FROM DARKNESS TO LIGHT
WRITERS IN MUSEUMS 1798-1898

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From Darkness to Light explores from a variety of angles the subject of museum lighting in exhibition spaces in America, Japan, and Western Europe throughout the nineteenth and twentieth centuries. Written by an array of international experts, these collected essays gather perspectives from a diverse range of cultural sensibilities. From sensitive discussions of Tintoretto's unique approach to the play of light and darkness as exhibited in the Scuola Grande di San Rocco in Venice, to the development of museum lighting as part of Japanese art's self-fashioning, via the story of an epic American painting on tour, museum illumination in the work of Henry James, and lighting alterations at Chatsworth, this book is a treasure trove of illuminating contributions.

The collection is at once a refreshing insight for the enthusiastic museum-goer, who is brought to an awareness of the exhibit in its immediate environment, and a wide-ranging scholarly compendium for the professional who seeks to proceed in their academic or curatorial work with a more enlightened sense of the lighted space.

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Chatsworth House, in Derbyshire, is the home of the Cavendish family, who were given the title of Dukes of Devonshire in 1694. For those of you who may believe you are not familiar with Chatsworth, let me remind you: Chatsworth was one of the models for Jane Austen’s fictional Pemberley in *Pride and Prejudice* (1813), and we know what an important part Darcy’s mansion plays in that novel. Indeed, it was while reading one of the best spinoffs based on Jane Austen’s novel, P.D. James’s *Death Comes to Pemberley* (2011), that I was first made aware of the quantity of candles needed in order to illuminate such a palace (all the crucial scenes in the novel spell out the inordinate number of candles required to provide light).¹

‘The Palace of the Peak,’ as Chatsworth was called, was one of the main stops for travellers on the Grand Tour of England in the nineteenth century. It had been built to be a statement of power and wealth, and a public space. It was also, in the nineteenth century especially, a sign that power in England could be married to progress and that meant an openness to new technology. Since the transformation of the original Elizabethan house into a palatial mansion in the late seventeenth century, the Dukes of Devonshire had opened it up not only to the aristocracy and their personal guests, but also, and liberally, to ‘the people’. As Black’s guidebook noted in 1868, ‘As the hour of eleven arrives, there are

generally several parties outside the richly gilded gates of iron, waiting for the time of admission.\textsuperscript{2}

In 1864 the American philanthropist and social activist Elihu Burritt introduced Chatsworth by remarking that ‘If England has no grand National Gallery like the French Louvre, she has works of art that would fill fifty Louvres, collected and treasured in these quiet private halls […] and in no other country are the private treasure-houses of genius so accessible to the public as in this.’\textsuperscript{3}

There were several attractions at Chatsworth: the grounds shaped by ‘Capability’ Brown; the gardens and Conservatory created by Sir Joseph Paxton; the gigantic Emperor Fountain; but its art collection, the work of generations of Cavendishes, and the richest to be found in a private residence in England, was certainly an important reason for visiting.

The gems of the Chatsworth collections were — and still are — the Old Masters’ drawings and the sculptures. The drawings had been mostly acquired by the second Duke (1672–1729), and by the fourth Duke (1720–64) by way of marriage (he married Lady Charlotte Boyle [1731–54], who inherited her father’s — the third Earl of Burlington’s — collection). The sculptures, some ancient but mostly modern, were acquired by the sixth Duke, the Bachelor Duke (1790–1858). Much admired and discussed by visitors were also the paintings, by old masters and modern artists, the frescoes, and the wood carvings by Samuel Watson and Grinling Gibbons.

With virtually no exception, nineteenth-century visitors were struck by the modern character of Chatsworth. As Baedeker’s handbook put it, Chatsworth was ‘redolent of modern’.\textsuperscript{4} Many American visitors like Margaret Fuller, typically looking for ‘old’ medieval England, were impressed by Chatsworth’s ‘fine expression of modern luxury and splendor’ but left cold by it; they felt that the palace was too big and too opulent.\textsuperscript{5}

\begin{footnotes}
\item[5] Margaret Fuller Ossoli, At Home and Abroad or Things and Thoughts in America and Europe (Boston: Brown, Taggard and Chase, 1860; 2nd ed. New York: The
One of the features of modernity and opulence was the abundance of light. Not only were artificial light, candles and lamps lavishly provided thanks to the Duke’s wealth, but there was also plenty of natural daylight regulated by the architecture of the building itself.

