The history and conservation of the papyrus of Tuy

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Summary The ancient Egyptian papyrus of Tuy dates from the fifteenth century BC. It contains a selection of the texts that the ancient Egyptians called the ‘Spells for Coming Forth by Day’ (now generally known as ‘the Book of the Dead’) and is unusual for two reasons: the sheets of papyrus that formed the roll are individually numbered and a large-scale horizontal inscription appears on the verso. This is the only known copy of the Book of the Dead on which these two exceptional features are combined. Fragments of the manuscript have been found in collections in Bologna and Moscow, but the British Museum holds two substantial sections of the papyrus. One part was acquired in 1835 from the collection of Henry Salt and the other in 2009 from the collection of the pioneering photographer William Henry Fox Talbot. Both were included in the exhibition Journey through the Afterlife at the British Museum in 2010–2011, and this presented an opportunity to examine both parts of the papyrus very closely during conservation treatment. This contribution presents both historical research into the acquisition of the two pieces and information found in the course of conservation. Before conservation the Salt and Talbot parts of the papyrus differed greatly in appearance, due largely to the different methods of preservation that had been used in the nineteenth century. Examination during and after conservation found more similarities between the two fragments than their appearance had at first suggested. Additionally, during treatment a small sketch was found on the backing paper used to repair the Talbot papyrus. This previously unrecorded sketch provided an insight into the early attempts by a Victorian pioneer of photography to capture images and proved to be of interest to colleagues at the Fox Talbot Museum.

INTRODUCTION

In 2009 the British Museum acquired two large fragments of an ancient Egyptian papyrus bearing hieroglyphic texts and vignettes from the Book of the Dead, Figures 1a and 1b [1; pp. 52–53, lot 144]. These had formerly been part of a collection of Egyptian antiquities in the possession of William Henry Fox Talbot (1800–1877), the pioneer of the negative/positive photographic process. The fragments (EA 79431) belong to a substantial manuscript, other parts of which had entered the collections of the British Museum in 1835 (EA 9913). Further pieces have been identified in the Museo Civico, Bologna (KS 3168) and the Pushkin Museum, Moscow (I, 1b, 122) [2, 3; pp. 67 and 85, No. 273]. This contribution presents the important, newly acquired fragments and the particular challenges they pose for conservation and research, while also setting them in the context of their history within the collection of a pioneer of photography.

The papyrus has suffered considerable damage in the past and some parts of it are entirely lost. Nonetheless, on the sections that survive more than 30 individual spells from the Book of the Dead can be identified, most of which are accompanied by vignettes. The manuscript was clearly prepared without a specific owner in mind as blank spaces were left in the texts for the name of the eventual owner to be inserted, a practice that is evident in numerous manuscripts [4; p. 267]. In some, but not all, of these spaces the name ‘Tuy’ was later written in hieratic script, but no names were added to the figures of a man and woman who appear in some of the vignettes – generic ‘husband and wife’ images that are typical of early Book of the Dead papyri. Tuy’s name is not preceded by any title and nothing else is known of him, but the style of the script and figures indicates a date in the earlier part of the Eighteenth Dynasty. Irmtraut Munro dated the manuscript to the reigns of Tuthmosis III and Amenhotep II [2]. This would correspond to approximately 1479–1400 BC, but it has been suggested that the depiction of the god Seth in one of the vignettes might point to a date earlier than the reign of Hatshepsut, that is before c.1473 BC [1].

The papyrus has two unusual features. One is the presence of numerals in retrograde hieratic at the upper
right edges of the individual sheets of which the roll was composed, seen most clearly on the part of the papyrus acquired in 1835. Secondly, on the verso of the recently acquired fragment there is a single line of inscription in large and carefully drawn hieroglyphs that again contains blank spaces to receive the names of the owner and his parents, a feature for which only a few parallels are known. One of the finest examples of such a verso inscription appears on the Book of the Dead of the Overseer of Builders of Amun, Amenhotep (EA 10489) [3; pp. 29–30, No. 7].

