

Sites of Education and Experimentation

Calotype Knowledge, Calotype Practice: Photographing Sculpture at the Reading Establishment

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I. Nicolaas Henneman was frustrated. “I have been trying hard all day to get a good negative of the three graces ↗ by the new process...,” he admitted to William Henry Fox Talbot in December 1846, “...but cant [sic] get any thing under 2 minutes 20 seconds with the small camera, middle aperture, and the day fine for thiss [sic] time of the year. [S]o the Porportions [sic] you gave mee [sic] can not be right as I find them Slower than those I tried or we tried at Laycock.” (TC, 5805 ↗). One of many such exchanges between Talbot and Henneman, this letter provides a glimpse into the everyday experimentation that lay behind the development of photography in its first decade, and, more importantly for this short essay, the role that sculpture played in it. Although the photography of sculpture has been a focal point in art historical enquiry since Heinrich Wölfflin’s 1896 and 1897 essays, the literature usually addresses the problems of sculpture as seen through photography (Hamill/Luke 2017). Henneman’s letter above demonstrates, though, that sculpture was also at the centre of learning and advancing photography on paper as it changed through the 1840s.

Recipes for photography on paper and on the daguerreotype plate in the 1840s were constantly modified by their operators and by inventors hoping to add to the increasing tally of new photographic processes. Talbot’s new process in 1846, which Henneman was trying, used iodized paper and acetic acid, heat development by candle, and silver nitrate washing (TC, 5805, n. 7 ↗). Like so many experiments, it did not advance much past these trials. Although there is much to discuss about Henneman’s experiments for Talbot, in keeping with the theme of this special issue,

I will concentrate here only on the subject of his trials, the statuette *Three Graces*, because it occurs so often in both the *Correspondence of William Henry Fox Talbot* (TC) and the *William Henry Fox Talbot Catalogue Raisonné* (CR). Its frequent occurrence demonstrates quite well how the photography of sculpture formed an important part of photographic training as one of the key sites of reproduction.

II. Henneman’s biography is particularly important to his photographic practice, because it gave him unique access to photographic innovations and commercialization attempts as a trusted member of Talbot’s inner circle. Francesca Strobino points out that Henneman was, according to Talbot, a practical photographer rather than a theoretician (Strobino 2024, 229). Perhaps this is why Talbot trusted Henneman so much, and was willing to back his photographic career. Henneman, who was born in 1813 in Heemskirk has been curiously treated in photographic history. He is one of the few well documented working-class photographers of the 1840s, having begun in service to the Boreel family before continuing, again in service, with the Talbot/Fielding household in 1838 to become valet to Talbot (Asser 1997). Henneman operated two photographic businesses – the first in Reading from 1844 to 1851 and the second in London at Regent Street, with Thomas Malone from 1851 to 1859 (Schaaf 2016). He accompanied Talbot through France, England and Scotland, took part in the attempt to set up the first Calotype School in Paris, and made images as well as printing them for both *Pencil of Nature* and *Sun Pictures in Scotland*. ↗ | Fig. 1 | Henneman’s printing works at Reading, which have



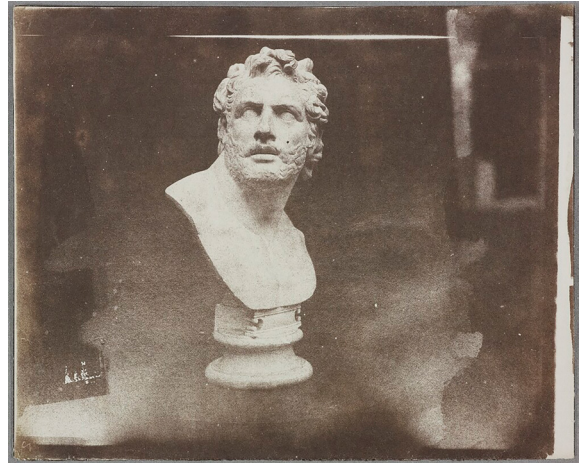
| Fig. 1 | William Henry Fox Talbot (attr.), *Sun Pictures in Scotland*, 1845. Here: Melrose Abbey. Salted Paper Print. The British Library. Schaaf no. 2794 ↗

