

*Images and artefacts: William Henry Fox Talbot and 'The Museum'*⁷¹

'It may suffice, then, to say, that the plates of this work have been obtained by the mere action of Light upon sensitive paper. [...] When we have learnt more, by experience, respecting the formation of such pictures, they will doubtless be brought much nearer to perfection; and though we may not be able to conjecture with any certainty what rank they may hereafter attain to as pictorial productions, they will surely find their own sphere of utility both for completeness of detail and correctness of perspective.'

From W H F Talbot's introductory remarks to *The Pencil of Nature*, Part I, 24 June 1844

Introduction

This short essay selectively traces the work of William Henry Fox Talbot (1800–77) in order to reflect on what can be tentatively described as photography's early 'museological dimension'. Here we find uses of photography evoking the methods and techniques associated with collecting and visual display, processes that began to change the perception and currency of artefacts in the nineteenth century that grew in parallel with the rise of the modern museum. To fully appreciate this brief glimpse into the proposed symbiotic relationship between 'The Museum' and 'The Photograph', we also need to consider how photography later operated within the museum's walls: not simply as an inventory of collections, but as an artefact in its own right in need of classification, narration and exhibition. This essay concentrates on Talbot's seminal book *The Pencil of Nature*, published between 1844 and 1846 (Colour plate 1), and the different forms of interaction between 'The Photograph' and 'The Museum'. Through the pages of *The Pencil of Nature* we encounter different patterns of collecting that begin to open up both personal and institutional narratives. These examples offer ways of thinking about facets of museum culture that photography participated in as well as represented.

The experiments of William Henry Fox Talbot during the 1840s mark the beginnings of this interaction. *The Pencil of Nature* is illustrated with actual photographs that looked to establish a history of the origins of photography, as well as to map out the various uses to which the new medium might be put. This book was remarkable not only for its boldness as an experiment in publishing, but also for its insights into the power of photography that seriously considered

the alterity of camera vision and the photograph as a new kind of visual document. In this respect it deserves to be considered the first 'philosophy' of photography. Talbot's evocation of 'The Museum' through the book serves to align his invention with an established culture, with recognisable values that could support the future development of photography.

The Pencil of Nature evokes aspects of both the classical and modern museum in many ways, that is, as a book that functions in relation to different traditions of collecting and classification. The organisation of knowledge within definable periods has been described extensively in the work of Michel Foucault.² Foucault's useful term *episteme* is valuable for locating where photography sits in the order of things as a medium whose conception and materialisation spans the late eighteenth and early nineteenth centuries. Epistemic shifts require points of change in the production and representation of knowledge such as that which appeared towards the end of the 1700s. For example, Talbot's work with photography came at a particular moment in the history of scientific enquiry as natural philosophy was slowly being replaced by disciplines and forms of investigation that marked the beginnings of modern science. Emblematic of the transition from the Classical to the Modern period, new methods of scientific observation and analysis emerged that emphasised empirical study and processing of facts as defining characteristics of the new paradigm. Photography, as a means of depicting and studying natural phenomena, offered a new form of visual evidence that coincided with the need to elucidate abstract principles as new disciplines emerged.

In 1830 the eminent chemist and pioneer of photography Sir John Herschel (1792–1871) published a treatise entitled *Preliminary Discourse on the Study of Natural Philosophy*. Here Herschel promoted the benefits of 'inductive reasoning', a set of principles heavily influenced by Baconian thinking. Herschel stated that 'natural philosophy consists of entirely of a series of inductive generalisations, commencing with the most circumstantially stated particulars, and carried up to universal laws, or axioms [...] and of a corresponding series of inverted reasoning from generals to particulars, by which these axioms are traced back into their remotest consequences, and all particular propositions deduced from them'.³ Herschel recognised, as did the distinguished Cambridge professor William Whewell (1794–1866), that given the complexity of the natural world, different disciplines were required in order to begin to make sense of a wide range of phenomena. Whewell completed his extensive *History of the Inductive Sciences* in 1837. Like Herschel, he was determined to investigate actual discoveries in science in order to reveal a pattern that might lead to a rigorous method. This was the world of observation in which photography in Britain emerged. Talbot was aware of these new ideas, but when it came to explaining the invention of photography

both he and Herschel used language and ideas connected with magic, wonder and the marvellous as well as the rationalism of modern science.

One of the more important aspects of Talbot's publication was to provide meaningful commentary on the inherent characteristics of photography that would be of benefit to art, science and commerce. In just under two years, a total of 24 photographic plates were published in six fascicles. Priced at 12 shillings, Talbot's 'imaginary museum' was open to a limited audience, an audience which could identify readily with the subject matter of each plate.⁴ In its pages, practical demonstrations of the utility of photography included its roles as: historical document, inventory, facsimile and artists' aid; and as a means of narrating history, of portraiture, book illustration and making enlarged or reduced copies of works of art, among other things. The choice of subject matter, the style of the prose, remind the reader of the interests of the author. Through its pages we get to glimpse something of Talbot's mind and, in contrast, something of the domestic environment of this polymath. This autobiographical element is integral to locating Talbot within the web of intellectual disciplines that informed his picture-making.

