoration process recently performed on an important series of Egyptian coffins dating back to the Twenty-first Dynasty (around 950 BC), originating from the “Second Cache of Deir el-Bahari” and acquired by the Royal Museums of Art and History of Brussels in 1894, provided the opportunity to study the work of Armand Bonn, a restorer of the late 19th century. According to his recently discovered own business cards, Armand Bonn was the “Réparateur actuel du Musée Royal des Arts Décoratifs de Bruxelles...” and active between 1894 and 1896.

The coffins and mummy-cases from the Second Cache of Deir-el-Bahari

Discovered in 1891, the Second Cache of Deir el-Bahari (known in Egyptian as Bab al-Gasus, the “Gate of the Priests”) is located north of the lower courtyard of the funerary temple of Queen Hatshepsut of the 18th Dynasty. It consists of a 14 m deep well, followed by a 90 m long horizontal corridor, which leads to a small burial chamber and from which a 50 m long lateral corridor branches off¹. The tomb was emptied in just a few days, from 5th to 13th February 1891, by Georges Daressy (1864–1938), assistant curator of the Boulaq Museum, Eugène Grébaut (1846–1915), director of the Service des Antiquités, and Urbain Bouriant (1849–1903), director of the French Institute of Oriental Archaeology.² This huge collective tomb housed several hundred coffins and other objects. It was the final resting place for many of Amun’s clergy, contemporaries of the 21st Dynasty (c. 1069–945 BC). It appears to have been built during the pontificate of the high priest Psusennes (c. 976–945 BC) in order to gather in one place – which could be more easily guarded and protected – the funerary furnishings of these priests and priestesses, who had originally been buried in various family tombs in the Theban Necropolis. The area of Deir el-Bahari, where other contemporary collective tombs were discovered, was then selected as a concentration site in this vast operation of reorganizing the Theban necropolis.³

After the discovery of the Cachette, a huge amount of coffins and other funerary furnishings suddenly entered the Giza Museum, and so Egypt decided to offer numerous objects to several countries, including Belgium. The Royal Museums of Art and History of Brussels thus received lot number XV, constituted by the French curators of the Giza Museum, which included two large outer coffins (E.05879 and E.05887), four inner coffins (E.05881, E.05883, E.05884 and E.05885) and four mummy boards (E.05906, E.05907, E.05908 and E.05909). In addition, there were two large stuccoed and painted wooden chests (E.01837 and E.01838), as well as 92 faience funerary statuettes (E.05400 to E.05446), usually in pairs.

The first restoration work of Armand Bonn

The coffins from Deir el-Bahari arrived in Brussels three years after their discovery, in 1894, obviously in a very precarious state of preservation. On 1st February 1894, the Museum’s assistant curator, Joseph Destrée, wrote to the chief curator, Charles de Haulleville:

«Plusieurs cercueils ont souffert d’un séjour prolongé dans les caisses ainsi que vous avez pu le constater. M. Bonn [?] s’est mis à la tâche pour effectuer les restaurations les plus urgentes. Cette réparation s’imposait avant que le déballage ne fut terminé car le décor tombe à la moindre secousse. M. Bonn s’acquitte fort bien de ce travail délicat ; il a du reste exécuté des besognes de ce genre au British Museum et au Louvre.» [Several coffins have suffered from prolonged storage in the crates, as you will have noticed. Mr Bonn [?] has set to carry out the most urgent restorations. This repair had to be carried out before unpacking was complete, as the decor falls off with the slightest jolt. Mr Bonn handles this delicate work very well; moreover, he has also performed similar tasks at both the British Museum and the Louvre.]⁴

The Museum commissioned Armand Bonn, a Parisian restorer working for the Belgian museum, to restore these precious artefacts. He conducted a meticulous job, restoring the structural integrity and redecorating any flaws found in the painted surfaces, strictly using the camouflage technique, which was in line with the restoration theories of the time.⁵

The restoration work⁴ carried out towards the end of the 19th century has allowed the entire collection to be preserved to this day. It was only in 2014 that the museum in Brussels, now called the Musée Art & Histoire, entrusted the Istituto Europeo del Restauro in Ischia (Italy) with the preservation work on the six coffins and four mummy covers, a work, that is currently in progress.

The new restoration process began with a diagnostic campaign that made it possible to acquire information on the nature of the materials used and to document and highlight, via data analysis, all the structural and decorative transformations carried out on the artefacts by the Parisian restorer.

