Experiments in photography as the tool of art history, no. 1: William Stirling’s *Annals of the Artists of Spain* (1848)

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The following illustrations ... are indebted to the beautiful photographic process invented by Mr. Fox Talbot ... [If this little collection] should induce other abler contributors to the history of art to illustrate their works by the pencil of nature, – my end will be achieved, and my labour amply rewarded.


Much of the work published so far on the use of photography as a tool to facilitate knowledge of art has been on the establishment of photography’s role within the methodology of the teaching of art history as a new academic discipline in the nineteenth and early twentieth century, and, to an extent, its use in museums and museology.¹ Recent research has also highlighted the importance of photographic archives for the historiography of art.² More studies are needed on the use of photography in books on art, not just those intended for the academic art history market but also those aimed at a wider public. This article focuses on the pioneering role of William Stirling’s *Annals of the Artists of Spain* (1848), which consisted of three text volumes, but whose fourth volume of Talbotype illustrations made this the first photographically illustrated book. In spite of the many limitations surrounding its production and availability, this experimental volume pointed the way towards making art more widely accessible through photographic reproduction in books.


² Notably the series of conferences on *Photo Archives*, held at the Courtauld Institute, London, the Kunsthistorisches Institut In Florenz – Max-Planck-Institut, and the Institute of Fine Arts, New York University, 2009-11.
The publication of such a volume at such an early date within the historiography of both photography and art history reflected the enormous popularity of experimental science during the first half of the nineteenth century, and its impact on approaches in arts as well as sciences.

William Stirling (later Sir William Stirling Maxwell), 1818-78, was not a professional art historian and was never involved in the teaching of the new discipline. He inherited family wealth and estates at Keir and Pollok in Scotland, and became MP for Perthshire. Nevertheless, as author of the *Annals of the Artists of Spain*, the first scholarly art history of Spanish art in English, which set art in Spain for the first time within wider social, cultural, religious and political contexts, and also as collector of probably the largest collection of Spanish art ever formed in Britain, he was certainly a dominant force in raising awareness of Spanish art there in the mid-nineteenth century. In addition, he was deeply committed to widening public access to art, not only through his interest in the methods and reliability of reproductions of art in books, but through his activities as a trustee of many of the boards of public museums, such as the British Museum, the National Gallery, and the National Portrait Gallery, and his membership of innumerable arts committees, as well as a frequent lender to many of the major public exhibitions of art from private collections which were held with increasing regularity during the second half of the nineteenth century, such as the Manchester Art Treasures exhibition of 1857.

Stirling’s decision to attempt a history of Spanish art was made in 1843, just a few years after he had graduated from the University of Cambridge, and following Grand Tours of Europe and the Middle East which had included two brief visits to Spain in 1841 and 1842. His research for his remarkably ambitious *Annals of the Artists of Spain* included a short research trip to Spain in 1845, and visits to public and private art collections in the United Kingdom and continental Europe. His notebooks show that, from 1844, he was collecting materials for the illustrations, including etchings, lithographs and engravings, as well as painted copies after original paintings. Spanish art was still much less well known in Britain than Italian art, which helps to explain Stirling’s concern with the illustrations to the *Annals*. Some of the materials collected were used for the photographic illustrations, and others for those reproduced by conventional, mechanical techniques of wood and steel engraving in the three volumes of text, which were more copious than was frequently the case in many books on art at that date. Each copy of the supplementary volume contained sixty-eight Talbotype prints which were the first.

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5 T-SK28/10-11, Travel Notebooks of William Stirling, Stirling of Keir Papers, on deposit to Glasgow Archives, Mitchell Library, Glasgow (hereafter T-SK followed by catalogue number). I am grateful to Archie Stirling of Keir for permission to cite this material.
photographic illustrations of Spanish paintings, prints and sculpture, by artists including El Greco, Velázquez, Murillo, Zurbarán, and Ribera, in addition to Goya prints, and examples of architectural designs and book illustrations.⁶