The part of the papyrus of Tuy acquired by the Museum in the nineteenth century was purchased at the eight-day sale of the third collection of antiquities formed by Henry Salt (1780–1827), British Consul General in Egypt [5, 6]. This sale at Sotheby’s, London began on 29 June 1835 and included over 1200 lots. The Book of the Dead of Tuy appears as lot 118, under the heading “Papyri, principally found in the tombs at Thebes.” It is described as “A roll of Papyrus, with Hieroglyphical Characters, damaged” [7]. A pencilled annotation on a copy of the catalogue in the Department of Ancient Egypt and Sudan at the British Museum adds the word ‘much’ before ‘damaged’. Salt’s third Egyptian collection was assembled by his agent Giovanni (‘Yanni’) d’Athanasi [5; p. 21], in a three-year period from 1824 until a few months before Salt’s death on 30 October 1827 [7; p. vi]. Unfortunately, records of the precise provenance of most of the objects are lacking, so that the exact spot at which the papyrus was found in the extensive Theban necropolis is unknown.

The origin of the section of the papyrus now in Moscow is unknown, but the portion in Bologna came from the painter and architect Pelagio Palagi (1775–1860), a native of that city [5; p. 317]. He had purchased his Egyptian antiquities in 1831 from the collection of the Italian diplomat Giuseppe di Nizzoli, who in turn had obtained them during his time in Egypt between 1814 and 1828 [5; p. 312]. Again there is no record of the exact source of this part, but the fact that the Salt and Nizzoli/Palagi pieces were obtained in the same period suggests that the person who discovered the papyrus might have divided it into several portions, which were then sold to different collectors, a common practice at that time.

The details of how and where Talbot acquired his part of the papyrus are uncertain. He maintained an interest in ancient Egyptian scripts and possessed a small collection of Egyptian antiquities [5; p. 410, 8]. Talbot’s letters supply a certain amount of circumstantial information about his attempts to obtain antiquities. His correspondence, now in the British Library and published online by De Montfort and Glasgow universities [9], provides a fascinating glimpse of life in early nineteenth-century England for the privileged and well-educated classes of society. His cousin Christopher Rice Mansel Talbot wrote in 1826 that he planned to sail around the Mediterranean and to visit Egypt the following year and that he would try to buy “curiosities manuscripts and antiquities” [9; Doc. 1307]. But it seems that he was not as successful as he had wished, since in 1827 he wrote again, “As for the Egyptian collection, I found it almost impossible to deal with the rascals. Everything of value is collected and kept for the different consuls, & for the refuse which they will not take, an extravagant price is asked” [9; Doc. 1616].

It has been suggested that Talbot received some Egyptian antiquities as a gift from the Prussian Egyptologist Karl Richard Lepsius, with whom he corresponded in the 1840s [8; pp. 72–73], but he also bought from dealers and at auctions in England. A letter dated 1837 from the London dealers Payne and Foss informs Talbot: “The Papyrus which I understand you are desirous of having, you will find mentioned in our Catalogue No. 6814. It is a very fine one, we could not reduce the price to less than 23£” [9; Doc. 5703]. This particular papyrus was not the Book of the Dead of Tuy as it was “written in … lines of hieratic” [10]. Also in 1837 Talbot bought five lots at the sale of d’Athanasi’s Egyptian collection at Sotheby’s, London [11]. The auctioneer’s copy of the catalogue, annotated with purchasers’ names, is now in the British Library. One of the lots, No. 274A, was described as “a large collection of portions of Manuscripts and Papyrus, some with coloured figures” [11; p. 24]. This might well describe some of the incomplete
papyri that Talbot owned [1; pp. 52–56, Lots 144–149], and since d’Athanasi had formed Salt’s third collection as well as his own it is possible that part of Tuy’s papyrus was among the items sold in 1837 – but proof remains lacking.

DESCRIPTION OF THE PAPYRUS FRAGMENTS BEFORE CONSERVATION

Three frames of the Salt papyrus and the recently acquired Talbot fragments were destined for inclusion in the exhibition Journey through the Afterlife (4 November 2010–6 March 2011) and accordingly came into the paper conservation studio for examination and conservation treatment prior to display. In the Salt frames, only the top part of the roll remains, as approximately the bottom third is lost. After its discovery in the nineteenth century the manuscript was attached to a paper backing in order to preserve it. This in turn was laid onto another piece of paper or card and thick brown ink wash lines were drawn around the edges of the whole. It was then cut into six separate sections and each was framed, Figure 2. The backing paper had been toned a brown colour on the front, presumably to match the papyrus and thus make the numerous lacunae less noticeable. Over the years, light exposure has changed the colour of the toned backing from brown to orange and has also lightened the papyrus considerably giving it a ‘bleached’ appearance [12], resulting in a very noticeable contrast between papyrus and backing paper.

