

The model conservator – Unpicking the past to understand discipline development

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ABSTRACT

During the late 19th and early 20th centuries, the disciplinary development of archaeology and conservation are linked through novel scientific methods applied to excavation and artefact stabilisation in the field and the museum. The model conservator 'repaired' and 'mended' to aid production of archaeological and research outputs, and was firmly classified as a technical practitioner. Open access, publically available web-based resources and unpublished resources offer insight into the development and establishment of archaeological conservation as a discipline and academic subject. Case studies focus on field excavations and object preservation at Ur, Mesopotamia, as well as on the development and evolution of technician training to university-sponsored conservation programmes offered by the UCL Institute of Archaeology in London. This paper chronicles the model conservator's changing identity from technician to professional expert to assess its impact on contemporary conservation practice and discipline.

INTRODUCTION

The development of archaeology and archaeological conservation are linked through the application of scientific methods to field excavation, artefact retrieval, and stabilisation following excavation in the late 19th and early 20th centuries. The model conservator, who 'repaired' and 'mended', evolved out of a technical identity where practitioners stabilised artefacts in the field and, following export, in the laboratory and museum. The transition from technician with hand skills to professional conservator with recognised expertise is critical towards understanding the current framework of contemporary conservation practice, as well as its discipline development. Recent academic research trends favouring publically available web-based databases, digital documentation projects, and open access publications provide extraordinary access to published and unpublished conservation records. These resources offer insight into the development and establishment of conservation as a profession and academic discipline. The identity of the model conservator, its fluid definition over time and its impact on how conservation is defined and taught is investigated in this paper through survey of these resources and the finds they describe.

HISTORIC BACKGROUND

The archaeological production of research outputs – including documentation, description, interpretation, publication, and exhibition of finds/sites in archaeology and museums – directly defines the model conservator in the late 19th and early 20th centuries. Scientific approaches to archaeology, anthropology and conservation were significant advances that initiated systematic characterisation and interpretation of objects (e.g. Petrie 1888, Rathgen 1898, Petrie 1904, Lucas 1924, Scott 1926, Leechman 1931, and Plenderleith 1934). Artefact stabilisation derived directly from facilitating retention of associated archaeological/technological data to assist interpretation during/following excavation. Further, early conservation scientists – transplants from scientific disciplines – focused their efforts on identifying and understanding degradation mechanisms caused by changes in relative humidity, temperature and light exposure, as well as on developing stabilisation treatment materials and techniques. Both Sir W.M. Flinders Petrie and Sir R.E. Mortimer Wheeler advocated conservation



Figure 1. Conservation repair and mending of archaeological ceramics. Photo courtesy of UCL Institute of Archaeology

both indirectly through publication, and directly, by supporting university training in the ‘technical repair’ of finds.

During this period, the model conservator was an anonymous technician who completed training in a field or museum laboratory under the auspices of an archaeologist, curator or scientist. They ‘mended’ and ‘repaired’ artefacts to support the research aims of the excavation or institution, and, prior to the development of training programmes, were expected to ‘obtain the necessary knowledge and experience in the course of their normal duties’ (Nature 1953, 145) (Figure 1). Frequently, they had a background in trades requiring hand skills including carpentry, plastering, metal working, etc. (Janssen 1992, 74; Dooijes and Düring 2016, 101). In contrast, archaeologists, scientists, and curators completed university degrees in recognised disciplines, and used their expertise to develop research questions of broad interest. Working together, their joint efforts created and/or supported the research products of archaeology, art history, and science.

There is a noticeable tension between recognised scholars/scientists and the people (frequently women or non-European excavation workers) responsible for ‘repairing’ and ‘mending’ which is visible in documentary records and publications. This friction, built on perceived differences between scientists – typically men with university degrees and externally recognised expertise – and non-scientists – technicians with knowledge gained through work experience –, is part of the process by which knowledge is constructed and defined in developing disciplines. Gieryn (1983, 782) calls this ‘boundary-work’, whereby scientists socially construct science through specific characteristics and activities to demarcate scientific work from non-scientific/technical work. The distinct terminology used to describe actors as either scientists or technicians and to define their actions (scientific experimentation vs. mending/repairing) created, and continues to create, social and intellectual boundaries with long-lasting impact on the contemporary discipline.