After having acknowledged the actual state of preservation and how significant and particularly invasive the 19th century intervention had been, the museum’s management proposed that the restoration procedure should include the removal of everything that was not original in terms of both structure and decoration.

Only a few pictorial elements were retained to bear witness to the historic restoration, but which had not interfered with the correct iconographic interpretation of the artefact. Furthermore, a few non-coeval structural elements were left untouched that were deemed necessary for the safety of the artefact itself.



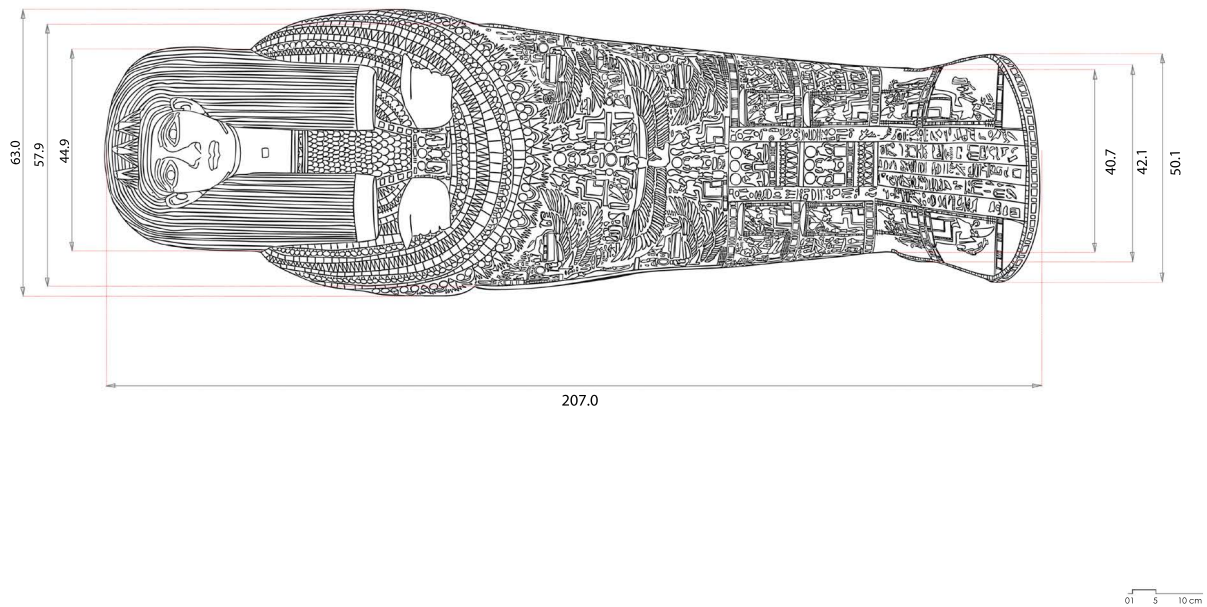
1 top view of coffin E.05879
before treatment

1. GENERAL INFORMATION OF THE COFFIN

1.1 MEASUREMENTS

Coffin Lid	E. 5879
Part	Exterior
Side	Top
Scale	1 : 7

2 measurements of the coffin



Historic modifications made to coffin E.05879

Within the complex restoration process, the work that Armand Bonn had performed on the coffin, Inv. No. E.05879, hosting the priest of the Egyptian deity Amun,⁶ is worthy of note and represents an extraordinary case of modification as documented by the executor himself (fig. 1, 2). Particularly interesting are the works of Armand Bonn on the repair of the lid of the coffin foot E.05879 (fig. 3, 4). Unlike all the other coffins in the collection, this one had a rather unusual lid construction due to the incoherent position of its base. Indeed, the base of the lid end section was strongly inclined and set back with respect to the actual length of the structure, which prevented the closure of the case underneath and left a large gap (fig. 5).

Although there was no record of the condition of the coffin at the time it was found, nor of the restoration work carried out in the 19th century, it soon became clear that this construction could be attributed to a restoration campaign.

Most likely, the coffin lid base had already arrived detached from the structure, as evidenced by 19th century travel documents highlighting the critical condition of the Egyptian coffins upon their arrival at the museum in Belgium.

Among the measures taken by Bonn, the base was reattached by shifting it backwards in relation to the two longitudinal axes of the lid to eliminate the two large gaps on the sides facing the base structure. In doing so, Bonn caused the position of the base to slope sharply, as if trying to restore the required size of the coffin to be able to close it.

At this stage, Armand Bonn, who favoured the “camouflaging technique”, not only altered the appropriate compositional and structural arrangement of the lid, but he also prevented the coffin from being positioned upright, thereby also altering its functional authenticity in relation to ancient Egyptian funerary rites.