At a considerable cost, since at the time a tax on windows was still enforced, the Bachelor Duke opened additional windows that diminished the dimness of the Great Hall. He also replaced sash windows with single pane glass windows, which he considered ‘the greatest ornament of modern decorations’. These modern windows were admired by visitors both for the effect they created and for the views they admitted.

Daylight was also at the heart of the Bachelor Duke’s vision and his most important project, the new north wing that incorporated a sculpture gallery.

The Duke’s love for sculpture had bloomed during his 1819 visit to Rome. Here he had met and befriended Antonio Canova, and commissioned works from him and other sculptors of his circle. One of the Duke’s most powerful memories of this visit was being taken by Canova himself to see his recumbent Venus by torchlight, a fashionable thing to do, as Madame de Stael’s novel Corinne, or Italy (1807) confirms.

The Duke enjoyed this romantic aesthetic experience by torchlight, and replicated it at times at Chatsworth; nevertheless he developed different, more modern ideas about the perfect setting for his growing collection of sculptures. He worked closely with his architect Sir Jeffrey Wyatville, and together they created an innovative gallery that made the best use of daylight, and thus helped to inspire the later design of public museums in the nineteenth century. They did not

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choose marble but ‘humble’ opaque local sandstone for the floor and walls, thus avoiding reflected light. They designed skylights that took into consideration the fall of the directional natural light as the sun moves from east to west through the day, and which provided an even level of illumination from the top down. Thanks to this innovative illumination the statues were bathed in a soft light that created a very different effect from the dramatic shadows cast by lack of light or artificial light (see Fig. 16.1).

![Fig. 16.1 The Sculpture-Gallery, Chatsworth, drawing by Joel Cook (1882), in Joel Cook, England, Picturesque and Descriptive. A Reminiscence of Foreign Travel (Philadelphia: Porter and Coates, 1882), p. 84, https://www.gutenberg.org/files/29787/29787-h/29787-h.htm](https://www.gutenberg.org/files/29787/29787-h/29787-h.htm)

This feature of the light streaming down from the roof was so striking that it was commented upon by virtually all travellers and guidebooks. For example, here is a 1897 response by Alfred Henry Malan, a passionate photographer, writing for *The Pall Mall Magazine*:

> The lusterless sandstone-backing shows off the statuary to great advantage in any light: but the very best time for coming here, albeit in uncanonical hours, is about nine on a summer morning, for then the diffused sunshine flowing in through the clerestory windows imparts a beautiful bloom and tender half-tone to the sculpture, to be met with at no other time of day, though the electric light is said to be an effective substitute.

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10 Yarrington, ‘Under Italian Skies’, p. 50.
Malan visited Chatsworth before electricity was installed, but when work had already started, which may explain his final speculation (about which more later). What is interesting here is that sixty years after its creation, the illumination provided by the skylights for the statues was still surprising and noteworthy.

Ordinary visitors would see the sculpture gallery by day, and special guests could have access to it even before the canonical hour of 11am. However, the gallery was displayed also on the occasion of grand receptions, of which there were many at Chatsworth, and these typically took place in the evening. The skylights let in moonlight, of course. But until 1862, when coal gas works were built, lamps and candles were still the main source of night-time illumination.

In 1822 the Duke bought two magnificent candelabra, which were supplemented by static and hand-held candlelight. A candlelit tour of the sculpture gallery remained for some the ultimate aesthetic experience. Here is how William Haig Miller, the editor of *The Leisure Hour*, recounted a memorable evening visit in 1853:

> Another set of attendants were busily employed in lighting up the statue gallery [. . .] No one who has not seen statues by the well-disposed and artistically-managed light of numerous wax-tapers can have an idea of the surprising effects that are thus produced [. . .] There is an effect, as the rays of artificial light fall on the soft contour of the limbs, that daylight cannot give, and which seems almost to impart to the white cold marble some of the glowing and life-like attributes of painting.  