The range of Talbot's intellectual interests was important: they helped determine the versatility of photography, as did the immediate surroundings of his country estate at Lacock Abbey in Wiltshire. For example, his interest in ancient history can not only be traced through his written work on translation – *Hermes: or Classical and Antiquarian Researches* (1838/39) and *The Antiquity of the Book of Genesis, Illustrated by Some New Arguments* (1839) – but also in the plaster statuary he collected and photographed, whether in carefully arranged groups or in isolation. One might consider that these artefacts, by virtue of being photographed, that is, by being moved from one plane of experience to another, opened up other possibilities for interpretation. Talbot also used photography to aid translation of hieroglyphics and cuneiform scripts, contributing to the work of Samuel Birch for the British Museum with an example in 1846 of *The Talbotype Applied to Hieroglyphics*. It would appear that he understood and demonstrated the potential of photography in relation to 'The Museum' on many levels, but it is interesting to consider the speculative promise of photography and its role in collecting and the production of knowledge when first declared to an unsuspecting public in 1839.

The promise of order

By the 1840s, museums, along with telegraphy, the growth of the railways and the invention of photography, were among the most powerful expressions of modernity. As new experiences of time and space unfolded, the transience of modern life became more apparent. Institutions such as museums and technologies such as photography did, in principle, provide opportunities to intervene with the present

by practically and symbolically holding onto the past, creating a sense of stasis in the wake of growing industrialisation.

In Britain, six years after the public announcement of the invention of photography, parliament passed the Museums Act of 1845, a bill that started a process of radical modernisation of museum provision that was linked to wider social reforms. The Act followed on from a series of House of Commons investigations into the British Museum (1835/36) and the Department of National Monuments and Works of Art (1841). These changes influenced the organisation and ambitions of private collections belonging to regional philosophical and literary societies. Many of these collections formed the basis of regional museums. Here a blend of amusement and instruction still reigned, and collections were presented with the flavour of curiosity and wonder that defined the eighteenth-century cabinet. Talbot's collecting sensibilities were in many ways shaped by cabinets of the gentleman-amateur scientist and the virtuoso – a sensibility that was further refined by his trip around Europe during the 1820s in the manner of the grand tour.

What makes the invention of photography in relation to the evolution of 'The Museum' of further interest is that the initial image repertoire chosen by its inventor reveals an interest in taxonomic forms. Both Louis Jacques Mandé Daguerre, inventor of the daguerreotype process, and Talbot used collections of one sort or another to demonstrate the abilities of their new photographic discoveries.

Within six months of the first announcement of the new art of photography pronouncing Daguerre as the perceived inventor, a number of statements were made in the public press and in scientific journals concerning the importance of this invention. One of the most compelling accounts was given verbally by François Arago, Deputy of the East Pyrenees and member of the French Chamber of Deputies. He speculated on its value in recording Egyptian hieroglyphics, in providing study collections for artists and in mapping the heavens: 'With its aid the physicist will be able henceforth to proceed to the determination of absolute intensities [...] If needs be, this same photographic plate will give him impressions of the dazzling rays of the sun, of the rays of the moon which are three thousand times weaker, or of the rays of the stars.'⁵ Further potential applications included microscopy, topographical studies, meteorology, physiology, medicine and portraiture. In short, and using poetic and patriotic language, Arago suggested an encyclopedic transformation in the way the known and unknown world can be brought to order through photography.

Daguerre himself made several plates that emphasised other ways that poetically revealed the potential of the daguerreotype. Of particular interest is the plate made some time between 1837 and 1839 entitled *Arrangement of Fossil Shells*. Such an image corresponds with museological modes of display with its comparative arrangement of fossils arranged in three rows heightening similarity and difference

in shape, size, materials, organism and pattern. The implication is that its organising narrative appears consistent with the gaze of the palaeontologist or geologist.

In response to the announcement of Daguerre's direct-positive process on metal as 'the first' successful photographic process, Talbot set out in print what he anticipated the benefits would be for his own photographic process on paper, which he had worked on since the early 1830s. The events that led to Talbot's discovery and his thoughts for the future of the medium were initially announced by Michael Faraday at a meeting of the Royal Society on 31 January 1839. This was later printed as 'Some Account of the Art of Photogenic Drawing, or, the Process by Which Natural Objects May be Made to Delineate Themselves with the Aid of the Artist's Pencil'. Here Talbot described the beginnings of his experiments in 1834 with some historical background describing similar experiments undertaken by Wedgwood and Davy around the turn of the century. In the section entitled 'On the Art of Fixing a Shadow', his turn of language is flavoured with a sense of wonder and romanticism that can be aligned with natural philosophy. 'THE PHENOMENON which I have now briefly mentioned appears to me to partake of the character of the *marvellous*, almost as much as any fact which physical investigation has yet brought to our knowledge. The most transitory of things, a shadow, the proverbial emblem of all that is fleeting and momentary, may be fettered by the spells of our "natural magic", and may be fixed forever in the position which it seemed only destined for a single instant to occupy'.⁶ Here the 'marvellous' is evoked as a way of accounting for the sublime nature of photography, its origins beyond rational, scientific explanation. Indeed, when Herschel was sent specimens of Talbot's refined photographic process – the Calotype – in 1841, he too looked toward supernatural explanations of their origins: 'I read your circular received this morning giving an account of the Kalotype [sic]. I always felt sure you would perfect your processes till they equalled or surpassed Daguerre's, but this is really magical. Surely you deal with the naughty one.' This playful reference to a diabolical partnership conveys a sense of sheer wonder and the radical experience of seeing through photography.

