

FINAL REPORT - RSVP CURRAN AWARD

Recipient

Francesca Strobino, PhD candidate in Photographic History, PHRC, De Montfort University

Project title

Investigating William Henry Fox Talbot's Experiments in Photomechanical Printing

Duration

2021-2022 (extension granted by Dr Jennifer Phegley)

Overview of the project

I used the RSVP Curran Fellowship to investigate William Henry Fox Talbot's experiments in photomechanical printing as part of my PhD project (AHRC collaborative doctoral partnership, De Montfort University – National Science and Media Museum). My research explores the historical contexts of photography's invention as a printing technology within nineteenth-century scientific discourse. Utilising the under-researched collections of Talbot's photomechanical experiments, the project re-evaluates ink photographs as an essential chapter in photographic and printing history.

William Henry Fox Talbot is commonly well known as one of the inventors of photography (1839) and the calotype process patented in 1841. These technologies changed the way of seeing and reproducing the world around us and had a great impact on Victorian men and women. However, what is less known and investigated is Talbot's research towards finding a mechanical way to reproduce photographs with presses and printer's ink. Talbot realised rather soon the great potential photography had to illustrate scientific and popular publications. In 1844, he started publishing his first serial photographic editorial venture, *The Pencil of Nature* (1844-1846), the second publication ever to be illustrated with actual photographs, following the pioneering work of Anna Atkins and her self-published *Photographs of British Algae: Cyanotype Impressions* (1843-1853). However, *The Pencil of Nature* soon highlighted how illustrating publications with actual photographs was problematic for several reasons. Indeed, each photograph had to be hand-glued on the page making the publication highly expensive and, after a short period of time, several images faded as photographic positives were too sensitive to sunlight.

Proved that photographic prints were unsuitable to illustrate publications (especially those with strong circulation), Talbot started experimenting in new directions. Between 1852 and 1877, he patented two processes: the photographic engraving (1852) and the photoglyphic engraving (1858), both focused on applying photography to printing technologies. These two processes use photochemistry to convert photographs (chemical images) into ink images, much more stable and compatible with period printing means. Talbot's research was led by the desire to find an effective and commercially profitable way to illustrate publications with photographic images and to give a concrete proof of the many aids that photography would provide to several branches of science – such as botany and astronomy.

One of the several proof of the interplay between photography, science, and the publishing marketplace is Talbot's collaboration with the Royal Astronomer Charles Piazzi Smyth and the publication related to Smyth's expedition in Tenerife. After the publisher and editor Lovell Augustus Reeve published *Teneriffe* (1856) - the popular outcome of Smyth's scientific expedition illustrated with actual photographs - Smyth turned to Talbot and his photoglyphic engraving process to publish his scientific report. Thanks to Talbot's correspondence, we know that John Hutton Balfour, the editor of the journal *Transactions of the Botanical Society* (Edinburgh), asked Talbot to try his new process using one of Smyth's photographs of Tenerife. Both Balfour and Smyth were persuaded that photography was the best technology to illustrate Smyth's scientific findings and decided to take a leap of faith in Talbot's new process, the photoglyphic engraving. However, the outcome published in *Transactions of the Botanical Society* (Edinburgh) did not satisfy Talbot as Smyth's original negative (wet collodion on glass) was too small and not dense enough for Talbot's printing process. A better result was achieved in two illustrations of Smyth's report of Tenerife's expedition published in the *Astronomical Observations Made at the Royal Observatory, Edinburgh*, vol. XII, 1855-1859. Finally, five years after *Teneriffe*, Smyth's photographs were reproduced with Talbot's photoglyphic engraving process and circulated in 250 copies. Smyth's case testifies an important early attempt to introduce Talbot's technology in scientific periodical publications as a faithful means to illustrate scientific work and circulate it among scientists.

When Talbot died in 1877, he was still actively working to perfect his photomechanical process which – in spite of all his tenacity and efforts – was still too complicated to be consistently applied to commercial publications. His research will be brought to a successful commercial use only two years after his death by Karl Klíč which patented the photogravure process (1879), one of the finest printing processes able to reproduce photographs in high-quality.