3 side view of the coffin before treatment



4 UV analysis (performed by Diagnostica per l'Arte (DIART), Milan)



5 during removal of the overpaint on the left side: obvious retraction and inclination of the foot end in respect to the axis of the coffin

Analysis

Bonn's intervention posed two main challenges for the team at the Istituto Europeo del Restauro (IER). The first task was to scientifically prove the hypothesis of the changes made and who had executed them. The second was to decide whether to maintain Armand Bonn's historic restoration or to restore the base in its correct position, thus eliminating all structural and decorative alterations made to it (fig. 6).

Although the modifications were evident in the eyes of Egyptologists and restorers, the decision to reposition, which was considered the most appropriate hypothesis, had to be supported by scientific data that indisputably proved the modification process and, above all, the correct repositioning of the base structure.

The data pertaining to the findings of the physical/chemical tests performed on the base area were then assessed, more specifically the results of the X-ray, UV, IR and XRF tests that confirmed that significant overpainting and structural modification in this area had been carried out. In detail, the UV analysis performed on the pictorial surface of the base revealed several re-painted areas. XRF testing revealing the chemical composition of the pigments used in these areas showed the presence of modern pigments such as Prussian blue, zinc yellow and yellow ochre containing barium⁷ used for re-integration purposes.⁸ IR testing confirmed a re-painted layer, identifying further underlying decoration, which, after further diagnostic and iconographic inspections, also turned out to be a figment of the restorer's imagination. By taking X-rays of the base, it was possible to identify the variety of materials used during the ancient restoration process; plaster, cotton, several types of wood were used as dowels alongside modern metal elements⁹. Moreover, it was possible to identify the traces of certain authentic structural elements such as the entry holes of wooden nails used to couple the various elements of the structural system.

In addition to the tests providing important data to ascertain the transformation that had taken place, it was also necessary to identify the original structural connection points. To do this, the holes left by the ancient nails that secured the tenons of the joints of the various components were located, and for this purpose it was necessary to carry out a particularly complex operation by removing and re-positioning a portion of the painted surface underneath where both the entrance hole and the remains of the broken nail forming the fastening element of the original vertical structure could be both identified and documented.

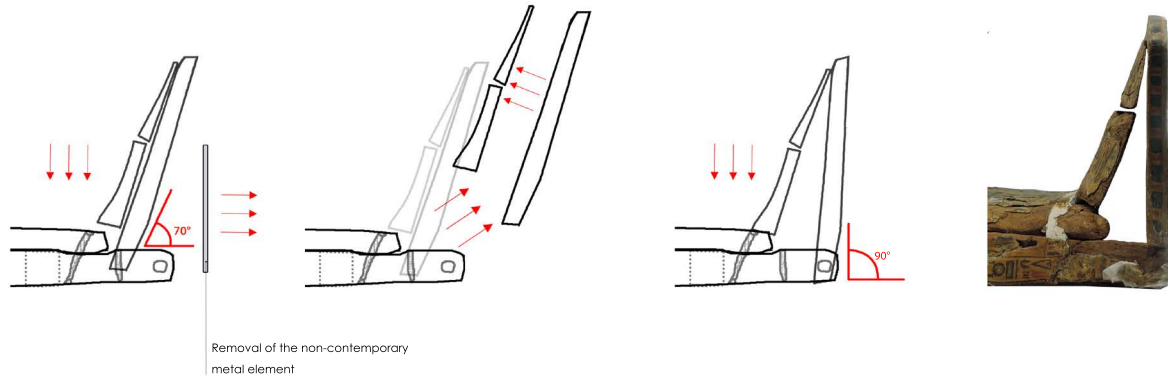


6 during removal of the overpaint: non-original plaster of the former restoration campaign

3. RESTORATION INTERVENTION

3.6 SIMULATION REPOSITIONING OF THE FOOT

Coffin Lid	E. 5879
Side	Foot
Scale	1 : 7



01 5 10 cm

Conservation treatment

Thanks to the collaboration of the Egyptologists of the scientific committee overseeing the work, the IER restorers were able to correctly re-position the wooden elements that formed the coffin foot end, using the original joints and wood/carbon composite nails. The latter were specifically designed and manufactured by institute members, to be sturdier and more easily recognisable in any future X-ray analysis, than the simple wooden sealing nails.