Continuing this train of thought we can add several other descriptions that appeared in early commentaries connected with Talbot's invention – 'fairy pictures', 'natural magic', 'words of light', the 'black art', 'magic pictures' and 'natures marvels', were amongst the early vocabulary used to describe photography.⁷ On the one hand the photograph was a piece of 'natural magic' in the spirit of natural philosophy, on the other it was simply a series of chemical reactions – the 'action of light on sensitive paper' – when viewed through the values of inductive reasoning. In the spirit of the latter, Talbot stated in *The Pencil of Nature* that 'The picture, divested of the ideas which accompany it, and considered in its ultimate

nature, is but a succession of stronger lights thrown upon one part of the paper, and of deeper shadows on another.'⁸ Despite rigorous scientific explanations of the transformation of nature through the camera and chemicals, there still remained a sense of alchemical wonder for those early audiences of photography.

Talbot's promise of photography, outlined in his paper to the Royal Society, included possible uses in portraiture, experiments with colour, microscopy, camera images of architecture, and the copying of sculpture and engravings. In the gloomy light of an English winter, Talbot could not demonstrate his own process, but on 25 January 1839 Faraday displayed a selection of Talbot's early photogenic drawings dating from 1835 in the library at the Royal Institution. There are clear overlaps with Arago's ambitions for Daguerre's process here, and Talbot provided further examples in an exhibition in August 1839 at the Birmingham meeting of the British Association for the Advancement of Science. Four classes determined the arrangement of each one according to a different method of image production.⁹ Talbot's experiments and cultural ambitions for photography continued to grow, and his speculation was given further substance some five years later in *The Pencil of Nature*.

'A wonderful illustration of modern necromancy':¹⁰ *The Pencil of Nature* (1844–46)

'The plates of the present work are impressed by the agency of Light alone, without any aid whatever from the artist's pencil. They are the sun-pictures themselves, and not, as some persons have imagined, engravings in imitation'.

W H F Talbot, 'Notice to the Reader', *The Pencil of Nature*, 1844

In his patent of 1843, Talbot outlined a system for mass-producing prints for publication and later that year began to realise his idea of a print workshop in Reading. Here photographs were to be reproduced in large numbers for books and journals and also for sale as individual prints. The Reading Establishment opened in 1844 under the super-vision of Talbot's former valet, Nicolaas Henneman. Reading was equidistant between London and Lacock, a strategic decision that capitalised on the Great Western rail network, thereby linking photography to general systems of commodity production and distribution.

The introduction of photographs on to the printed page required a sophisticated set-up involving camera operators, printing and processing staff. The Reading Establishment can be regarded as the first experiment with production-line techniques to mass-produce photographs, albeit with limited success. The description of *The Pencil of Nature* as an 'illustration of modern necromancy' emphasised the departure of photography from traditional forms of graphic representation. However, it was still necessary to issue a statement

or 'Notice to the Reader' in order that the surface appearance of photographs should not be confused with older forms of reproduction. Photographic plates consisted of trimmed prints, tipped in and explained with a printed commentary. Owen Jones' elegant design for the front cover, rendered as a fine chromolithograph, lent it a contemporary relevance in terms of other processes and affiliations with the 'grammar of ornament'.

In his important and influential essay on the political and state use of photography as a means of surveillance, Allan Sekula describes both the 'threat and the promise of the new medium'. Sekula notes the expansion of culture through the modern museum and the anticipated expansion of its contents via photographic reproduction. 'In this context, photography is not the harbinger of modernity, for the world is already modernising. Rather, photography is modernity run riot.'¹¹ If indeed photography in the 1840s was a source of cultural anxiety as far as the sanctity and privileged position of 'The Museum' was concerned, then *The Pencil of Nature* did much to 'tame' the power of the photograph within an existing cultural hierarchy.

For *The Pencil of Nature*, Talbot created a series of reflexive displays in order to help define the material and visual characteristics of the photograph – its 'artefactual' dimensions. Such displays, especially where objects are concerned, ostensibly concentrate on material perceived as 'high culture' that essentially defines the social and intellectual worlds of Talbot. *The Pencil of Nature* goes to great lengths to describe what is specific about photography, how it differs from existing media. The plates serve to illustrate this by depicting architectural views, landscapes, copies of engravings, botanical specimens, collections of objects, still life and related genre scenes. What Talbot draws the reader's attention to is the vocabulary of photography, its scope, characteristics and historical development. A particular type of arrangement figures in several plates that Carol Armstrong describes as the 'inventorial photograph'.¹²

'From the specimen here given it is sufficiently manifest, that the whole cabinet of a Virtuoso and collector of old China might be depicted on paper in little more time than it would take him to make a written inventory [...] And should a thief afterwards purloin the treasures – if the mute testimony of the picture were to be produced against him in court – it would certainly be evidence of a novel kind.'