Whether one preferred the diffuse daylight that imparted ‘bloom and tender half-tones’ to the sculptures, or the more dramatic effects of candle light on marble, one thing is clear: thanks to the innovative illumination by day, and to the affluent consumption of candles and

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12 William Haig Miller, ‘A Day at Chatsworth’, *The Leisure Hour: a Family Journal of Instruction and Recreation* 83 (28 July 1853), 490–93 (p. 492). Miller must have had Madame de Stael’s Corinne in mind while visiting the gallery. Compare what Madame de Stael wrote in 1807: ‘Corinne and Oswald finished the day by visiting the studio of the great Canova. The statues gained much by being seen by torchlight, as the ancient must have thought, who placed them in their Thermes, inaccessible to the day. A deeper shade thus softens the brilliant uniformity of the marble: its pallor looks more like that of life’. Madame de Stael, *Corinne; or, Italy*, trans. by Isabel Hill (London: Richard Bentley, 1838), p. 138, https://books.google.co.uk/books?id=6kxgAAAACAAJ&printsec=frontcover&q=corinne,+or+italy+1838&dq=corinne,+or+italy+1838&hl=en&sa=X&ved=0ahUKEwjV8eaw4tjdAhXMKMAKHbCfBVkQ6AEILzAB
lamps by night, at Chatsworth visitors were offered a distinctive aesthetic experience.

Turning from the sculptures to the paintings: Chatsworth’s rich collection was on display throughout the palace. Visitors’ responses to paintings fell into two categories: admiration at their beauty, and complaints about the difficulty of seeing them, because of their position, and/or because of bad lighting.

In 1833 Orville Dewey observed that: ‘There is a large number of paintings […] a Henry VIII by Holbein, a Holy Family by Murillo, a piece by Salvator Rosa, but in so bad a light as to be lost, if it is anything.’

Sixty years later, Alfred Henry Malan had a different kind of complaint about the pictures in the Picture gallery: ‘It must be allowable just to remark that the perception of their merits will very largely depend upon that degree of skill with which you can manage to dodge those tiresome reflections from the opposite windows’.

Too little light could obscure the merits of a painting, but too much light could be worse.

Malan was more satisfied by the interplay between natural and painted light in the chapel ‘Verrio’s masterpiece […] seems cleverly painted to suit its position, the lighting of the composition, diagonally downwards from left to right coinciding with, but not wholly being due to, the slanting light from the end window’.

The Drawing Collection

Chatsworth’s Old Masters drawing collection spans European art from the Renaissance to the seventeenth century, and is still the most comprehensive private collection in England, second only to the Royal Collection.

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14 Malan, ‘Chatsworth’, p. 172. Malan does not specify which paintings were affected by the tiresome reflections, but at least with reference to the Salvator Rosa, the problem seems to have been still there in 2012, judging from Scottish artist Judith Bridgeland’s comments in her blog: ‘the lighting was really bad with lots of reflection’ Judith I. Bridgeland, ‘Salvator Rosa’s ‘Landscape with Jacob’s Dream’’, 18 July 2012, http://jibridgland.blogspot.co.uk/2012/07/
15 Malan, ‘Chatsworth’, p. 171.
It presented special lighting challenges. The drawings by Raphael, Michelangelo, Leonardo da Vinci, Parmigianino, Barocci, Dürer, Rubens, Van Dyck, Rembrandt, Lorraine and others were originally kept at Devonshire House in London, where scholars and artists were granted access to them. Later they were moved to Chatsworth. As the Bachelor Duke himself explained in a 1844 *Handbook*, the drawings ‘hardly ever saw the light of day in my Father’s time, nor in mine often, till I rescued them from portfolios, and placed them, framed, in the South Gallery below.’