The process of gathering illustrations coincided with the appearance of William Henry Fox Talbot’s *The Pencil of Nature*, 1844-6, and his *Sun Pictures in Scotland*, 1845, the very first photographically illustrated books. In the former, Talbot presented a whole range of possible applications of his new process, including the reproduction of drawings (Fig. 1), prints and sculpture, as well as decorative arts such as ceramics and glass. Stirling’s openness to experimentation with techniques of reproduction of images may also have owed something to his experience as an undergraduate at Trinity College, Cambridge in 1835-9, where his tutor was William Whewell, whose scholarship spanned both arts and sciences, and whose two major works on inductive science were published around that time.⁷ In addition, Stirling


was already developing a special interest in illustrated books by the early 1840s, and went on to build up probably the largest collection of emblem books and festivals books ever formed by a single collector, as well as an outstanding collection of books on art.\(^8\)


Attempts at reproducing art by photographic means had begun earlier in the century, when the Frenchman Nicéphore Niépce experimented with a photomechanical technique, which he called ‘heliography’, of reproducing engravings after paintings, achieving his best results with an engraving of Cardinal d’Amboise in 1826 (Fig. 2). He went on to collaborate with Louis Jacques Daguerre on further experiments in photography. Talbot’s photographic experiments began in

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the 1830s, his first account of his discovery of ‘the art of photogenic drawing’ being given at the Royal Society in London in 1839, shortly after news of a breakthrough by Daguerre was reported in France. The latter’s process, called Daguerrotype, gave beautiful, sharp results of subjects which often included architecture or art. However, each Daguerrotype was a unique image, whereas Talbot’s discovery, which he continued to work on and announced in 1841, used a negative-positive process, named Calotype or Talbotype, which made multiple photographic images possible for the first time.9

The *Annals* Talbotypes were photographed in 1847-8, under Stirling’s direction and at his cost, by Nicolaas Henneman, Talbot’s principal pupil and assistant, who ran the first photographic establishment at Reading from 1844 and subsequently the Sun Picture Rooms which opened in Regent Street in London in 1847. Two Talbotype photographs make up a composite view showing photography taking place in the back garden of the Reading establishment (Fig. 3).

![Fig. 3 The photographic establishment at Reading, c. 1846, salt prints. Bradford: National Media Museum. © Science and Society Picture Library.](image)

The scenes were clearly set up for the occasion, but they provide valuable insight into how Talbot and Henneman must have wanted their photography establishment to be seen, including the type of business and the processes that went on there. The left-hand scene (Fig. 4) shows a portrait being taken (probably by Talbot) of a live sitter, whilst another photographer, probably Henneman, takes a photograph of a sixteenth- or seventeenth-century portrait, no doubt an engraving or a painted copy after an original painting.10 In the right-hand scene (Fig. 5), Henneman is shown photographing a plaster cast of the *Three Graces*. In the background, assistants tend racks of frames containing photographic negatives and prints being ‘printed out’ by sunlight (Calotype or Talbotype photographs were also called ‘Sun Pictures’), and, in the foreground, another instrument, probably a

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9 Both negatives and positives were made of writing paper treated by Talbot. The use of sodium chloride for the positives, obtained through contact with the negatives, led to these being referred to as ‘salt prints’ or ‘salted paper prints’. For the process, see especially Larry J. Schaaf, *Out of the Shadows: Herschel, Talbot and the Invention of Photography*, New Haven and London: Yale University Press, 1992; and Mike Ware, *Mechanisms of Image Deterioration in Early Photographs: The Sensitivity to Light of WHF Talbot’s Halide-Fixed Images 1834-1844*, London and Bradford: Science Museum and National Museum of Photography, Film and Television, 1994.

10 The original painting has not been identified, though it has been suggested to be Dutch, Flemish, English or Spanish. If the last, a direct link with the *Annals* Talbotypes would be most likely.
focimeter, to assist with focusing, is manipulated. The views probably date from shortly before Stirling’s commission for illustrations for the *Annals*, and it therefore seems particularly significant that two out of the three photographic shots shown being taken are demonstrations of photography of art.

Fig. 4 The photographic establishment at Reading, c. 1846, salt print. Bradford: National Media Museum. © Science and Society Picture Library.

Fig. 5 The photographic establishment at Reading, c. 1846, salt print. Bradford: National Media Museum. © Science and Society Picture Library.