W H F Talbot, *The Pencil of Nature*, 1844

As a typical example of the 'inventorial photograph', *Articles of China* (Colour plate 2) consists of a series of shelves containing a number of ceramic items including porcelain figures, vases, teacups and saucers, fruit bowls and other examples of finely decorated tableware. The hypothetical scenario offered – as we know Talbot constructed

these tableaux in the grounds of Lacock Abbey in order to take the photograph in sufficient light – is a glimpse into the cabinet of a virtuoso. Refined taste and desirability infuse this seemingly perfunctory image illustrating the life of isolation that collectors impose on objects once removed from everyday use. But this is no virtuoso's cabinet; it is simply orchestrated to evoke elements of the private collection. However, this form of display, like many other examples of Talbot's improvised arrangements of silverware, glass, plaster busts and hats, connect the viewer with other modes of display that suggest commercial and domestic arrangements as well as those akin to museums.

Writing about this image, Allan Sekula described how it symbolised a 'new legalistic truth, the truth of an indexical rather than textual inventory'.¹³ Talbot's arrangement of ceramic items does indeed provide evidence relating to personal possessions, but it also provides evidence of another kind concerning the display rituals and tastes of the privileged classes. The picture is primarily about evidence and authenticity in terms of private ownership, and how photography as 'evidence of a novel kind' can legally protect those assets especially if produced in a 'court of law'.

Following the *Articles of China* is Plate IV, a similar composition entitled *Articles of Glass* (Colour plate 3). This serves to illustrate the hypothetical and arbitrary nature of Talbot's arrangement. Choreographed with an equal sense of symmetry to the previous plate, the commentary for this picture is concerned with light-sensitive characteristics of the photographic paper, fixing images of the glass that possess 'a very peculiar touch'. Putting Talbot's experiment in exposure and light sensitivity to one side, this is one of the most compelling images in *The Pencil of Nature*. It reveals the function of the display as elucidating details not only of the scene depicted, but of the means of its representation. Beautifully lit and meticulously arranged, the image is an example of the use of lighting effects as a narrative device, something well illustrated in the many studies of plaster statuary that Talbot staged. The repetitive uses of such arrangements in other pictures utilise a standardised display in which a wider range of objects is interchangeable. This formal presentation of domestic objects can be seen as the opposite of the more crafted tableaux representing hypothetical breakfast and tea scenarios.¹⁴

Moving to the next plate in *The Pencil of Nature*, we find a different set of variables at play that unite the photograph, the object and 'The Museum' at several levels. Plate XVII is of a plaster cast, a *Bust of Patroclus* (Colour plate 4). Made from the original marble bust held in the collections of the British Museum, *Patroclus* is quintessentially photographic in the spirit of Daguerre's fossils, with its indexical relationship to the mould from which it was cast. Statues and statuettes in marble and plaster were well suited to early photography.

They allowed Talbot to pursue experiments in luminescence, to exhibit the effects of light and enriching knowledge of photographic materials. The presence of the bust in *The Pencil of Nature* speaks of existing forms of reproduction and how artefacts based on originals were already in circulation within the homes of the privileged classes as tasteful copies. This object speaks also of Talbot's classical roots and interests in philology and antiquity.

The role of plaster statuary in these experiments with light can also be aligned with nineteenth-century aesthetic interest in chiaroscuro. In her essay 'Re-casting ancestry', Julia Ballerini explores the use of plaster casts of classical statuary in the work of Talbot, Daguerre and Hippolyte Bayard. She writes: 'The syntax changes from inventor to inventor, but all three men re-image their casts of characters according to a similar, almost childlike exercise in creating miniature worlds and characters of their own, worlds and characters that function as commentaries on larger worlds beyond such control.'¹⁵ The metonymic play here is reminiscent of museum techniques for conveying a sense of the past, later materialising in museums as the diorama and tableaux looked to animate objects and flesh out historical context. The miniaturisation of these copies of classical statuary coincided with the availability of photography, providing an interesting commentary on reproducibility and entrance of objects not only into private hands, but also into new public institutions such as 'The Museum'.

Once we appreciate that the objects Talbot used were drawn from the cupboards, collections and library of his home, we begin to see these objects in terms of the author's different relationship to what is represented. As an image, the *Bust of Patroclus* hovers in blackness, not situated in any recognisable form of display, not physically or pedagogically anchored. To some extent its location is anonymous beyond the book. Other casts include numerous studies of *Eve at the Fountain*, the female counterpart to the *Patroclus* series. But there were also many arrangements, bordering on the chaotic, with up to 19 casts including a bust of Napoleon, decorative urns, statues of Venus, cherubs and *The Rape of the Sabines*.¹⁶ Talbot may have never displayed these objects in the way that we experience them as pictures; we know that they are surrogate domestic scenes, but the visual display adopted would have touched a nerve with those with a passion for collecting.