The current project provides a new and nuanced narrative of Talbot's photomechanical experiments focusing on the materials and the materiality of his practice. The thesis provides in-depth analysis of case studies selected to unpack specific aspects including the application of experimental photomechanical processes to the book and magazine industry, the boundaries between scientific and everyday life, the materials and professionals involved in the practice. Talbot's case gives us a good example of how the narrative of a well-known protagonist of photo history needs to be challenged. In particular, photo historians as well as science historians need to give more space and scholarly attention to all those practices and experiments labelled as "failures" and often neglected but that are actually critical to have a better understanding of what informed a practitioner's research. In Talbot's case, his photomechanical research tells us much of how certain materials moulded and developed his view of photography, either on paper, glass, or metal. It also shows how there was no separation between chemical photography and ink photography, as they were part of the same research to reproduce images of reality on a support, permanently.

Narrative of Grant Activities and Outputs

During the supported period of time (January 2021 – December 2022), I researched and wrote a complete draft of three chapters of my PhD thesis titled "Investigating William Henry Fox Talbot's Experiments in Photomechanical Printing". The chapters analyse the following topics and case studies:

Chapter 3 titled *Experimental surfaces. On Talbot's photography on metal* (ca. 16.000 words) argues that by looking into Talbot's manipulation of metal matrixes we can unveil how the materiality of the experimental practice shaped and informed his research. I focus especially on exploring the feedback between empirical knowledge and intuition, highlighting how making and testing specimens produced a specific kind of experienced and skilled knowledge which played a critical role in the designing of Talbot's early photomechanical experiments.

Chapter 4 titled *'Desirable perfection': the Photoglyphic Engraving Process (1858) and the Photographic News* (ca. 17.880 words) delves into the making of Talbot and William Crookes' project of presenting for the first time Talbot's photomechanical specimens before the general audience and on a large scale through the pages of the weekly magazine *The Photographic News*.

Chapter 5 *Practical hands. Talbot's photographic and photoglyphic engraving processes through printers' eyes* (ca. 12.000 words) explores the photographic engraving process' development through the agency of the so-called "practical hands", printers and engravers, which assisted Talbot throughout his experimental practice.

The RSVP Curran Award helped me to undertake research critical for my PhD project, contributing to uncovering an aspect overlooked by the current literature. The research provided a significant insight into three key aspects:

- the making of photoglyphic prints in William Crookes' *Photographic News* (1858)
- Talbot's challenges with patent law
- Talbot's experiments in photomechanical printing from the perspective of printmaking professionals

One of the main goals of my project is to investigate the contingent needs from which Talbot's photomechanical experimentation arose. For this reason, an essential and complementary aspect of my archival research is to assess the impact of these new technologies on the period editorial and publishing marketplace. In order to do so, it is vital to interrogate Victorian periodicals which provide a vivid insight on the pitfalls and successes of the application of early photomechanical processes to editorial projects at the end of the 1850s. Investigating the relationship between photography and Victorian periodicals is pivotal to have a better understanding of the reproductive technologies available at the time and the struggle to reach commercially successful photomechanical processes able to circulate photographic images on the printed page. Talbot's long commitment (more than 25 years of research) to provide an effective photomechanical process to illustrate periodicals, and other sorts of publications, attests the urgency for new forms of illustration able to combine photographic faithfulness and traditional reproductive means (such as printer's presses and ink). During the supported period of time, I focused chiefly on the case of the *Photographic*

News which provided a critical insight into the interplay between Talbot's photomechanical experiments and the publishing industry.

A critical aspect of my archival research consists of examining the largest number of surviving proofs and matrixes, which provide a vivid insight into the pitfalls and successes of Talbot's experiments. By comparing and analysing working material, notes, and correspondence held in the British Library, Wellcome Collection, and Victoria and Albert Museum, my research seeks to provide a better understanding of the role played by tacit knowledge, materials as well as professional networking in the making of early ink photographic images. During the supported period of time, I used part of the award to support the following research trips:

- 10 days in February 2022: National Science and Media Museum (Bradford), Wellcome Collection (London), British Library (London), Bodleian Libraries (Oxford), Victoria & Albert Museum (London)
- 7 days in October 2022: Bodleian Libraries (Oxford), Lacock Abbey (Lacock, Chippenham), British Library (London)
- 9 days in February 2023: British Library (London)

The survey and investigation of these collections casted light on various aspects related to Talbot's photomechanical works, the development of these techniques, and the many connections between Talbot and the coeval scientific and editorial community.