At first glance the two large Talbot papyrus fragments look very different in appearance to the Salt sections described above. They both have their full height and the papyrus has retained its light brown colour, suggesting that it has not been exposed to high light levels. The Salt and Talbot fragments had been preserved and repaired with different materials, which also contributed to their disparate appearance. Good quality watercolour paper had been used as a support for the Talbot fragments and, where the band of text occurred on the verso, a window had been cut into the backing paper and the papyrus was covered with pieces of goldbeaters’ skin, an almost transparent animal membrane, so that the text remained visible. This process had been carried out without removing the creases or turnovers on the papyrus and as a result there was considerable local distortion of both papyrus and backing paper. Because goldbeaters’ skin is sensitive to changes in relative humidity [13], some shrinkage had occurred, causing further distortions in these areas, Figure 3. Both Talbot fragments had been mounted on white card with a window mount and the whole placed in a large modern frame. The larger of the two pieces showed evidence of loss due to damage from insects.

The use of goldbeaters’ skin as a repair material for papyri is interesting as it is relatively rare and is more usually associated with the repair of vellum manuscripts or bindings [13; p. 131]. Its near transparency made it a useful material, as transparent papers were not available commercially until the second half of the nineteenth century [14]. It has been found on only a few papyri in the British Museum, where it was used in very small strips to
repair fractures. One notable exception, where it is used extensively, is the large group of papyri (some written on both sides) that came to the British Museum in 1996 and which are known as the Kingston Lacy papyri (EA 75018–75038) [15]. Here, a patchwork of pieces of skin that had already been used for goldbeating, with particles of gold leaf still attached, were pasted onto the verso of the papyri as a support [15; p. 29]. The papyri had been bought by the collector and traveller William Bankes during a visit to Egypt, probably in 1818 [15; p. 14], and it is possible that Bankes and Talbot discussed the materials that might be used for preserving papyri, as surviving letters show that they were acquainted socially [9; Docs 1690 and 1706]. Interestingly, Bankes’ manuscripts also have a connection with those collected by Henry Salt, as part of a letter on papyrus from Bankes’ Kingston Lacy papyri was found to be the matching half of a letter that had been in the Museum’s collection since 1821 when it was acquired from Salt’s first collection [15; p. 14].

EXAMINATION BEFORE CONSERVATION

There are traces of blue pigment around the edges of many of the lacunae on the Salt sections and even where no pigment is visible the edges are dark and degraded. The context shows that the lacunae correspond to parts of the vignettes that would have been painted blue, but are now lost. The pigment appears to have ‘eaten into’ the papyrus in a manner similar to that seen on paper artefacts affected by the corrosive properties of the green pigment verdigris or iron gall inks [12; p. 241]. There are other examples of painted papyri with the same appearance, the most striking of these being the papyrus associated with Amenhotep (EA 10489) mentioned above, where the blue and green pigments have almost completely disappeared from many of the vignettes. Whether this damage was caused by the pigment, or by the combination of pigment and binder [16], is not known, but this papyrus is generally in very poor condition. Information is rarely available about the archaeological context in which rolls of papyri are found, or the treatment they received before entering the British Museum collections, so the reasons behind different types of deterioration are difficult to assess. It is clear, however, that the palette used to colour the vignettes on the Salt papyri also contained blue in addition to black, yellow, red and white. In comparison the Talbot papyrus has only a few small vignettes, but examination under magnification found a small trace of blue in addition to black, red and white, Figure 4. It was clear that here too, areas of loss corresponded with the parts of the vignettes that would have been painted blue, or possibly green.

Close examination of the Talbot fragments found two faint characters written in black ink in the bottom margin, Figure 5, and two small oblique strokes in red ink in a corresponding area at the top, where the sheets that make up the papyrus roll overlap. On the Salt fragments these annotations in the margins at the sheet joins are seen only at the top as the bottom of this section of the papyrus is lost.

CONSERVATION ASSESSMENT

After examining the Salt fragments, it was decided to remove the old paper backings from these papyri using a method that has been developed at the British Museum for such treatments [17, 18]. The procedure offered two advantages: first it could be established whether there was text, or the remains of text, on the verso under the backing paper; and second, it enabled the papyrus fibres to be examined and compared with those of the Talbot papyrus. In ancient Egypt, papyrus rolls were manufactured by making individual sheets that were then joined together. These sheets had been formed by laying down strips of papyrus stem in two layers, the second laid at a right angle to the first, before pressing and drying [19]. The fibres of the plant were thus embedded
in the finished writing material and are now visible as a criss-cross pattern when papyri are viewed in transmitted light. These patterns have proved very useful in the reconstruction of fragmentary papyri as the fibres can be matched quite accurately, enabling disparate pieces to be rejoined [15; p. 30]. In the case of the Salt papyri, it was impossible to discern any pattern through the very thick backing paper and, in addition, the contrast between the papyrus and the backing was unattractive and potentially distracting.