Finally, it is worth considering another use of photography in the production of diminished or enlarged copies of artworks, as facsimiles. Plate XI, *Copy of Lithographic Print*, appeared in Part II of *The Pencil of Nature*. It is a copy of Louis Leopold Boilly's (1761–1845) print *Réunion de Trente-Cinq Têtes Diverses*, dramatically reduced in scale. The ability of photography to 'make copies as much larger or smaller than the originals as we may desire' was presented to the readers as an economy of labour by displacing the previous method of copying using a pantograph. The idea of miniatures and copies destined for private

collections is again evoked, but the alteration in scale, the change of emphasis on certain details resulting in a different experience of the original, produces a copy on one level and a completely different and unique object on another.

In terms of Talbot's discussion of time and detail one plate stands out. In the written commentary accompanying Plate XIII depicting *Queen's College, Oxford. Entrance Gateway*, Talbot notes: 'In examining photographic pictures of a certain degree of perfection, the use of a large lens is recommended [...] This magnifies the objects two or three times, and often discloses a multitude of minute details, which were previously unobserved and unsuspected.' This reference to an unconscious optics is revealing. Talbot continues: 'It frequently happens, moreover – and this is one of the charms of photography – that the operator himself discovers on examination, perhaps long afterwards, that he has depicted many things he had no notion of at the time. Sometimes inscriptions and dates are found upon buildings, or printed placards most irrelevant, are discovered upon their walls: sometimes a distant dial-plate is seen, and upon it – unconsciously recorded – the hour of the day at which the view taken.' The *Literary Gazette* wrote of this plate that it was 'a photographic wonder and memorial of realities', but if we follow Talbot's line such realities never entered the memory prior to the photograph being taken. The medium's forensic propensity is laid bare in this example, its ability to go beyond human vision, to see more, and by implication to know more.

This heightened sense of vision is given further substance in Plate VIII, *A Scene in a Library* (Colour plate 5), where Talbot describes the then hypothetical ability of photography to see in the dark, as the light-sensitive paper responds to the invisible end of the spectrum, infrared radiation. 'For, to use a metaphor we have already employed, the eye of the camera would see plainly where the human eye would find nothing but darkness.'¹⁷ This simple arrangement of books is the most curious of all the plates in *The Pencil of Nature*, an enigma of sorts. Among the books depicted to represent this glimpse into Talbot's library are *Manners and Customs of the Ancient Egyptians*, *Philological Essays*, *Miscellanies of Science*, *Poetæ Minores Græci* and the *Philosophical Magazine*. Mike Weaver has described Talbot's linguistic interests as the potential code for understanding the iconography of some of his pictures. Here a comparison is made between Talbot the empiricist scholar of words and things, and Talbot the picture-maker. 'One part of his mind functioned in terms of ideal categories and sought metaphysical relief in the metaphorical properties of language, whereas another part worked on the basis of historical evidence and valued hard facts.'¹⁸ André Jammes' proposition that this arrangement of books constitutes a self-portrait is an idea that, following Weaver's observations, has a greater resonance.¹⁹ Arguably, the library is the

symbol of the all-encompassing world from which Talbot's research and collecting impetus originates.

The 'museological dimensions' of *The Pencil of Nature* stem from Talbot's desire to position the photograph as a new type of collectible in a specially created context. *The Pencil of Nature*, therefore, constitutes a portable cabinet or museum; it is a display and a collection in its own right with each fascicle adding a new dimension to, and further comprehension of, the new art of photography. Indeed, one might, on reading this book now, see a new relationship between the objects and surroundings of Lacock Abbey, as elements that actively contribute to the transformation of Talbot's home into a museum. We also find many of these characteristics at work in the numerous albums of pictures that Talbot and family members assembled over the years. These forms of visual display for photographs blur the boundaries between the future family album of photographs, a trade catalogue and a mobile exhibition.

'The Action of Light on Matter': Talbot and the South Kensington Museum

By the 1850s, the ideas for photography outlined in *The Pencil of Nature* were gaining substance in the libraries, galleries and administrative departments of the modern museum. The proto-museum created in book form was now part of the institutional fabric of collecting, classification and display.

A significant moment that stimulated both the growth of museums and established a demand and cultural value for photography came in 1851 with one of modernity's most elaborate spectacles – 'The Great Exhibition of the Works of Industry of All Nations'. Housed in London's Hyde Park within one of the most impressive buildings ever constructed, it contained the first major presentation of photographs to the Victorian public. Exhibits were arranged according to country of origin rather than object type. In the British section, photography figured in two different classes, Class X (philosophical, musical, horological and surgical instruments) and Class XXX (techniques and applications of the fine arts). Following the exhibition a series of commemorative volumes were published in 1852 containing actual photographs of exhibits entitled *The Reports of the Juries*.²⁰ In that same year, the Society of Arts staged an exhibition of photographs that led to the formation of the Photographic Society in January 1853. Talbot exhibited several prints, including four from *The Pencil of Nature*. Thus were born different modes of exhibition for photographs, each celebrating the utility of the medium and its cultural ambitions within different forums for visual display.