Throughout the re-positioning process, painstaking attention was paid to the angle of inclination that the foot end had to have with respect to the axis of the entire lid (90°) as well as to the space between the different hieroglyphs on the wooden elements that formed the structure in order to not disrupt the correct interpretation of the text painted on the artefact (fig. 7, 8).

The diagnostic phase was of paramount importance to scientifically determine the process of change that the area of the coffin lid foot end had undergone. Then it was important to determine either the removal or non-removal of this modification in relation to the concept of historicising the restoration work. The idea of being able to facilitate a correct interpretation of the artefact by the public, encumbered from both aesthetic and functional modifications, prompted Egyptologists to decide to eliminate Armand Bonn's work. False hieroglyphs and decorations, the obvious structural modification, which not only prevented the lid's practical

function (the closing of the coffin), but also hindered its functionality from a ritual point of view, favoured the idea of correctly re-positioning the foot end, being aware that this would reveal two large gaps on both sides.

Not only the diagnostic analysis confirmed what had occurred on the base of the coffin, but the removal of what had been applied during the earlier intervention provided the restorers with an interesting evidence of the modern restoration history of these artefacts – the handwritten notes, which will be discussed later.



8 coffin during the repositioning of the foot end

The choices made by Armand Bonn

Particular attention must be paid to the reasons that led Armand Bonn to make the aesthetic and technical choice to shift the foot end backwards. They are not only the proof of an operational process, but have deeper roots. They are an expression of the restoration theories of that time and bear witness to the influence of the concept of the “economy of labour” that has often influenced and characterised the mentality of the artisan’s world.

The first hypothesis hinting at the possible reasons that prompted Armand Bonn to carry out this particular restoration intervention can be attributed to his desire not to introduce new structural elements to reintegrate the large gaps that would have formed with the correct positioning of the base. Considering the importance of the find he rather tried to preserve the material structure of the lid as authentic as possible. The second hypothesis is linked to an unconscious “economic interventionism” which, justified by a deviated concept of integrity, favours a simplification of the stages of the restoration process. Bonn may have chosen to combine the different remaining structural elements of the base to interfere as little as possible, without posing any kind of problems associated with functional concepts, achieving a discrete albeit misleading result. If Bonn had had to re-position the base correctly, according to the restoration method he had carried out on the other coffins, he would have been forced to re-integrate and re-decorate the large side gaps, resulting in increased labour.

A third hypothesis could have been the combination of the above two scenarios, and perhaps the reasons for the eventual choice can be found here.

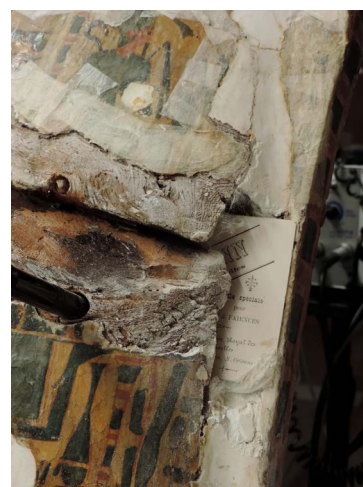
This is not to say that the Parisian restorer was irresponsible or shrewd, but to emphasise that at the heart of the methodological process he carried out was the pursuit for a compromise between the authenticity factor, linked to the importance of the artefact, the integrity factor, linked to the restoration theories of the time, and finally, the consideration of the economic factor, linked to the time required for the work, even if it was an extremely limited and perhaps rather instinctive option.



9 finding of Armand Bonn's autographed business card



10 the coffin during endoscopic analysis



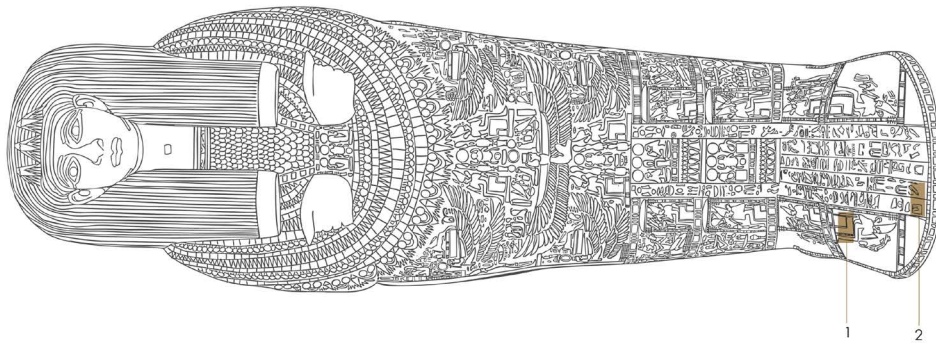
11 the second business card emerging underneath the plaster work