The removal of a backing is not undertaken without first making a thorough assessment of the papyrus. The removal process is carried out while the backing is damp and is lengthy, since paper backings can prove difficult to remove, either because of the tenacity of the adhesive used to attach them or because of the fragility of the papyrus, and in many cases, both these reasons. Additionally, the papyrus needs to dry out adequately for some time before treatment continues as the procedures that follow are carried out only when the papyrus is completely dry.

Although similar decisions needed to be made with regard to the removal of the backing and goldbeaters’ skin from the Talbot fragments, these were more straightforward as the backing materials were distorting the papyrus and had already caused fractures. Their removal was, therefore, necessary not only to improve the condition of the papyrus but also to prevent ongoing deterioration. To permit examination, the two Talbot fragments, which were mounted together in a heavy dealer’s frame, were lifted out to give access to the verso of the papyrus and the backing paper. Two overlapping pieces of paper had been used in a nineteenth-century repair to the larger fragment and a section of this backing paper, corresponding to the position of the text on the verso of the papyrus, had been cut out so that the inscription could be read. One of these pieces of paper was a folded sheet of used watercolour paper or a page from a sketchbook that bore a very faint pencil sketch of a rural churchyard scene, Figure 6. It was agreed to try to remove this piece of paper intact in order to preserve as much as possible of the sketch.

**CONSERVATION TREATMENT**

**Talbot papyrus**

After examination and documentation of the papyri, practical conservation began. When backings are removed from fragile papyri, it is necessary to protect the front of the object during treatment. The ‘facing’ applied to the papyrus protects the ink and other media as well as keeping each fragment in place during backing removal and until the verso of the papyrus is repaired. Prior to facing up the two Talbot fragments, preliminary work was carried out, for example to consolidate or repair small areas, lay back papyrus that had folded over and untangle small clumps of twisted fibres. Once straightened out, it was clear that the twisted fibres should lie vertically on the papyrus verso. The realignment of these fibres in their correct position was a later stage in the conservation process, but to prevent them adhering to the papyrus surface during treatment, small pieces of Bondina (a non-woven polyester fabric) were inserted between the fibres and the sheet, Figure 7. After these initial preparations the fragments were faced with strips of Japanese tissue that was adhered to the papyrus by brushing a 10% solution of Paraloid® B72 in acetone through the facing, Figure 8. To make the process more manageable the tissue was applied in strips rather than as a single large piece. Acetone has been found to be the most effective solvent for this purpose as it evaporates quickly, allowing time for the adhesive to attach the facing to the papyrus without penetrating through to the backing paper. Thin sheets of Bondina were placed either side of the faced papyrus and backing to provide them with support and to allow them to be manipulated when damp. The papyri were then placed on thick sheets of blotting paper dampened with water and a heavy piece of glass was positioned over the whole so that the old paper backings were in direct contact with the damp blotting paper. After several hours, during which the old paper had absorbed moisture and the adhesive softened, the papyrus was placed...
face down and the backings carefully peeled away with tweezers. This operation can be very slow and the process can take up to several days, during which time moisture may need to be reapplied to ensure that the adhesive remains soft. In this case, however, the removal was straightforward and it was possible to keep the repair paper with the pencil sketch intact. On lifting away the paper where the two pieces overlapped, a faint inscription in pencil that read ‘Amelina’ could be seen on the edge of the larger folded sheet that contained the sketch.

After the backings had been removed it was possible to repair the verso of the papyrus. Small pieces of Japanese paper were applied to the fractures in the papyrus using wheat starch paste. These repairs were carried out over a light box so that fractures, turnovers and incorrectly aligned fibres could be seen more clearly. As much repair and realignment as possible was carried out while the papyrus was still damp. It was not possible to remove creases and distortions at this stage, as the facing constrained the papyrus in its previous alignment. Once repaired, the fragments were dried by sandwiching them between sheets of blotting paper and boards that were pressed together using a light weight. The blotting paper was replaced after 24 hours and the sandwich was then left for several weeks to ensure that the fragments were thoroughly dry before removing the facing. Once dry, it was possible to examine...
the fibre structure of the two pieces in more detail over a light box and at this stage it became clear that a direct join existed between them, not in the arrangement in which they had been presented while framed but the other way around.