Following the success of the Great Exhibition, the government Department of Science and Art began to set in motion new initiatives for improving museums. The role played by Henry Cole in these

improvements was considerable.²¹ As the head of London's School of Design in 1854, Cole initiated a number of reforms including methods of recording collections. At Marlborough House, London, former home of the School of Design, its curator J C Robinson complemented Cole's ambitions for photography. He wrote in a memorandum: 'The photographic art is calculated to be of extraordinary utility in extending the influence of collections [...] Perhaps the most valuable characteristic of this extraordinary process being the perfect accuracy with which objects of art can be copied, the absolute identity in every point of detail thus received being just that which literally unattainable by the draughtsman, whose individuality or personal mannerism is always more or less impressed upon his work.'²²

In 1857 the School of Design and its library became part of the matrix of collections that formed the new South Kensington Museum, with Cole as its first Director. This new museum was established to promote the understanding of manufacturing techniques and basic design principles. Its aim was to encourage creativity among design students by exposing them to a wealth of styles and techniques, often through photographic reproductions, in order to improve national standards of industrial design and enhance public taste. The remit of the museum was broad. It included not only collected examples of the applied arts but also objects of scientific interest: machinery and geological specimens that had been part of existing collections or acquired from the Great Exhibition. It was here that the first museum photographic department was established, dedicated to the reproduction of artefacts for museological and scholarly purposes. As an aside, it provided cheap photographic reproductions of a range of artefacts for popular consumption. Initially, photography was exhibited and collected as an example of new technologies. As Anne McCauley noted with reference to the different roles photography played in the South Kensington Museum, 'Regardless of the cross-cultural variations in photographic acquisitions, two facts remain constant: photographs acquired by institutions before the 1890s were in virtually all cases not considered as art, and they represented contemporary photographic production'.²³

Within a year of opening, the museum was host to the Photographic Society's annual exhibition. The exhibition hand-list included a catalogue of prints for sale that focused primarily on the reproduction of contents of several public and private collections, as well as portraits of notable 'Scientific Men' of the time and historical events like the launching of the *Leviathan*. Photographic copies of paintings, bas-relief, statuary, etchings and monuments were sold alongside studies from life. Thus photography began to develop its multifaceted relationship with 'The Museum'. All were examples of the 'Art' of photography.

Over the next 20 years photography grew in response to the needs of various departments within the museum, mixing the collections

management functions with examples of the artistic merits of the medium. Within the various departments of the museum photography illustrated technical and cultural progress, shifting between those mutable frames of reference as 'art-science'.

In 1882, the new Director of the South Kensington Museum, Philippe Cunliffe Owen, instigated the formation of a collection to illustrate the history of photography. Notices were posted in *The British Journal of Photography* encouraging readers and exhibitors at the Society of Arts at that time to gift 'valuable specimens' to the museum. This marked the beginnings of the national collection of which Talbot's work would become a significant part in 1934.²⁴ However, examples of Talbot's achievements were included in an exhibition that took place in the 1870s which was, in part, based on the model of international exhibitions begun in 1851.

The 'Special Loan Collection of Scientific Apparatus' was officially opened by Queen Victoria in May 1876. The flavour was internationalist, but not organised on the model of previous international exhibitions which were essentially commercially driven. Its aim was to cover developments in mechanics, physics, chemistry, geology, mineralogy, geography and biology. The essence of the display narrative was to reflect the historical development of scientific equipment and ideas, including examples of contemporary scientific apparatus.

Embedded within the subsection 'Photographic Apparatus', we find one of the more iconic objects on display, the lens used by Talbot to take a number of photographs for *The Pencil of Nature*. The lens illustrated the organisers' desire to include those precious items in private hands: 'For that Collection it was desired to obtain not only apparatus and objects from manufacturers, but also objects of historic interests from museums and private cabinets, where they are treasured as sacred relics.'²⁵ This marked the beginnings of an attempt to construct a technologically determined history of photography.

In general response to what was seen as an exercise in bad classification for the whole exhibition, *The Photographic News* declared that 'there is no evidence of any great rush of visitors to view the microscopes under glass shades, the long brass telescopes, and the thousand-and-one more or less unintelligible instruments',²⁶ *The Engineer* was equally disparaging.²⁷ In response to these criticisms, new editions of the catalogue were published, upgrading the exhibition narrative and further elucidating the significance of exhibits.