See Larry J. Schaaf, ‘Brief historical sketch’, in William Henry Fox Talbot, *The Pencil of Nature*, Anniversary Facsimile, New York: Hans P. Krauss Jr., Fig. 11, p. 20, who suggests the scenes were possibly staged by Benjamin Cowderoy, an agent who did promotional work in 1846. With thanks to Professor Schaaf for further discussion of these scenes.
The difficulties experienced in producing the Annals Talbotype, however, reveal the many limitations the new process presented as a method of reproducing art. Chemically, Talbotypes were unstable, and are thought to have been affected by a number of factors, including daylight, and the paper, water and glue used. One

12 The possible role of these factors, alone and in combination, has been much discussed but, to date, relatively little evidence, including scientific data has been published. The key text remains Ware, Mechanisms of Image Deterioration. The results of scientific analysis of comparable examples of early photography are presented in Katherine Eremin, James Tate and James Berry, ‘On the chemistry of
of the commonest forms of image deterioration is that of peripheral fading (Annals Talbotypes nos. 42-3; Figs. 6-7). In the case of The Pencil of Nature, production was halted after six fascicles containing twenty-four prints had been issued, whilst the problems of supplying 6000 salt prints after the Hagar in the Desert drawing (Fig. 1) for inclusion in the 1846 volume of the Art-Union highlighted the fact that the process was not yet adapted to mass production. The Annals Talbotypes were produced on a much smaller scale – only fifty presentation copies of the illustrations volume were printed and given to family, friends, fellow Hispanophiles and bibliophiles, and libraries – but again problems of deterioration are known to have begun immediately. It is believed that these may now be slowed only by imposing stringent conditions of display and conservation. Thus, whereas the text volumes of the first and second editions of the Annals are easily accessible in libraries worldwide, few, even specialist scholars, have seen the Talbotypes volume.

The rarity and fragility of the Annals Talbotypes volume largely accounts for the fact that most art historians today remain unaware of its existence or significance, despite the growing interest in the historiography of art, including the role of photography. Its early date and experimental nature means that it has been seen as belonging to a prehistory of the histories of art, photography and photographic book illustration, and as such, if not entirely ignored, it has tended to merit only passing reference in the introductory surveys or remarks of most histories of these subjects. Here, it is argued that these are the very reasons for the importance of this example of the so-called ‘incunabula’ of photographically illustrated books. As will be seen, Stirling himself regarded the volume as a failed experiment. In science, however, every experiment can be regarded as valuable by its very nature, and as contributing to subsequent experiments and advances.

A collaborative project between the University of Glasgow, the National Media Museum in Bradford, and the Prado Museum and the Centro de Estudios Europa Hispánica in Madrid is currently examining the context and significance of the Annals Talbotypes. Its outputs will include an ‘ideal’ facsimile, available in printed and electronic versions, which will aim to show, as far as possible, how the photographs would have looked when first produced, based on the best surviving examples. Given that the reproduction of art is the central concern of the project, that authenticity of reproduction will be the principal goal of the facsimile, just as it was for Stirling and Henneman in the original edition, and that image capture for the facsimile will involve the use of the latest digital technology to reproduce the earliest viable negative-positive photographic process, it is clear that a number of key issues surrounding the concept, methodology and ethos of facsimile itself will

John and Robert Adamson’s salted paper prints and Calotype negatives’, History of Photography, 27:1, Spring 2003, 25-34. Scientific analysis of a representative group of examples of the Annals Talbotypes and related material is planned as part of the current project.

Twenty-five copies of each of two sizes were produced, octavo (225 x 135 mm) and large paper (280 x 180 mm)

The term was applied by the photographer and photographic historian Helmut Gernsheim to books illustrated with original photographs, as distinct from photomechanically produced prints: see his Incunabula of British Photographic Literature: a Bibliography of British Photographic Literature, 1839-75, and British Books Illustrated with Original Photographs, London and Berkeley: Scolar Press, 1982.
require thorough interrogation and documentation in the material accompanying the facsimile.

One of the most important resources being exploited for the project are the holdings relating to Talbot and Talbotypes which are now in the National Media Museum. These include the unbound photographic prints that remained in Henneman’s studio after the fifty copies of the *Annals* Talbotypes volume were made up. Many of these salt prints were clearly studio rejects, either because they were too light, too dark or had other chemical or physical defects, such as tears, hairs or fingerprints, though these too are now valuable for the insight they provide into the process and the workings of the studio. Not all were regarded as failures, however – then or now: indeed, a large number are in far better condition today than those in surviving bound volumes, apparently because they have not been exposed to the same range of causes of environmental and chemical damage. It is, therefore, anticipated that a number of the Talbotypes reproduced in the facsimile will be taken from National Media Museum holdings.