since become known as the Reading Establishment, produced the prints for William Stirling's 1840s *Annals of the Artists of Spain* ↗ | Fig. 2 | as well as printing from negatives by Talbot and photographers like Calvert Jones and George Wilson Bridges. For Talbot, Henneman trained photographers in France, ran experiments, and later produced evidence for use in the trial of 1854 against Martin LaRoche (CR, 4277 ↗). It is therefore interesting that he is commonly written about in terms of failure – failure to achieve artistic renown as well as failure to succeed as a studio photographer. Although Schaaf writes about Henneman often as “critical to the story” of photographic invention, he declares Henneman “underwhelming” as a photographer, even though many of Henneman's images remain misattributed to Talbot or Calvert Jones or others (Taylor/Schaaf, 326f.). Closure of the London Calotype Rooms after eight years in business is also commonly seen as a failure in the literature, although it survived longer than many studios of the time. And yet, Henneman is so present in the early decades of paper photography that it is difficult to conceive of him as having failed.

III. He was undoubtedly one of the most photographed people of the 1840s, and a prolific photographer and printer in his own right. He is implicated in over a thousand returns in the *William Henry Fox Talbot Catalogue Raisonné* and appears, alone and in tableaux, in over 40 photographs, making his tall form instantly recognizable even when his facial features are obscured. Thus Henneman's letters, notebooks and photographs provide insight into the first decades of the practical end of photographic business and help us understand the everyday working practices of a trainee, and then professional, photographer who worked with both paper and glass plate photography. Cutting across his practice is his use of photography of artworks, including reproductions of sculpture.

Photographing sculpture played a signature role in the public announcements and subsequent public demonstrations of both the Daguerreotype and the Photogenic Drawing in 1839 and thereafter. For Talbot, various statuettes of the bust of Patroclus were favorite targets, appearing in 260 items in the *Catalogue Raisonné* (for instance, CR, 1469 ↗). | Fig. 3 | For

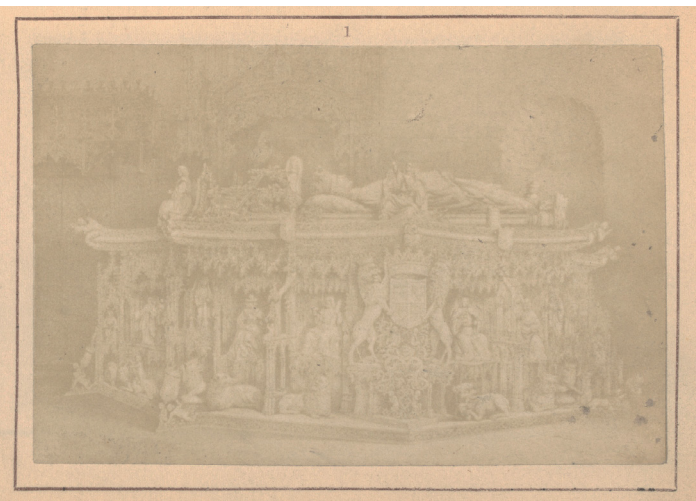
Henneman, the same could be said of the statuette of the *Three Graces*. He is linked to it through one of the canonical panoramas of early photography, The Reading Establishment, taken some time between 1844 and 1846 (see CR, 1595↗; CR, 1596↗). | Fig. 4 | Much has been written about these two photographs, debating whether or not Calvert Jones was the photographer, and whether or not the sitter in the middle is Talbot. No one debates the identity of Henneman, standing at the camera in the right hand image. What is notable is how Henneman has chosen to pose himself. In the panorama he is shown photographing the *Three Graces*. | Fig. 5 | The statuette was a small version of Antonio Canova's *Three Graces*↗, of which two were created between 1814 and 1817, now held at the Hermitage and the Victoria and Albert Museum. The fame of this grouping in the first half of the 19th century was undoubtedly spread by its association with the Bonapartes as much as promotion by the Duke of Bedford, who had commissioned the second version. Statuette copies of such famous sculptures were common and can still be purchased today. Its presence in the panorama, and Henneman's conspic-



| Fig. 3 | William Henry Fox Talbot (attr.), Bust of Patroclus. Schaaf no. 1469. Image provided by National Science and Media Museum↗

uous placement as the operator photographing the statuette copy, acts as a calling card for his photographic services. The photography of sculpture was testament to a certain level of skill and scientific sophistication.