In a later edition of the catalogue we find a more detailed list of contents and a greater sense of context for photography within the category of 'Light'. Talbot's lens was actually located between 954a 'New Tourists photographic apparatus for taking Wet Plates without the use of Dark Tent' (made by Harvey, Reynolds, and Company) and 955 'Photographic Apparatus "Poor man's photography" for

wet collodion negatives of the smallest possible size but rapid and well defined'. 'They represent scenes inside the Great Pyramid using magnesium light, and outside it by daylight, including, in one of them, camels in motion'.²⁸

What are we to make of Talbot in this category? The matter-of-fact labelling suggests that Talbot's contribution had been surpassed, sitting as it did between the two applications of photography that are representative of its technological expansion: flash (literally seeing in the dark) and the popular consumption of the exotic and the growth or tourism. Talbot, represented by his lens in this context, proclaims the power of a technology over subjectivity, the power of photography as a product of optics and chemistry, rather than a consequence of human agency and the imagination. The lens is presented simply as a disembodied eye rather than the point of entry into a world of possibilities that *The Pencil of Nature* represented. Talbot's initial reflections on photography in this book were rarely thought about beyond an account of the medium's origins. One could argue that the entrance of photography into 'The Museum' reinforced ideas of a subject and object that was in hand; tamed and readily understood. But it is the shifting identity of the photograph, its simple but far-reaching mutability, that requires a more in-depth analysis concerning its 'museological dimension' that extends beyond the discussion here into the realms of memory, historiography and the mobilisation of photographs as evidence 'of a novel kind'.

To conclude, I would like to turn briefly to a book that celebrated the regenerative power of photography as part of a strategy to change the historical currency and cultural value of artefacts. In 1947, André Malraux (1901–76), writer, critic, revolutionary and at one time French Minister of Culture, published *Le Musée Imaginaire*, an account of a new type of museum experience created by virtue of photomechanical reproduction as halftone illustrations, presented in the form of the book. In translation, Malraux's *Le Musée Imaginaire* – 'the imaginary museum' – became the *Museum Without Walls*. Here photographs of artworks and other artefacts drawn from different genres, historical periods and cultures could be combined in various ways to offer alternative possibilities for representing history. It was meant to poignantly challenge the orthodoxy and boundaries of the twentieth-century art museum. The idea of a new museum space of objects constituted by their photographic surrogates made up of details of paintings, frescoes, religious carvings and altar pieces, and seen in isolation, literally drew attention to the process of reframing so central to Malraux's thesis. Here he writes: 'In our Museum Without Walls, picture, fresco, miniature, and stained-glass window seem of one and the same family. For all alike – miniatures, frescoes, stained glass, tapestries, Scythian plaques, pictures, Greek vase paintings, "details" and even statuary have become "colour-plates"'.²⁹ Here then,

photographic reproduction was the natural extension of the museum, the next phase in the mutation of the meaning of artefacts. However, the problem associated with Malraux's 'museum without walls' is the denial of photography itself: in his book it simply provides the means of organisation, a means of collecting and display. What is of particular interest is the analogy made between the photograph and the museum, and the importance of the specificity of the medium, its ability to literally reframe what it represents, a practice that it shares with 'The Museum'.

Photography's 'museological dimension' is complex, and possibly misleading here without detailed discussion of the change in the various ideological investments expressed through photography in the service of 'high culture'. But André Malraux's proposal for an 'imaginary museum' assumes that photography in no other form except the one he proposes can either contest or transform perceptions of artefacts or history. Indeed, as Douglas Crimp poignantly argues in his essay 'On The Museum's Ruins' (1980), Malraux's fantasy could only be sustained if photography as a cultural artefact was excluded: 'so long as photography was merely a vehicle by which art objects entered the imaginary museum, a certain coherence remained. But once photography itself enters, an object amongst others, heterogeneity is re-established at the heart of the museum; its pretensions to knowledge are doomed. For even photography cannot hypostatise style from the photograph.'³⁰

However, if we look to an archaeology of photography within the museum's walls and include applications such as record photography, photographs included as part of displays and photographic reproductions of artefacts in museum literature, other narrative strategies begin to emerge. Here we discover new spaces for the representation and creation of artefacts that are rarely discussed. The museum index card (Colour plate 6) bearing a photographic image is such an artefact, worthy of serious consideration as a point of entry into another way of thinking about collections, their currencies and the values that bring them into being.

Notes and references

- 1 This essay is based on my contribution to the Artefacts 4 conference. I am grateful to Dr Robert Bud of the Science Museum, London, for extending his generous support for this work by inviting me to take part.
- 2 Foucault, M, *The Order of Things – An Archaeology of the Human Sciences* (New York: Pantheon Books, 1971)
- 3 Herschel, J F W, *Preliminary Discourse on the Study of Natural Philosophy* (London: Longman, Rees, Orme, Brown and Green, 1830) p104
- 4 For an indication of the type of individual who was able to experience Talbot's publication, see the list of notable recipients of *The Pencil of Nature*, courtesy