Due to COVID-19 travel restrictions, it was not possible for me to travel from Florence, Italy, to the UK in 2021.

During 2021, I used the Curran Award to gain access to online academic publications (journal articles, books) and to request scans of archival material I could not otherwise access. This includes material from the New York Public Library, The British Library, Sterling and Francine Clark Art Institute Library, DMU Archives and Special Collections, Musée des arts et métiers.

I presented the outcome of my research on several occasions, including talks and academic conferences:

AA 2021

Lunchtime Seminars, CHSTM, University of Manchester | online | 09.02.2021

Paper: *Materials that shape ideas: fabrics and Talbot's early photomechanical experiments*

De/Reconstructing photomechanical reproduction. Don't press print, University of West of England's Centre for Fine Print Research and the Royal Photographic Society | online conference | 09.09.2021

Paper: *Reproducing Nature: W H F Talbot's and Alois Auer's printing processes (1852)*

Teatime Workshop. Research. Share. Discuss. | online | 12.11.2021

Paper: *"Desirable perfection:" the photoglyphic engraving process (1858) and the Photographic News*

AA 2022

Photographic Historical Society of Canada (PHSC) | zoom lecture | 15.06.2022

Paper: *Natural objects and the making of Talbot's photographic engraving process (1852)*

Tunes and Textiles Webinar, History of the Printed Image Network (HoPIN), Centre for Printing History and Culture - Birmingham City University and the University of Birmingham | online | 25.10.2022

Paper: *Using Fabrics: WHF Talbot and the Making of the Photographic Veil (1852)*

Researching Electricity and Photography, Photographic History Research Centre, research seminar | De Montfort University | 02.11.2022

AA 2023

A New Power: The Symposium, Bodleian Libraries, Oxford, UK | 18.03.2023

Paper: *Materiality and 'Substance': Talbot's experiments in photomechanical printing*

Archival Absences, An Incomplete History of Photography, photo-historical seminar for doctoral and post-doctoral scholars, Bibliotheca Hertziana, Max Planck Institute for Art History, Rome, Italy | 20–24.03.2023

Paper: *"[Blank?]"*. *Experimental Metallic Surfaces and Absent Images. On the Materiality of WHF Talbot's Photomechanical Practice*

(forthcoming) Photomechanical Prints: History, Technology, Aesthetics and Use, symposium, National Gallery of Art in Washington, DC | 02.11.2023

Paper: *Practical hands: WHF Talbot's photographic engraving process through the eyes of the printer George Barclay*

I wrote a few academic papers and essays, two of which related to the research supported by the Curran Award. One article is still in the process of being edited and printed and in both articles the support of the RSVP has been acknowledged:

(forthcoming) Francesca Strobino, *Reproducing Nature: WHF Talbot's and Alois Auer's printing processes (1852)*, proceedings of the conference "Don't Press Print De/Reconstructing photomechanical reproduction", Royal Photographic Society

Francesca Strobino, *Early Photographic Accounts at the Prima Riunione degli scienziati italiani (Pisa, 1839)*, "RSF. Rivista di studi di fotografia." n. 12, 2021 (printed 2022)

Archives and Collections

- Wellcome Collection, London – John Spiller and William Crookes collection (correspondence and photographs)
- Victoria and Albert Museum, London – Royal Photographic Society collection (photographs, photographic and photoglyphic prints, photoglyphic metal plates, glass plates)
- British Library, London – Talbot's photomechanical and photographic collection; secondary sources

- National Science and Media Museum, Bradford – WHF Talbot photomechanical collection
- Bodleian Libraries, Oxford - WHF Talbot photomechanical collection and personal archive
- Lacock Abbey, Lacock - WHF Talbot collection and museum

Financial Statement

Hotels and board: \$2200

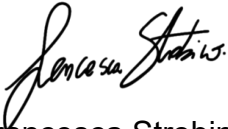
Transport: \$1800

Access to online journals and books: \$ 400

Scans and Photo Services: \$ 600

Total: \$ 5000

Florence 04/04/2023



Francesca Strobino