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15 None of the negatives have been found to date, though two Calotype negatives survive of Spanish art subjects photographed by the Scottish photographers D.O. Hill and Robert Adamson for Stirling’s *Annals* but not included in the final volume. These are in the Scottish National Portrait Gallery, Edinburgh, and the University of Glasgow Library, Department of Special Collections. On the work by Hill and Adamson for the *Annals*, see Hilary Macartney, ‘The Reproduction of Spanish Art: Hill and Adamson’s Calotypes and Sir William Stirling Maxwell’s *Annals of the Artists of Spain* (1848)’, *Studies in Photography*, 2005, 16-23.
For example, Fig. 8 shows one of the Museum’s salt prints of an etching and aquatint by Goya from his *Tauromaquia* series published in 1816 (no. 63). It retains good, rich tone and, although Talbotypes were sometimes criticized for lacking clarity and definition, here the process provides a satisfactory reproduction. In most of the bound volumes, however, the Talbotype prints of this subject have suffered substantial fading. The existence of viable spares in this and other cases seems to have been due to worries at the time about the unpredictability or lack of permanence of the results. Thus, a printed slip that survives in some of the bound copies states that: ‘The faulty impressions in this volume may be exchanged for others, on application to Mr Henneman, 122 Regent Street.’


17 Examples of the printed slip include one in the copy formerly in the Gernsheim collection and now at the Harry Ransom Centre, University of Austin, Texas.
A number of the untrimmed salt prints in the Museum’s collection also provide fascinating evidence of the circumstances and physical environment in which the photographs were taken. Fig. 9, for example, shows a drawing by M. Tessin after a Self-Portrait in oils by Pedro Orrente (no. 12). This was one of the illustrations for the *Annals* commissioned by Stirling in 1844-46, when the original (now in the Prado) hung in the Louvre as part of King Louis-Philippe’s *Galerie espagnole*. Here, the drawing is shown pinned to a board, rather like the portrait in the view of the Reading establishment, and in this case backed by a copy of *Punch*.

![Drawing by M. Tessin after a Self-Portrait in oils by Pedro Orrente](image)


The materials Stirling gathered together for the experimental photographic illustrations were mostly small original works of art and copies, mainly on paper. In addition to those he had bought or commissioned, he also borrowed drawings by Murillo and Alonso Cano, as well as books and prints, and even two little polychromed sculpture relief panels by Juan Martínez Montañés (no. 13; Fig. 10),
from his friends Richard Ford, author of the *Hand-Book for Travellers in Spain* (1845), and Ralph W. Grey, with whom he had travelled in Spain, and to whom the Talbotype illustrations volume was dedicated. The group of small-scale collector’s items that were photographed directly certainly represented a significant achievement, but the many other cases that involved photography of copies, rather than originals, are more difficult for modern students and scholars to comprehend.

A total of twenty-three of the *Annals* Talbotypes are in fact of engravings, etchings or lithographs after oil paintings, five are of painted copies, and a further five are of drawings of paintings or details of them. In this context, however, it must be borne in mind that photography in museums was not yet practical. Though photography did not always have to take place outdoors, as the Reading establishment scenes imply, good daylight and long exposures were required. Even today, oil paintings in particular are notoriously difficult to photograph, due to the difficulties of lighting and reflections, which are exacerbated if paint or varnish is in poor condition, and there were additional problems at the time in rendering tonal variations accurately through monochrome photography. All this helps to explain why there were no direct photographs of oil paintings in the *Annals* Talbotypes, though four of the copies were painted in oils, and Henneman did photograph two small Goya oil paintings for Stirling which were not included.