- of Talbot's mother, in Schaaf, L, *H F Talbot's The Pencil of Nature – Anniversary Facsimile* (New York: Hans P Kraus, 1989) p84.
- 5 Arago, D F, 'Report', reprinted in Trachtenberg, A (ed.), *Classic Essays on Photography* (New Haven, CT: Leete's Island Books, 1980), p21
 - 6 Talbot, W H F, 'Some Account of the Art of Photogenic Drawing, or the Process by which Natural Objects may be made to Delineate Themselves Without the Aid of the Artist's Pencil' (London: R and J E Taylor, 1839)
 - 7 'Magic pictures', 'natures marvels' and 'words of light', are taken from Talbot's notebook P in the NMPFT collection (March/April 1839). The term 'black art' was used in reference to photography by Sir David Brewster in a letter to Talbot dated 12 February 1839. Brewster had received a number of photogenic drawing specimens for his consideration and opinion. Taken from a letter in the Talbot collection at the NMPFT, Inv. No. 1937-4832. See also Schaaf, L (ed.) *Selected Correspondence of William Henry Fox Talbot 1823-1874* (London: Science Museum/NMPFT, 1994). 'Fairy pictures' is used by Talbot to describe the ephemeral quality of the landscape as seen through the camera obscura and to set the stage for his method of fixing such illusive and magical images. See Talbot's 'Introductory Remarks', *The Pencil of Nature* (June 1844), Part I.
 - 8 Talbot, W H F, 'Brief Historical Sketch of the Invention of the Art', *The Pencil of Nature* (London: Longman, Brown, Green & Longmans, June 1844) Part I
 - 9 The four classes were: Class I, 'Images obtained by the direct action of light, and of the same size with the objects'; Class II, 'Reversed images, requiring the action of light to be TWICE employed'; Class III, 'Views taken with the Camera Obscura'; and Class IV, 'Images made with the Solar Microscope'. A copy of this hand list is held in the Talbot collection at the NMPFT and contains a breakdown of the 93 individual images exhibited.
 - 10 *The Athenaeum*, 927 (2 August 1845), p771
 - 11 Sekula, A, 'The Body and the Archive', in Bolton, R (ed.), *The Contest of Meaning – Critical Histories of Photography* (Cambridge, MA/London: MIT Press, 1989) p343. This is a revised version of the essay that was originally published in *October*, 39 (Winter 1986).
 - 12 Armstrong, C, *Scenes in a Library – Reading the Photograph in the Book 1843-1875* (Cambridge, MA/London: MIT Press, 1998) p126
 - 13 Sekula, A, note 11, p345
 - 14 See Roberts, R et al., note 1, pp298-9.
 - 15 Ballerini, J, 'Recasting ancestry: statuettes as imaged by three inventors of photography', in Lowenthal, A (ed.), *The Object as Subject – Studies in the Interpretation of Still Life* (New Jersey: Princeton University Press, 1996), p53
 - 16 Roberts, R et al., note 1, pp163-4
 - 17 *A Scene in a Library*, Plate VIII in Talbot, W H F, *The Pencil of Nature*, Part II (January 1845)
 - 18 Weaver, M, 'Diogenes with a camera', in Weaver, M (ed.), *Henry Fox Talbot – Selected Texts and Bibliography* (Oxford: Clio Press, 1992), p11
 - 19 Jammes, A, 'A scene in a library', *Photographie*, 1 (Spring 1983), p50
 - 20 See 'Reports by the juries on the subjects in the thirty classes into which

- the Exhibition was divided' (London: printed for the Royal Commission by W Clowes & Sons, 1852).
- 21 See Haworth-Booth, M, *Photography: An Independent Art. Photographs from the Victoria and Albert Museum, 1839–1996* (Princeton, NJ: Princeton University Press, 1997).
 - 22 Robinson, J C, 'First report of the Department of Science and Art', 1854.
For a more detailed account of the evolution of the School of Design and its future exploitation of photography within the South Kensington Museum, see Physick, J, *Photography and the South Kensington Museum* (London: HMSO, 1975). See also Haworth-Booth, M and McCauley, A, *The Museum & the Photograph* (Massachusetts: S and F Clark Institute, 1998).
 - 23 See McCauley, A, 'Invading industry – the South Kensington Museum and the entry of photographs into public museums and libraries in the nineteenth century', in Haworth-Booth, M and McCauley, A, note 22, p30.
 - 24 With the devolution of the South Kensington Museum to become the Victoria & Albert Museum in 1899 and the Science Museum in 1909, the national photographic collection instigated by Cunliffe Owen was located in the Science Museum collections. In 1934, the Keeper of Chemistry, Alexander Barclay, visited Talbot's granddaughter (Matilda Talbot) at Lacock Abbey, accompanied by John Dudley Johnson, President of the Royal Photographic Society (RPS), to discuss the acquisition of W H F Talbot's estate. The RPS acquired significant items, but the Science Museum received a larger percentage of Talbot's notes, along with 6000 prints and negatives. Both the Science Museum and RPS collections are now part of the National Collection held at the NMPFT in Bradford.
 - 25 Science and Art Department, *Handbook to the Special Loan Collection of Scientific Apparatus* (London: Chapman & Hall, 1876), pxii
 - 26 *The Photographic News* (9 June 1876), p265
 - 27 *The Engineer* (21 July 1876), p47
 - 28 Science and Art Department, *Catalogue of the Special Loan Collection of Scientific Apparatus* (London: George Eyre and William Spottiswoode, 1877), p239
 - 29 Malraux, A, *The Voices of Silence* (New Jersey: Princeton University Press, 1978), pp44, 46
 - 30 Crimp, D, 'On the Museum's Ruins', *October*, 13 (Summer 1980), p82