IV. Photography of sculpture in the 1840s called for much more than pleasing placement of light and shade, although that was also critical. Early photographic materials like the Calotype were sensitive to the far violet and UV spectrum, that is, wavelengths of about 400 nanometers and shorter. In the practical copying of an object that had depth, like a sculpture, this sensitivity to shorter wavelengths meant that the visual focus differed from the chemical focus because the lenses used at the time were either flint or crown glass. Achromatic lenses that would solve the problem were little used in studios. Photographers were quickly made aware of the problem by finding that images that looked visibly perfectly focused on the camera focussing screen emerged less sharp. The problem was exacerbated by photographers attempting to shorten the exposure by enlarging the aperture, and thus narrowing the depth of field – the area in the photograph that appeared in focus. Larry Schaaf has observed that the small object just



| Fig. 2 | William Stirling Maxwell (Author) and Nicolaas Henneman (Artist), Talbotype Illustrations to *Annals of the Artists of Spain*, London 1847. Here: Gil de Siloe, flourished 1494, Marble Tomb of King Don Juan II. in the Chartreuse of Miraflores near Burgos. New York, Metropolitan Museum of Art, Object Nr. 41.145↗



| Fig. 4 | William Henry Fox Talbot (attr.), The Reading Establishment. Schaaf no. 1595. Image provided by the Metropolitan Museum of Art, New York ↗

by Henneman's heels is a focimeter, an instrument needed to reconcile the visual with the chemical focus (Schaaf 2016). The objects together clearly single out Henneman's photography as a matter of skill and competent science. The *Three Graces*, famous in Britain through the collection of the Duke of Bedford, circulated widely through reproductions, making them a focal point for artists and audiences, ensuring that the photograph also achieves a clever piece of marketing. It demonstrates Henneman's skills in making a photographic copy of sculpture and advertises that at this photographic studio 8 Russell Terrace in Reading, Mr. Henneman could provide photographic collectibles of a well-known sculpture owned by the 6th Duke of Bedford.

The desirability of the *Three Graces* as a subject for Henneman can be seen by the number of surviving images. Of the more than 50 photographs found in the *Catalogue Raisonné* of this particular statuette, there are 25 different views of the *Three Graces*. 20 of these are individual Calotype negatives and the remaining five are prints for which no negatives have yet been located. The different negatives may have been made at various times over the six years



| Fig. 5 | William Henry Fox Talbot (attr.), The Reading Establishment. Schaaf no. 1596. Image provided by the Metropolitan Museum of Art, New York ↗

Henneman ran his Reading studio, but most of them seem to have been made in the year of 1846 and into early 1847. Is it reasonable, then, to think of 25 negatives of a single subject as a meaningful number? Although there are very few business records from this era of photography against which to compare, the number of photographs appears high for a single subject, even one as commercially viable as this motif. To put it into context, by October 1845, Henneman claims he was holding 254 negatives for printing at Reading (TC, 5428 ↗). This number varied as he was constantly getting negatives from Talbot and sending them back to him at Lacock Abbey. Although tracking numbers in studios, either income or stock numbers is highly unreliable, it gives a point of reference that helps to quantify the size of Henneman's business.

He states in the same letter that it was also easier to get good quality prints if he printed in larger volume, no doubt from the stability of larger quantities of chemistry and routinization of large quantity printing. It is possible that all the surviving *Three Graces* negatives could have been taken on the same day. In April 1847, Henneman reported to Talbot that he had taken "about 20" individual portraits in a single

day at the bookseller George Lovejoy's premises in Reading (TC, 5924[↗]). We know, though, that in December 1846 Henneman was using the Three Graces as a test subject or a control for testing one of Talbot's new processes. None of the extant negatives appear to be consistent with this unnamed process, and instead appear to stem from other photographic sittings. Though the number of negatives may seem surprising there are two good explanations. The first is that many photographers used a similar and familiar subject for making experiments of new papers or chemistry. The known subject allowed a control against which to measure exposure times. For Henneman, though, there was also a commercial impetus. According to a contract agreed between him and Talbot, Henneman would receive a shilling for each negative of a unique subject. For several negatives of the same subject, like the *Three Graces*, he would receive a shilling for every three negatives, as long as the total number did not exceed 300, and as long as the negative was good enough to enter the stock held by the Talbotype Rooms, for printing to order. For making prints from the negatives, Henneman earned a shilling for 300 prints (Gill 1981). The making of negatives was a financial priority as they were much more valuable to Henneman. If the subject was one that was particularly lucrative, for instance, the portrait Henneman made of the author Mary Russell Mitford on 20 April 1847, it could be worth significantly more. Henneman estimated Mitford's portrait could be worth as much as £ 25 (TC, 5924[↗]; CR, 4589[↗]). Given the popularity of the *Three Graces*, it is possible to assume that Henneman considered it another such commercially valuable negative.