MATERIAL SAMPLE SET AND METHODS

The concept of ‘model conservator’ is reconstructed from multiple resources including online collections digitisation projects (British Museum and Ur Online), published (Google Books Library Project, HathiTrust Digital Library, and Internet Archive) and unpublished documents [UrCrowdsource and University College London (UCL)], as well as artefact treatment records [British Museum (BM) and Ur Online]. These resources enable the reconstruction of the early model conservator’s identity by specifying the skills and knowledge needed to preserve archaeological finds and museum collections, while facilitating research. Documents discussing the materials and methods used in the field are summarised and compared to the current preservation and condition of artefacts treated using these techniques. Further, the discipline’s development and evolution of formal training programmes is analysed using published and unpublished UCL records from the Institute of Archaeology. When assessed together, these documents provide insight into the evolution of the model conservator – from technician to university-trained professional – and a legacy of preservation.

RESULTS

The model conservator, as defined in the literature and institutional/university records, developed manual skills through training intended to support archaeology and museum collections. Consequently, respected scientists, curators, and archaeologists write the majority of publications describing conservation and degradation in place of the conservators stabilising the archaeological materials discussed (Petrie 1888, Rathgen 1898, Petrie 1904, Lucas 1924, Scott 1926, Hall 1927, Leechman 1931, Plenderleith 1934).

Excavations and field treatments

During the late 19th and early 20th centuries, scientific archaeological investigation of the past resulted in the rapid collection of numerous artefact assemblages. Sir C. Leonard Woolley, director of the Joint Expedition of the British Museum and University of Pennsylvania Museum to Mesopotamia (JEBMUPM) which excavated Ur and other sites from 1922–34 under the auspices of the Iraqi Department of Antiquities (Hafford 2013), encountered countless rich burials and unbaked cuneiform tablets. Their recovery and preservation in the field, laboratory, and museum were challenging. Unpublished field reports and letters describe numerous women's headdresses, including 'fine examples waxed in earth so as to preserve the remains of the skull and all the visible ornaments in their position as found' (Woolley 1928c), as well as unbaked clay tablets (Woolley 1923a). Woolley discusses preservation issues relating to the excavation and stabilisation of other composite (sculptural objects, musical instruments) and metal artefacts (Woolley 1923b, 1923c, 1928b).

Over time, the expedition developed standard techniques of excavation and stabilisation for frequently encountered artefacts. Clay tablets were 'packed in tins in dry sand and baked in an improvised kiln heated by fuel oil' and where 'necessary treated with hydrochloric acid' to remove soluble salts (Woolley 1923a). Fragmentary finds were carefully cleaned, joined and consolidated with celluloid (*ibid.*). In later seasons, Leon Legrain, expedition member and curator of the Babylonian section, University of Pennsylvania Museum (UPM), undertook the bulk of tablet preservation in the field (Press Report 1925). Financial outlays for restoration materials used in field interventions and packing are sometimes captured in financial reports (JEBMUPM 1922, 1923, 1927, 1928b, 1928c). However, materials like celluloid and wax used for field preservation of artefacts are not recorded.

Exhibitions and museum treatments

Throughout the excavation and publication process, expedition members and sponsors were aware of the preservation needs of recently excavated finds and the necessary skill to accomplish it. Correspondence regarding the allocation and distribution of finds, as well as the costs of their preservation and exhibition, highlight this issue. Woolley (1928a) attests that artefact allocations were influenced 'by the fact that the Iraq Museum has no one capable of dealing with objects that need restoration or technical treatment'. Sir Frederic George Kenyon, BM director, and George Byron Gordon, UPM



Figure 2. Conservation restoration of artefacts as complete objects. Photo courtesy of UCL Institute of Archaeology

director, describe museum technical staff as ‘skilled repairers’ (Gordon 1924) or ‘workers of the skilled repairer type’ (Kenyon 1924). Legrain (1924) remarks in a letter to Gordon that ‘copper and bronze material was under the careful chemical treatment and reconstruction at the hands of the three experts’. While the identity of these experts – skilled repairers or scientists – is difficult to reconstruct from Legrain’s correspondence, his respect for the preservation challenges involved is clear. The vast numbers of delicate artefacts and time needed for their conservation was another major concern. Kenyon (1924) writes to Gordon of the lack of ‘qualified man or men’ to complete the work, yet the required skills or qualifications are not specified and never defined directly.