The facings were removed by placing the fragments between sheets of blotting paper soaked in acetone in the fume hood. This method dissolved the facing adhesive and after about 45 minutes the strips of tissue could be lifted off. Again the papyri were placed under a light weight for several weeks before undertaking the final stages of conservation: easing out creases and distortions; realigning small fragments and fibres; rejoining the two fragments; and mounting between sheets of glass. The areas of distortion were mostly confined to the top left side of the larger fragment and it was possible to remove these by applying very small amounts of water to the verso with a brush and then gently easing the creases away using flat tweezers. To avoid excess moisture, small pieces of blotting paper under glass weights were positioned over each area as soon as the distortion had been removed and left in place until the papyrus was dry. Misplaced fibres were realigned in the same way by applying enough moisture to make them sufficiently flexible to manipulate back into position before drying as described above. Finally, the papyrus was mounted in one piece between two sheets of 3 mm glass bound with Filmoplast linen tape, for display in the Journey through the Afterlife exhibition and for future storage [20].

**Talbot’s repair papers**

Enquiries into the sketch and the identity of the ‘Amelina’ named on the repair papers led to the Fox Talbot Museum at Lacock Abbey where the curator, Roger Watson, confirmed that this sketch was previously unknown, but he was able to provide some very helpful information [21]. Amélina Petit de Billier was born in Paris in 1800 and was governess to Talbot’s two half-sisters and later to his daughters. She remained at Lacock Abbey until she died in 1876 and was very much part of the Talbot family, accompanying them on their travels [9; Doc. 2570].

In 1833 Amélina travelled with Talbot and his wife to Italy and, while staying at Lake Como, Talbot made sketches using a *camera lucida* or ‘light room’. This portable device uses a prism that, when viewed at the correct angle, enables the eye to perceive an image of the subject to be drawn and the drawing surface simultaneously. Although faint, the image can then be traced [22]. Talbot was dissatisfied with his attempts and found that “when the eye was removed from the prism – in which all looked beautiful – I found that the faithless pencil had only left traces on the paper melancholy to behold” [23]. Some years earlier he had also tried a *camera obscura* or ‘dark room’, which uses a pinhole in a box to project an inverted image onto paper so that it can be copied [22]. His disappointment led him to “reflect on the inimitable beauty of the pictures of nature’s painting
which the glass lens of the camera throws upon the paper in its focus... how charming it would be if it were possible to cause these natural images to imprint themselves durably, and remain fixed upon the paper” [23]. On his return from Italy he began the experiments that would lead to his invention of the ‘photogenic drawing’ and subsequently the calotype and salted paper print [23, 24].

The sketch on the backing sheet has the appearance of a drawing made with a camera lucida. The area to be drawn is clearly delineated with ruled graphite lines and the image itself is lightly traced with marks of an even tone, without a variety of density. The quality of the drawing suggests that it was drawn by Amélina rather than Talbot and in addition her name is inscribed on the far edge of the sheet. Roger Watson confirmed that the sketch has the characteristic appearance of having been drawn using a camera lucida and concluded that it was probably made by Amélina in Italy [21].

Examination of the repair papers using transmitted light showed that they contain papermakers’ watermarks. That in the paper with the sketch reads ‘J W Whatman Turkey Mill’ and the last digit of the date is a ‘5’, the remainder of the paper having been cut away. The watermark on the adjoining sheet reads ‘Ruse & Turners 1832’. Both these woven handmade papers are of high quality and come from papermaking mills in Kent [25].

Salt fragments

Frames one to three of the Salt papyrus were selected for inclusion in the exhibition and were conserved during the preparations for display. After initial examination, the papyrus in frame three was removed from its glass mount and the edges of the backing papers were trimmed before applying a facing, Figure 8. The backings were removed by dampening the verso as described above. It was found that there were three layers of paper altogether; the first two were removed easily, as they were not adhered to the papyrus, but the last layer took several hours of careful removal as the papyrus was very thin and there were very fragile areas of local deterioration around the vestiges of blue pigment. Once the final backing was removed it was clear that, due to its general weakness, the papyrus would need to be supported with a new overall lining. A sheet of fine Japanese paper (Juko Usu mino, 10.28 grammes per square metre), previously toned to a neutral shade using Schmincke watercolour paints, was brushed with wheat starch paste and laid onto the papyrus verso. This was dried between sheets of blotting paper under a light weight for several weeks before removing the facing.