3. RESTORATION INTERVENTION

3.4 ELEMENTS DISCOVERED IN THE COFFINS

Coffin Lid	E. 5879
Part	Exterior
Side	Top
Scale	1 : 7

12 the location of the two business cards in the lid of the coffin



Legend

■ Business cards of Armand Bonn



01 5 10 cm

Handwritten accounts

What makes Bonn’s modification even more interesting are the handwritten notes he concealed under the plasterwork of his restoration. These were intended to enable later generations to be aware of who had performed this important restoration and to specify both the start and end dates of the work carried out. Armand Bonn must have been aware that in the course of time someone else would have to carry out restoration work on the coffins. Therefore, he apparently decided to toy with his future colleagues as if on a treasure hunt, placing his handwritten documents in several coffins and in various other locations.

Two business cards from Armand Bonn’s workshop were discovered in coffin E.05879. Beneath the plasterwork, on the back of one of the cards, Bonn had written both his signature and a date, marking the start of the restoration work: 8th February 1894 (fig. 9–12).

On the header of the card, in addition to the name written in capital letters, there is a list of the museums that the Parisian restorer, resident in Brussels, worked for: London, Paris, Brussels, New Orleans. What is particularly striking is the workshop motto written on the visiting card: “Reparation Invisibles”, a simple yet meaningful phrase that gives an insight into the restoration philosophy of the era and consequently the technical reasons adopted by the craftsmen.

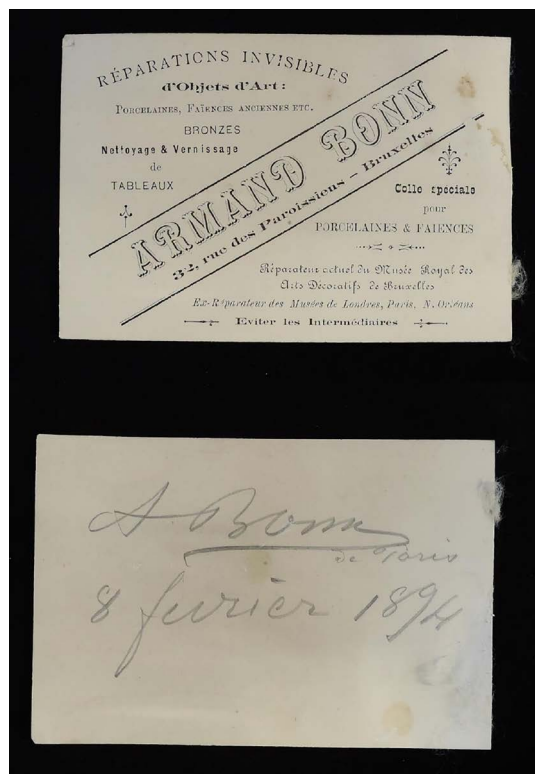
Later, during the restoration of coffin E.05885, a second document was found inside the wig, below the pictorial re-integration and preparation: a stamped envelope bearing the year 1896 addressed to Bonn on which he wrote in pencil: “J’ai restauré ce sarcophagi ainsi que 6 autres. Moi Armand Bonn de Paris 19 April 1896” [I restored this coffin with 6 others. Me Armand Bonn from Paris on April 19, 1896] (fig. 13).

Bonn also signed his name by writing Paris down the side, so that people would be aware of his Parisian origins. Above all, he wrote the date, 19th April 1896, making it clear when the work was finished and how long it took to complete the restoration process.

Moreover, the postmarks bearing the same date as those written by Bonn do not appear to have been written by chance but rather, they represent the restorer’s desire to certify this particular event.

Bonn's handwritten documents do not only represent a unicum, but are particularly interesting in that, on the one hand, they confirm the philosophy of the technical possibilities in the 19th century restoration theories, and, on the other hand, they open up an interesting debate about the current methodological choices confronting the contemporary restorer when deciding whether to remove or retain modifications that have been made.

It is worth pointing out that the methodological choices regarding either the retention or elimination of modifications have always been associated with a time-related concept. Indeed, over the decades, evolving restoration theories, new materials and methodologies have characterised the work carried out by restorers. It implies that the modification may be seen as proof of this methodological excursus and therefore either its retention or removal must be evaluated on a case-by-case basis (fig. 14).