Repair and restoration of finds was expensive, labour intensive, time consuming, and always conducted in service to archaeological publications or exhibitions. Woolley and his colleagues frequently conducted and/or supervised further interventions in London or Philadelphia. Due to the vast number of finds and to support ‘costs in connection with the restoration of objects’ (JEBMUPM 1928a), external funding was awarded in 1928 to Woolley and Sir Max Mallowan, a general assistant at Ur from 1925–31 (McCall 2001). For the most part, the ‘technicians’ and ‘repairers’ remain anonymous. Their work was recognised only as an archaeological and museum output (e.g. publication or exhibition) viewed by academic and public audiences where object aesthetics and the perceived appearance of completeness was critical. Partially preserved objects were rarely published – and restorations sought to make artefacts recognisable (Figure 2). ‘Miss Paterson’ is one of the few identified in account records for her ‘work on beads etc.’ (JEBMUPM 1928a) – likely she was responsible for stringing them for exhibition. The role of the archaeologist or curator is paramount as interpreter of the past, yet is facilitated through the model conservator’s skilful reconstruction.

Woolley’s correspondence highlights the division between academic professional and technician, where some preservation activities required supervision by an archaeologist. Woolley writes to Gordon regarding exhibit preparations (1924b):

I am repairing things + putting them into condition without regard to their ultimate destination: of course the labour employed means a certain expense to the British Museum . . . the important thing from my point of view is to what, in some cases, can only be done by me or under my supervision, for the repair & preservation of the things I’ve dug up.

Woolley’s sense of preservation responsibility is clear, but equally is his perspective that his professional experience, knowledge and understanding surpass the knowledge and skills of those he supervised. Elsewhere, he states (1924a), in a letter regarding a recovered bull statue, ‘I have had to do all the work on it myself, as it required novel treatment + there seemed nobody quite qualified to do it.’ This was not an uncommon belief held by archaeologists and curators. Henry R.H. Hall, keeper of Egyptian and Assyrian antiquities at the BM, published a similar viewpoint. Regarding the Imdugud relief (BM No. 114308), he stated, ‘the work of restoring it



Figure 3. Screenshot from the Wellcome–Marston Expedition to Tell ed-Duweir (known as Biblical Lachish) demonstrating application of wax in the field to faunal remains. Photo courtesy of UCL Institute of Archaeology

where necessary has been carried out by Mr. Beck, of Messrs. Brucciani's, under my supervision' (1927, 87). These excerpts highlight the divide between academic experts/professionals and the model conservator – a technician with no perceived authority or recognised identity.

Artefact case studies

As previously discussed, the volume of materials treated at Ur and other archaeological sites during this period was significant, putting a strain on resources. Frequently, artefact interventions continued far after the end of the excavation or expedition. Review of treatments summarised by the BM online collections database and Ur Online for the UPM provides insight into the treatments conducted. BM records highlight a number of composite headdress artefact assemblages (BM 1929, 1017.110; 1929, 1017.175) and metal helmets with human remains (BM 1935, 0116.15, -34 and -35) preserved as wax packets, documenting the use of excavation field lifting methods described by Woolley (1928c) and recommended by others (Rathgen 1898, Petrie 1904, Lucas 1924) (Figure 3). The selection and use of wax was expedient given Iraq's limited resources in the 1920s/30s, as well as the need to excavate quickly large volumes of finds during short field seasons. While efforts to reverse this intervention and reveal the artefact assemblages from the darkened/embrittled wax packets remain challenging, these objects in their current form represent an important legacy documenting the development of the field.

Similarly, review of the 687 copper alloy/copper alloy composite artefacts included in Ur Online database records provide insight into the allocation of resources and expertise, as well as the selective consideration of treatment documentation. While a total of 139 objects show evidence of treatment during this period, only one has a well-defined conservation intervention history – *Ram in a Thicket* (UPM object 30-12-702) – primarily due to the artefact's research importance; the remaining 138 show indications of electrolytic reduction (UPM 2007 condition survey). Limited records challenge our knowledge of when these interventions occurred, but they highlight a model conservator who is familiar with laboratory equipment, basic chemistry and the academic literature.