V. The idea set out in the panorama, that photographing sculpture was both culturally salient as well as an artistic and scientific virtue, appears suspiciously fully formed. Looking back to the years leading up to the opening of the Reading Establishment gives a clue as to where the importance of demonstrating the ability to photograph sculpture might have originated, namely in Talbot's 1843 attempt to commer-

cialize the Calotype in France. Nancy Keeler has ably described how Améline Petit de Billier, Talbot's friend and governess to his half-sisters Caroline and Horatia, helped to broker investment by Eugène Maret, the Marquis of Bassano, who acquired Talbot's Calotype patent in France and invested heavily in the Société Calotypique (sometimes called the Société Calotype) in a failed effort to commercialize it through a school, manufactory and printing works (Keeler 2002). Keeler did not have the luxury of a *Catalogue Raisonné*, however, which tells us much more about the training that was undertaken in this early school of Calotypists.

Édouard de Saint-Ours has carefully worked out that the training for photographers took place in a building on the Place du Carrousel in Paris (Saint-Ours 2018). In letters to Améline Petit de Billier, Talbot details that this new "École Normale" would allow budding Calotypists to practise their craft until they were proficient enough to both take views and teach others. He estimated ten days' training would suffice, though present-day Calotypists might beg to differ. Saint-Ours has identified several views taken from the proposed building, and a search of the *Catalogue Raisonné* reveals other recurring subjects. There are a number of photographs of the Cour Ovale at Fontainebleau[↗], which was also sent from Maret to Talbot for his approval in July 1843. Critical to the argument in this article, there are also copies of public sculpture and statuettes that could be the result of trainee Calotypists learning how to effectively use focus to isolate sculptural objects.

VI. In the *Catalogue Raisonné* there are ten negatives assigned five different Schaaf numbers of a bust of Minerva (or maybe Athena) on a cloth-covered table with some drapery arranged in the background (CR, 171[↗] | Fig. 6 |, 172[↗], 173[↗], 174[↗], 175[↗]). There are a further four negatives and five prints of the bust on a tabletop without a cloth, split between two Schaaf numbers (CR, 168[↗] and 169[↗]). It seems that the training of Calotypists included training on the copying of sculpture, as each of the negatives 171–175 differs slightly in the angle of the camera or

the bust, exposure time, and lighting. What is most notable in studying each negative is the variance in the effective use of depth of field. In the most effective Calotype negatives of the bust, 175↗ for instance, the drapery in the background has been effectively thrown out of focus, giving more definition to the bust in the foreground. In the less effective Calotype negatives, 174↗ is an example, the background drapery is equally in focus with the bust and tabletop, which has the effect of flattening the image and deemphasizing the sculptural subject. Eugène de Bassano also sent at least one of these images of the bust to Talbot for his evaluation in July 1843. Of the at least eleven images the Marquis of Bassano had sent, two images of the Oval Court at Fontainebleau, and the statue of Minerva↗, were, according to Talbot, “the only ones which are worthy of being displayed in public.” (TC, 4849↗) The same letter also confirms that Henneman was present at the training event at Fontainebleau, as he assured Talbot that they were all taken on the same day, despite some printers mistakenly writing the date of the making of the positive print, rather than the negative image (TC, 4849↗). Henneman, therefore, was well acquainted, as we already know from Schaaf’s and Keeler’s scholarship, with the 1843 Calotype school training, and also to the use of sculpture to train Calotypists. Talbot clearly indicated that a good calotype negative demonstrated photographic skill, stating of the print of Minerva: “The picture is very striking – It seems that the time of day was chosen very carefully for taking this object.” (TC, 4849↗)

VII. The Société Calotypique was not a success. By the autumn of 1843, Eugène de Bassano had diverted his energy and enthusiasm, and more importantly, his capital, to more lucrative ventures. But Talbot and Henneman took the experience they had gained and poured it into the founding of the Reading Establishment, which was ready to open very early in the year of 1844. Talbot had imagined the Société as a sort of photographic manufactory, where negatives were one sort of good, not to be sold, and prints and paper were more commercial products. The Reading Establish-

ment mirrored many of these beliefs, in Henneman’s contract, and in the positioning of Henneman in the panorama, of a photographer making negatives, and particularly making a negative of a sculpture.