For Stirling and his contemporaries, the possibility of using photography of engravings or lithographs after oil paintings as a means of reproduction of art represented a potential advance on conventional practice, since those mechanical methods invariably relied on copies as intermediate processes. Thus, both Niépce, in his heliographs of an engraving after a painting, and Talbot, in his Talbotypes of a lithograph after a drawing, had sought to create multiple images which eliminated the risk of further inaccuracy through mechanical copying. The prints photographed as illustrations to the *Annals* had a similar purpose, but the particular selection made by Stirling reflected a number of his other interests and aims in the book. He had a great interest in printmaking and considered the provision of information on its history in Spain to be part of the broad scope of the *Annals*. Prints after paintings were valued by him as evidence of the reception of individual artists and their works. Thus, the engraving of *St Ferdinand* by Matías Arteaga (no. 53) was included because it was ‘probably the first plate ever executed from a picture by Murillo’. The engraving appeared in Fernando de la Torre Farfán’s *Fiestas de … Sevilla* (1672), which recorded the collaboration of artists in Seville on the ephemeral art and architecture for the celebrations for the canonization of Ferdinand III of

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18 On the problems of rendering colour and tonal variations, see Fawcett, ‘Graphic versus photographic’, 190, 192.
19 The oil paintings and copies are discussed in Hilary Macartney, ‘William Stirling and the Talbotype volume of the *Annals of the Artists of Spain*’, *History of Photography*, 30:4, Winter 2006. No photographs of oil paintings had been included in the *Pencil of Nature* either.
20 He included a catalogue of prints after Velázquez in his monograph of the artist, see William Stirling, *Velázquez and his Works*, London: John Parker, 1855. He updated this, and added prints after Murillo, in his *Essay towards a Catalogue of Prints Engraved from the Works of Diego Rodríguez de Silva y Velázquez and Bartolomé Esteban Murillo*, London: privately published, 1873. The catalogues were based on his own collections.
Castile in 1671. The author’s praise of Murillo did much to promote the artist’s fame within his own lifetime. Another of the Annals Talbotypes, this time of an etching of Christ at Emmaus by José del Castillo after Mateo Cerezo (no. 60) provides a record of a lost painting.

Amongst the most fascinating examples of prints after paintings in the Annals Talbotypes are those of four of the early etchings by Goya after Velázquez’s equestrian portraits (nos. 26-9), which serve as illustrations of the work of both artists, and as a record of the later artist’s admiration for his seventeenth-century predecessor as court painter. Together with the Tauromaquia subjects (nos. 63-5), there were a total of seven Goya prints reproduced in the Talbotypes volume. Two of the Caprichos were also illustrated as wood engravings in the text volumes, and meant that the Annals provided an important boost to the artist’s fame in Britain.
Goya and Ribera were amongst the few Spanish painters who were also accomplished printmakers. The latter’s etching of Don John of Austria (no. 37; Fig. 11) though it is also related to a painting of the same subject, was included for its own sake, as ‘the finest and most valuable of the etchings of Ribera’. 22 Thus, although it is true that the inclusion of so many prints after paintings in the Annals Talbotype volume was due to the limitations of the photographic techniques at the time, and that Stirling was simply using material to hand in order to explore the potential of the new medium, to dismiss the importance of these examples because they are not direct photographs of the original paintings would be to fail to grasp the richness and complexity of the relationship between printmaking and painting which Stirling was seeking to represent through their illustration.

In his preface to the volume, Stirling explained his objective in commissioning the private edition of illustrations using ‘the beautiful photographic process invented by Mr. Fox Talbot’: in addition to hoping it would be of interest to the friends and fellow scholars who were its principal recipients, he also expressed the hope that ‘if it should induce abler contributors to the history of art to illustrate their works by the pencil of nature, – my end will be achieved, and my labour amply rewarded’. 23 The rationale for the inclusion of each of the illustrations was given in the preface to the volume and the list of contents. Many of the Talbotypes illustrated specific examples and points in the text volumes, whilst the rest related more broadly to the textual content. But because only fifty copies of the extra volume were printed for private distribution, compared with 700 copies of the text volumes offered for sale, no references to the Talbotype illustrations were given in the text, and thus, the relationship between text and image was not as close as would ideally have been desirable. 24