Conservation training

Training the model conservator initially relied on technical hand skills gained while working in the field or museum laboratory. Practitioners were employed as museum technicians responsible for all mending and repair activities (see Figures 1 and 2) (Janssen 1992). As the volume of recently excavated finds entered museum collections, the need for increased and formalised preservation training to retain their research importance was recognised. Current conservation graduate coursework at the UCL Institute of Archaeology has its roots in the programme defined by Ione Gedye in the late 1930s/40s, which marries scientific and archaeological knowledge with practical learning. Unpublished notes from this period highlight awareness that prospective model conservators needed good hand skills, as well as chemical understanding of polymers (Parker and Gedye 1937, Gedye 1947). This perspective, later codified in a published

proposal, is the foundation for a formalised technician training curriculum (Gedye 1950, 240–1).

This model became the basis of the Museums Association Technical Certificate developed in 1953 (Museums Association 1953, 79), which defined necessary expertise, as well as methods of assessing competency (Moncrieff 1987, 1045; Museums Association 1953, 80–1; Nature 1953). Forming the critical foundation for professional accreditation, the model conservator was defined solely by the Museums Association. Gedye recognised the need for university support in developing a degree-granting training programme, publishing an appeal with colleague Henry H.M. Hodges (1964) to achieve this. These documents highlight that external recognition of discipline-specific knowledge and expertise by multiple allied disciplines, the establishment of degree-granting university training programmes, as well as governmental agencies and public recognition is needed to establish a profession and academic discipline worthy of funding and support.

CONCLUSION

Understanding the identity of the model conservator – derived from learned attitudes towards technical work – is critical for contemporary conservation practice that constantly debates its role in professional and academic circles. While this paper specifically addresses archaeological conservation, observations and conclusions are directly relevant to the discipline as a whole. Conservation in the late 19th and early 20th centuries was invisible and divorced from academic and public view in both excavation and museum settings – a role the field continues to renegotiate. At best, conservation was considered a trade requiring good artistic and hand skills; at worst, a field populated by housekeeping technicians in service of other professionals. The model conservator’s impact on collections is visible in the successful and unsuccessful methods and materials used to preserve artefacts. In spite of this dichotomy and the fact that conservation interventions remained veiled from the public, the work of these early practitioners is critical to museums and excavations, as well as archaeologists using collections all over the world. Furthermore, insight into the development and transition of the model conservator as technician to a professional trained in a respected university discipline is significant for current practice and its dissemination through training and increasing public access.

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REFERENCES

- DOOIJES, M. and M. DÜRING. 2016. Preserving the story of restored objects: Combining technical data with historical sources. In *Recent advances in glass and ceramics conservation 2016*, eds. H. Roemich and L. Fair, 97–107. Paris: International Council of Museums.

- GARACHON, I. 2010. From mender to restorer: Some aspects of the history of ceramic repair. In *Glass and Ceramics Conservation 2010: Proceedings of the Interim Meeting of the ICOM-CC Glass and Ceramics Working Group, 3–6 October 2010, Corning, New York, USA*, ed. H. Roemich, 22–31. Corning: ICOM Committee for Conservation in Association with The Corning Museum of Glass.
- GEDYE, I. 1947. Notes on the treatment of archaeological objects in the field & the laboratory. Unpublished course notes. University of London, Institute of Archaeology.
- GEDYE, I. 1950. Training museum technicians. *The Museums Journal (Museums Association)* 49(Jan): 240–42.
- GEDYE, I. and H.W.M. HODGES. 1964. The teaching of archaeological conservation. *Bulletin of the Institute of Archaeology* 4: 83–7.
- GIERYN, T.F. 1983. Boundary-work and the demarcation of science from non-science: Strains and interests. *American Sociological Reviews* 48(6): 781–95.
- GORDON, G.B. 1924. Letter to F.G. Kenyon June 28, 1924. 1924-5-45a.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/424> (accessed 15 October 2016).
- HAFFORD, W.B. 2013. Digital data – Ur of the Chaldees: A virtual vision of Woolley’s excavations. *The CSA Newsletter* XXVI(1). <http://csanet.org/newsletter/spring13/nls1301.html> (accessed 14 October 2016).
- HALL, H.R. 1927. Sumerian relief in copper. *The British Museum Quarterly* 1(4): 85–7.
- JANSSEN, R.M. 1992. *The first hundred years: Egyptology at University College London 1892–1992*. London: Petrie Museum.
- JOINT EXPEDITION OF THE BRITISH MUSEUM and OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1922. Statement of accounts for the month of December, 1922. 1922-2-31.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/162> (accessed 15 October 2016).
- JOINT EXPEDITION OF THE BRITISH MUSEUM and OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1923. Statement of accounts for the month of January, 1923. 1923-3-3.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/168> (accessed 15 October 2016).
- JOINT EXPEDITION OF THE BRITISH MUSEUM and OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1927. Statement of accounts for December 1927. 1928-2-49f.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2701> (accessed 18 October 2016).
- JOINT EXPEDITION OF THE BRITISH MUSEUM and THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1928a. Statement of accounts. June 1928. 1928-2-49i.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2704> (accessed 15 October 2016).
- JOINT EXPEDITION OF THE BRITISH MUSEUM and OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1928b. Statement of accounts for the period July 1st to October 31st 1928. 1928-3-34a.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2822> (accessed 15 October 2016).
- JOINT EXPEDITION OF THE BRITISH MUSEUM and OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA. 1928c. Statement of accounts for December 1928. 1928-3-35a.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2824> (accessed 18 October 2016).
- LEECHMAN, D. 1931. *Technical methods in the preservation of anthropological museum specimens*. Ottawa: National Museum of Canada.
- LEGRAIN, L. 1924. Letter to G.B. Gordon – September 10, 1924. PA-CU-B07-F002-063a-1924.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/4416> (accessed 15 October 2016).
- LUCAS, A. 1924. *Antiques – Their restoration and preservation*. London: E. Arnold & Co.
- KENYON, F.G. 1924. Letter to G.B. Gordon – June, 1924. 1924-5-38.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/412> (accessed 15 October 2016).
- MCCALL, H. 2001. *The life of Max Mallowan: Archaeology and Agatha Christie*. London: The British Museum Press.
- MONCRIEFF, A. 1987. Conservation and the Museums Association in the United Kingdom. In *ICOM-CC 8th Triennial Meeting Preprints, Sydney, 6–11 September 1987*, ed. K. Grimstad, 1045–49. Paris: International Council of Museums.