His reputation was sufficient to entice John Walter, the owner of *The Times*, to commission him for a photograph of the bust of Catherine Mary Walter in May 1844 (TC, 5005↗). The bust was eventually a success, and used as a frontispiece in *Record of the Death Bed of C.M.W.* (Gilbert & Rivington, 1844; CR, 4116↗).

| Fig. 7 | With over a thousand images of sculpture in the *Catalogue Raisonné*, and the presence of many mis-attributed negatives, it is possible to imagine that Henneman’s legacy as a photographer of sculpture remains submerged. The importance of the photography of sculpture in his training and business operations is, however, very clear. Henneman used sculpture to test new processes, train new recruits, and position himself as a professional photographer of note in the rough and tumble emerging market of photography.



| Fig. 6 | Eugène Maret, Marquis of Bassano (attr.), Bust of Minerva on a round tabletop with patterned tablecloth and drapery behind. Schaaf no. 171↗



| Fig. 7 | Nicolaas Henneman (attr.), Copy of a bust of Catherine Mary Walter. Schaaf no. 4116 [↗](#)

Bibliography

TC: Letters from The Correspondence of William Henry Fox Talbot [↗](#)

05805: N. Henneman to WHF Talbot, 15 December 1846.

04849: HAJ Eugène Maret, marquis de Bassano to WHF Talbot, 26 July 1843.

05005: N. Henneman to WHF Talbot, 31 May 1844.

CR: Images from the William Henry Fox Talbot Catalogue Raisonné [↗](#)

171–175: Bust of Minerva on a round tabletop with patterned tablecloth and drapery behind. National Science and Media Museum.

168–169: Bust of Minerva on a round tabletop. National Science and Media Museum.

4116: Attr. to Nicolaas Henneman, Bust of Catherine Mary Walter, Houghton Library Horblit TyPh 805.44.8745

3846: Attr. to Nicolaas Henneman. National Science and Media Museum, 1937-2977/1; 1937-2977/2.

Asser 1996: Saskia E. Asser, Ongepubliceerde doctoraalscriptie kunstgeschiedenis: Nicolaas Henneman 1813–1898. Een vroege Nederlandse fotograaf in Engeland, Rijksuniversiteit Leiden, 1996.

Asser 1997: Saskia E. Asser, Nicolaas Henneman, in: PhotoLexicon 14/29, November 1997. [↗](#)

Gill 1980: Arthur T. Gill, Nicholas Henneman, 1813–1893, in: History of Photography 4 (4), 1980, 313–322. [↗](#)

Gill 1981: Arthur T. Gill, Nicholas Henneman, in: History of Photography 5/1, 1981, 84–86. [↗](#)

Hamill/Luke 2017: Sarah Hamill and Megan Luke (eds.), Photography and Sculpture: The Art Object in Reproduction, Los Angeles 2017.

Keeler 2002: Nancy Keeler, Inventors and Entrepreneurs, in: History of Photography 26/1, 2002/03, 26–33. [↗](#)

Saint-Ours 2018: Édouard de Saint-Ours, Doing the Django – and Finding Talbot's Calotype School in 1843, Paris, CR blog. [↗](#)

Schaaf 2003: Larry J. Schaaf, The Correspondence of William Henry Fox Talbot, Glasgow 2003. [↗](#)

Schaaf 2006: Larry J. Schaaf, Sun Pictures. From Talbot to Turner, New York 2006.

Schaaf 2016: Larry J. Schaaf, The Reading Establishment's Hidden Mysteries, 9 December 2016. CR blog. [↗](#)

Sterling 1840s: William Sterling, Annals of the Artists of Spain, 1840s. Copies: Metropolitan Museum of Art [↗](#) Yale Center for British Art [↗](#)

Strobino 2024: Francesca Strobino, Investigating William Henry Fox Talbot's Experiments in Photomechanical Printing, De Montfort University, PhD Thesis, 2024.

Taylor/Schaaf 2007: Impressed by Light: British Photographs from Paper Negatives, 1840–1860. Exh. Cat. ed. by Roger Taylor and Larry J. Schaaf, New York/Washington/New Haven 2007.

Wölfflin 1896: Heinrich Wölfflin, Wie man Skulpturen aufnehmen soll I, in: Zeitschrift für bildende Kunst, N.F. 7, 1896, 224–228. [↗](#)

Wölfflin 1897: Heinrich Wölfflin, Wie man Skulpturen aufnehmen soll II, in: Zeitschrift für bildende Kunst, N.F. 8, 1897, 294–297. [↗](#)