Nevertheless, Stirling did find the opportunity, in the text of the Annals, to call for photography to be more widely applied to the purpose of recording art. This occurred in his discussion of the important series of eight large paintings of Biblical subjects, painted by Murillo for the lateral walls of the church of the Hospital of Charity in Seville, which were considered to be the artist’s finest works. Five of these had been plundered by the French General Soult during the Peninsular War in the early nineteenth century and subsequently dispersed. As Stirling complained, it was now difficult to imagine the series together, and to judge ‘the relative merits of each ... as only two of them, the Moses and the St. Elizabeth have been engraved’. Stirling illustrated these two in the Talbotype volume (nos. 42-3; Figs. 6-7). Three of the series were at that time in London, in the collections of the Duke of Sutherland and George Tomline respectively, and Stirling, therefore, called on these owners to have the paintings engraved or photographed:

The graver, or the beautiful invention of Mr. Fox Talbot, which, with still greater precision than the graver, ‘stamps, renews and multiplies at will’,

22 Stirling, Annals, IV, vii.
23 Stirling, Annals, IV, v, viii.
would not only preserve them for all time, but would enable many humble lovers of art to enjoy their beauties, and appreciate the genius of Murillo.25

Here, Stirling foresew wider access, as well as documentation, as a valuable function of photography of art, and in this instance of dispersal of an important series of artworks, he also appeared to anticipate André Malraux’s twentieth-century concept of the musée imaginaire or ‘museum without walls’, or today’s virtual museum projects, as a way reuniting the series through photography or engravings.26

Stirling’s enthusiastic endorsements of Mr Talbot’s ‘beautiful invention’ and its potential to preserve artworks ‘for all time’ were presumably printed before its shortcomings in the case of the Annals Talbotypes had become apparent. After that experiment, he was understandably wary of including photographic illustrations in his other books, although in 1853, he had twelve presentation copies of the third edition of his bestselling history, The Cloister Life of the Emperor Charles the Fifth printed with eighteen photographic illustrations. However, it is clear from his correspondence that he and his circle, notably including fellow print collector Charles Morse, were using photographs as visual records and art historical tools from the 1850s on, most commonly to record and track down prints.27

During the same period, major improvements in photographic equipment and techniques were taking place, most notably with the introduction of glass-plate negatives and the wet collodion method of Frederick Scott Archer in the early 1850s, which replaced the paper negatives of the Calotype process. Nevertheless, photography of art remained fraught with difficulties. Apart from official museum photographers, such as Roger Fenton at the British Museum, and Charles Thurston Thomson at the South Kensington Museum, photographers who obtained permits to photograph paintings inside museums were generally given them only for photography in situ, where visibility was often far from ideal: in many cases, pictures were hung from floor to ceiling, and lighting was poor.28 For these reasons,

25 Stirling, Annals, 866 and n.3. The painting of Moses Striking the Rock is still in situ. The St Elizabeth of Hungary was given by Soult to the Louvre (then called the Musée Napoléon). It was returned to Spain and, at the time Stirling was writing, was hung in the Royal Academy of Fine Arts in Madrid. Later it was restored to its original site in the Hospital of Charity. Abraham and the Angels and the Return of the Prodigal Son were sold by Soult to the Duke of Sutherland. The former was sold in 1948 and is now in the National Gallery, Ottawa. The latter was donated to the National Gallery, Washington in 1952. The Healing of the Paralytic Man at the Pool of Bethesda was bought by George Tomline in 1847 and hung in his London house at no. 1 Carlton House Terrace. It was donated to the National Gallery, London in 1949. The Liberation of St Peter was still in the Soult collection when Stirling was writing. At the sale of the collection in 1852, it was purchased for the Hermitage, St Petersburg. The quote ‘stamps, renews and multiplies at will’ is from Samuel Rogers, Epistle to a Friend (1798).


27 Examples of references to photographs of prints are included in T-SK 29/8/91, letter from Charles Morse to Stirling, 11 October 1858; and T-SK 29/10/159, Morse to Stirling, 27 October 1860.