- MUSEUMS ASSOCIATION. 1953. The technical certificate of the Museums Association. *The Museums Journal (Museums Association)* 53(June): 79–81.
- NATURE. 1953. Technical certificate of the Museums Association. *Nature* 172(4369): 144–5.
- PARKER, D. and I. GEDYE. 1937. The treatment of archaeological objects in the field. Unpublished lecture notes. June 1937. University of London Institute of Archaeology. University College London Special Collections.
- PETRIE, W.M. FLINDERS. 1904. *Methods and aims in archaeology*. London: Macmillan and Co., Limited.
- PETRIE, W.M. FLINDERS. 1888. The treatment of small antiquities. *The Archaeological Journal* 45: 85–9.
- PLENDERLEITH, H. 1934. *The preservation of antiquities*. London: The Museums Association.
- PRESS REPORT. UR OF THE CHALDEES 1925. PA1925-7-15b.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/1076> (accessed 18 October 2016).
- RATHGEN, F. 1898. *Die Konservierung von Alterthumsfunden*. Handbücher der Königlichen Museen zu Berlin, v. 7. Berlin: W. Spemann.
- SCOTT, A. 1926. *The cleaning and restoration of museum exhibits – Third report upon investigations conducted at the British Museum*. London: His Majesty’s Stationary Office.
- WOOLLEY, C.L. 1923a. Field report – 15 January 1923. 1923-3-4c.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/171> (accessed 14 October 2016).
- WOOLLEY, C.L. 1923b. Field report – 23 February 1923. 1923-3-16c.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/193> (accessed 15 October 2016).
- WOOLLEY, C.L. 1923c. Field report – December 1923. 1923-4-17c.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/246> (accessed 15 October 2016).
- WOOLLEY, C.L. 1924a. Letter to G.B. Gordon – 16 June 1924. 1924-5-41b.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/416> (accessed 15 October 2016).
- WOOLLEY, C.L. 1924b. Letter to G.B. Gordon – 22 June 1924. 1924-5-42b.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/420> (accessed 15 October 2016).
- WOOLLEY, C.L. 1928. Letter – 30 January 1928. 1928-2-16b.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2638> (accessed 15 October 2016).
- WOOLLEY, C.L. 1928b. Letter – 25 December 1928. 1928-3-29a.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2812> (accessed 14 October 2016).
- WOOLLEY, C.L. 1928c. Letter – 25 December 1928. 1928-3-29b.jpg. UrCrowdsourc. <http://urcrowdsourc.org/omeka/items/show/2813> (accessed 14 October 2016).

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