After reviewing the success of this treatment it was decided also to treat the sections in frames one and two. During the removal of the backing paper from the papyrus in frame two, two small, misplaced fragments were found on the verso, one of which could be relocated in one of the lacunae by matching the fibre pattern. In addition, a turn-over at the bottom edge was laid back in place to reveal a little more of the text. The three sections of the Salt papyrus were mounted between two panes of glass, leaving a space along the bottom to indicate how much of the lower edge of the roll was missing.

Examination of the Salt fragments after conservation

Once mounted between glass, the three sections of the Salt papyrus could safely be examined in greater detail over the light box. Transmitted light not only made the fibre structure of the papyrus visible, but also allowed the joins between the individual sheets of papyrus that make up the roll to be seen, as they appear darker at these overlaps. The first half of the roll, which is contained by frames one to three, shows...
joins between sheets at fairly regular intervals except at the beginning of the roll, where a strip had been inserted that is 10 cm wide, Figure 9. This insert corresponded with one of the hieratic numerals in the upper margin and examination confirmed that all of these annotations are written at sheet joins, presumably to facilitate the assembly of the roll from its component parts. There is no documentation from ancient Egypt concerning workshop practices in preparing funerary papyri, and such information comes from present-day observation alone. For example, recent studies of the papyrus of Ani [26] and the Greenfield papyrus [27] found examples of prefabricated sections that were subsequently joined together and it is interesting to find an analogous example of this practice on the papyrus of Tuy.

CONCLUSIONS

The study of the Talbot and Salt fragments following their recent conservation has shown more similarities between the two parts of the papyrus than was suggested by their appearance before treatment. The distances between sheet joins on the Salt papyrus are 38.7 (including insert), 40.9, 40.6 and 38.5 cm. While the Talbot papyrus has only one complete sheet in the centre, this is very similar, measuring 39.2 cm; the sheets to either side are incomplete but nevertheless measure over 30 cm. Compared to other funerary papyri the distances separating the sheet joins are quite large, although the papyrus of Amenhotep mentioned above, which has a similar date to Tuy’s papyrus, also has widths of about 40 cm between joins. Measurements taken recently from later papyri show that much narrower sheets were used to make up the roll: for example, the papyrus of Ani from the Nineteenth Dynasty (c.1275 BC) has sheets averaging 31 cm in width [3; p. 32, No. 24], and those on the papyrus of Nesitanebisheru from the early Twenty-second Dynasty (c.930 BC) measure 20 cm [3; p. 50, No. 145].

It is possible to estimate the full height of the Salt fragments by looking at what is missing from the figures in frame three, which leads to the conclusion that they were the same height as the Talbot part of the papyrus, namely 36 cm. Both parts of the document have annotations in the margins at the sheet joins, the palette of colours is very similar and palaeographical study indicates that the texts were written by the same scribe. Due to the considerable losses the papyrus has suffered, there is no direct join between the Salt and Talbot fragments and so there is no definitive proof that they originate from the same papyrus, but the evidence presented above suggests that they did indeed form part of one substantial roll.

As they are now presented, the two parts of the papyrus of Tuy can be seen without the distracting Victorian repairs that featured in the Salt frames, while the fragments that once belonged to Talbot have now been correctly aligned, Figure 10. The appearance of this Book of the Dead is much improved and unified and, more importantly, the papyrus is in a better state of preservation to be studied and enjoyed.

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MATERIALS AND SUPPLIERS

- Acetone: VWR International Ltd, Magna Park, Hunter Boulevard, Lutterworth, Leicestershire LE17 4XN, UK, uk.vwr.com
- Bondina and Paraloid® B72: Conservation Resources (UK) Ltd., Unit 2 Asheville Way, Cowley, Oxford OX4 6TU, www.conervation-resources.co.uk
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• Japanese papers: Mizokawa Shoten, Kuromondori-Nakadachiuri-Sagaru, Kamigyō-ku, Kyoto-City 602-8251, Japan
• Schmincke Horadam® Aquarell watercolours: L. Cornelissen and Son Ltd, 105 Great Russell Street, London WC1B 3RY, www.cornelissen.com
• Wheat starch paste: Masumi Corporation, 4-5-2 Sugama-Toshima-ku, Tokyo 170-0002, Japan, www.masumi-j.com

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NOTE

1. These early photographic processes are very closely related. Talbot used light-sensitive silver chloride to form an image on paper, a photogenic drawing. The calotype is a paper negative bearing an image produced by exposing a layer of sensitized silver iodide to light. Multiple positive proofs on salted paper (silver chloride) can be made from the calotype [24].