13 Armand Bonn's business card

14 coffin E.05879 after restoration



Teodoro Auricchio

Istituto Europeo del Restauro
Castello Aragonese, 80077 Ischia (Napoli) Italia
info@istitutoeuropeodelrestauro.it

Luc Delvaux

Musées Royaux d'Art et d'Histoire
Jubelpark 10 Parc du Cinquenaire 1000 – Brussels
l.delvaux@kmg-mrah.be

Annalisa Pilato

Istituto Europeo del Restauro
Castello Aragonese, 80077 Ischia (Napoli) Italia
pilatoannalisa@gmail.com

Notes

- 1 NIWINSKI 1988, Table I; DELVAUX & THERASSE 2015, pp. 83–111; DELVAUX 2020
- 2 DARESSY 1900; LIPINSKA 1993–1994; REEVES 2000, pp. 81–82; KÜFFER & SIEGMANN 2007, pp. 44–61
- 3 NIWINSKI 1988, pp. 28–29
- 4 Archives MRAH. Acquisitions. Dossier 1894, 6/276 (Don du Gouvernement de S.A. le Khédive d'Égypte), letter of J. Destrée to Ch. de Haulleville, Brussels, 1st February 1894
- 5 CONTI 1988
- 6 About this coffin: DELVAUX/THERASSE 2015, pp. 102–105
- 7 MONTAGNA 1993, sheet 64, 75, 15
- 8 BONIZZONI ET AL. 2018, pp. 122–131
- 9 In the second half of the 20th century, on the occasion of a maintenance intervention at the Museum, a sturdy L-shaped metal element was fixed to the outside of the foot to help support the inclined board of the foot.

Bibliography

BONIZZONI ET AL. 2018:

Bonizzoni Letizia, Bruni Silvia, Gargano Marco, Guglielmi Vittoria, Zaffino C., Pezzotta Andrea, Pilato Annalisa, Auricchio Teodoro, Delvaux Luc, Ludwig Nicola, Use of integrated non-invasive Analyses for Pigment Characterization and indirect Dating of old Restorations on one Egyptian Coffin of the XXI Dynasty. In: *Microchemical Journal* 138, 2018, pp. 122–131

CONTI 1988:

Alessandro Conti, *Storia del restauro e della conservazione delle opere d'arte*. Milano 1988

DARESSY 1900:

Georges Daressy, Les sépultures des prêtres d'Ammon à Deir el-Bahari. In: *Annales du Service des Antiquités de l'Égypte* 1, 1900, pp. 141–148

DELVAUX/THERASSE 2015:

Luc Delvaux and Isabelle Therasse, *Sarcophages. Sous les Etoiles de Nout, Racine – Musées royaux d'Art et d'Histoire, Bruxelles* 2015

DELVAUX 2020:

Luc Delvaux, New lights on the lot XV from Bab el-Gasus, in: Rogerio Sousa, Alessia Amenta, Kathlyn M. Cooney (Eds.), *Bab el-Gasus in context. Rediscovering the tomb of the priests of Amun*, Roma/Bristol 2020, pp. 341–352

KÜFFER & SIEGMANN 2007:

Alexandra Küffer und Renate Siegmann, *Unter dem Schutz der Himmelsgöttin. Ägyptische Särge, Mumien und Masken in der Schweiz*. Zürich 2007

LIPINSKA 1993–1994:

Jadwiga Lipinska, A Great Find Revisited #2: Bab el-Gusus. Cache-Tomb of Priests and Priestesses of Amen. In: *KMT A Modern Journal of Ancient Egypt* 4, No. 4, 1993–1994, pp. 48–59

MATTEINI MOLES 1990:

Mauro Matteini Arcangelo Moles, *Scienza e Restauro. Metodi di indagine*. Firenze 1990

MATTEINI MOLES 1989:

Mauro Matteini Arcangelo Moles, *La chimica nel restauro. I materiali dell'arte pittorica*. Firenze 1989

MONTAGNA 1993:

Giovanni Montagna, *I Pigmenti. Prontuario per l'arte e il restauro*. Firenze 1993

NIWINSKI 1988: Andrej Niwinski, 21st Dynasty Coffins from Thebes.

Chronological and Typological Studies (Theben 5). Mainz am Rhein 1988

REEVES 2000:

Nicholas Reeves, *Ancient Egypt. The Great Discoveries. A Year-by-Year Chronicle*. London 2000

Credits

Fig. 1, 3:

Istituto Europeo del Restauro (IER)

Fig. 2, 4–14:

Musées Royaux d'Art et d'Histoire, Bruxelles (KMKG-MRAH)

Title:

Detail of fig. 12