28 Roger Fenton became the first official museum photographer when he was hired as ‘Photographer to the British Museum’ in 1853. On early photography in the Prado Museum, see Leticia Ruiz Gómez, ‘Velázquez fotografiado. Primeros “enfoques”’, in Velázquez en blanco y negro, ed. José Manuel Matilla, Madrid: Museo del Prado, 200, 129-44; and at the National Gallery, British Museum, and South Kensington Museum (now the Victoria and Albert Museum), see Hamber, 333-468.
the practice of photographing prints or painted copies after original paintings in fact continued to be common for many decades. An album of photographs, dating from c. 1853-60, of art and architecture in Spain, which is now in the National Library of Scotland, includes nearly twenty images of paintings by Murillo in Seville, and one Raphael in the Prado Museum in Madrid.\textsuperscript{29} Close examination of these shows that all are of copies after the originals, though the captions give no indication of this, possibly because the compiler was unaware of this fact, or it was so common as to be unremarkable. By the same token, a number of photographs dating from the early 1850s, of paintings in the Prado (then the Royal Museum) in another album, now in Glasgow University Library, are stamped with the words ‘CUADROS ORIGINALES DEL REAL MUSEO’ (original paintings from the Royal Museum), presumably to draw attention to this still remarkable achievement.\textsuperscript{30}

The commercial production of photographically illustrated art books was likewise becoming possible in the 1850s.\textsuperscript{31} In addition, advances were being made in photomechanical techniques which would soon allow photography to be combined with conventional, and increasingly industrial printing methods. Talbot patented the predecessors of photogravure, called ‘photographic engraving’ and ‘photoglyphic engraving’ in 1852 and 1858 respectively, although these processes did not become commercially viable till later. Other photomechanical techniques were patented in the 1860s, and the carbon print at last brought permanence to photographic prints. These developments hastened the end of the period of the ‘incunabula’ of photographically illustrated books, as the time-consuming manual activity of pasting photographic prints into books could be replaced, for all practical purposes, by photomechanical printing.

Despite his ambivalence towards photographic illustrations following his experience with the \textit{Annals}, Stirling returned to experimentation with the reproduction of images later in his life, when he published a number of private editions of illustrated books in the late 1860s and 1870s. The most lavish of these was \textit{Examples of the Engraved Portraiture of the Sixteenth Century}, published in an edition of fifty copies in 1872, in which he explored the comparative merits of a number of the new photomechanical techniques. In his preface, he complained: ‘It has long appeared to me that the facilities for the reproduction of interesting prints with which modern science has provided us have not been improved, as they might be, by those whom it chiefly concerns.’\textsuperscript{32} His aim, therefore, was to encourage the use of ‘processes by which fine and authentic engraved portraits may be perpetuated and disseminated in their integrity’. The volume combined his interest in sixteenth-century history and portraiture with his considerable knowledge and appreciation of printmaking on the one hand, and his concern to maintain traditional standards of book design with a desire to harness new techniques of

\textsuperscript{29} National Library of Scotland, Phot.el.1 (Phot.1a.12). I am grateful to Lee Fontanella for drawing to my attention this album, which was compiled for a member of the Sandeman family.

\textsuperscript{30} University of Glasgow, Special Collections, Dougan Add. 24. With thanks to Lee Fontanella for help in deciphering the stamp.

\textsuperscript{31} Hamber, 143.

reproduction of images on the other. In it, he presented the results of his research into the techniques, their various practitioners throughout Britain, with respective costs and illustrations of their work. Stirling also used it as an exercise in trying to match specific modern processes of reproduction to traditional print techniques, and as a record of the technology of reproducing images at a time when it was changing rapidly. Thus, he observed: ‘these examples ... were the best results that could be obtained at the time by processes which are every month undergoing improvements, and ... they may hereafter be instructive as recording the state of the arts by which prints were reproduced in 1870, 71, and 72.’

In the same publication, Stirling looked back with resignation at what he had evidently come to regard as a failed experiment:

24 yrs ago, in 1848, I published a work entitled Annals of the Artist of Spain, and sought to illustrate 50 copies of it with photographic copies of prints, drawings, and a few pictures. I believe it was the first attempt in this country to apply photography to purposes of book illustration ... One entire impression showed such suspicious signs of evanescence, even before it was issued, that it was cancelled and another substituted, the prints having been washed so carefully, that their permanence was believed to have been secured. The belief, however, was speedily dispelled by the event; in a few years they too began to fade; and I suppose that few copies of the collection now consist of much more than so many pieces of tawney-clouded paper.

He would be astonished that any copies survive at all today, and at the attention now being paid to them.


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33 Stirling, Engraved Portraiture, v.
34 Stirling, Engraved Portraiture, v.