In 1890 Baedeker praised the fact that the drawings in the Sketch Room were ‘admirably lighted.’ Unfortunately, light exposure causes fading and is the number-one enemy of drawings. In 1893 the drawings still hung in the gallery but were covered by protective blinds. In the early twentieth century they had to be put back in portfolios to prevent further fading. Deborah Mitford, one of the famed Mitford sisters who became the eleventh Duchess of Devonshire, has a fine description of what happened to the collection at this stage: ‘Granny used to get them out now and again, more as a housekeeper’s duty than for pleasure, flip through a box of Raphael’s, put them back, snap the fastener and say, ‘There — they’ve been aired for the year.’”

Let’s return to the time of the Bachelor Duke. He was an art lover and a connoisseur of sculpture, but in the *Handbook* he admitted that it was beyond him ‘to make any description of the merits of this rich and valuable possession.’ He added that in the task of cataloging the collection, he would value the help of someone he could really trust; not an amateur, who ‘would run into fanciful theories’ nor an artist, who ‘would be prolix’, but someone like Madame de Mayendorff (the wife of Baron de Meyendorff, Russian diplomat and ambassador). And it is at this point of his description that the Duke gives us a glimpse into what must have been the perfect enjoyment of a perfect drawing made possible by perfect illumination: Madame de Meyendorff, the Duke writes, ‘*used to copy here at daybreak in the summer mornings, and*’

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17 Ibid., p. 8.
her admiration of the sketches was without bounds’. One almost wishes a Carpaccio, or a Ruskin, had been there to catch forever this timeless moment when an art lover tenderly copied an old master in the luminous stillness of a summer dawn.

But aesthetics were constantly placed alongside innovation by the Cavendishes. On 29 November 1861 the Sheffield and Rotherham Independent announced: ‘The Duke has recently had gas works erected at the south end of the kitchen garden, for the purpose of lighting Chatsworth House, stables, &c. […] the house is now illuminated with gas throughout.’ Chatsworth’s Archives accounts show that the use of gas lighting dramatically reduced the expenditure for oil and candles, and that gas was used into the 1920s, decades after the introduction of electricity. However, ‘gas lighting appears to have been used primarily in the kitchen, passages and stairs and above outside doors’, which might explain why this innovation seems to have had no noticeable impact on the visitors’ enjoyment of the art collection. The general public was admitted during daylight anyway, and receptions still used oil lamps and candles for illumination. There might have been also an element of snobbery—gaslight seemed to have been perceived as functional and cheaper, something to be used in the kitchen. Indeed, this was the beginning of a controversy between old and new that broke out forcibly as electricity became more widely used.

Electric Light

Electricity was introduced into country houses with much more enthusiasm than gas had been. It had clear practical advantages (for instance, it did not produce damaging fumes). At the forefront of modernity, in 1893 Chatsworth was one of the first country houses to make its own electricity (with water-powered turbines), following the example of Cragside, Northumbria, and of Hatfield House, Hertfordshire in 1881. As archives show, works started in the spring and were finished by November of that year.

18 Ibid., p. 7. Emphasis added.
19 ‘Gas at Chatsworth’, Sheffield and Rotherham Independent, 29 November 1861, p. 3.
21 Chatsworth Archives, personal communication on 19 June 2015.
On 16 December 1893 readers of the *Nottinghamshire Guardian* read:

‘The old order changeth, giving place to the new’ is a truism applicable to everything. Chatsworth house [...] is one of the latest, and certainly one of the most noteworthy, examples. In this case, the change has taken the form of the substitution of electric light for the previous means of lighting. Those who have grown to love the many beauties associated with Chatsworth will possibly feel a creeping of the flesh at the announcement, and look upon it as a piece of unpardonable Vandalism.\(^\text{22}\)

As the article indicates, the innovation was not universally welcomed by all. To begin with, there was a fear that, in order to accommodate the new technology, havoc would be wreaked on the house, and that its beauty and artistic treasures would be affected forever.

This explains why articles announcing electricity at Chatsworth were partly devoted to reassuring readers that the new electric fittings (by Drake and Gorham, the leading electrical engineers of the day) were perfectly harmonized with the pre-existing decoration. Here is an example:

> With such consummate skill has the electric light been introduced, where hitherto candles and lamps had reigned; and in such entire appreciation of all the surrounding has every addition been made; that were a stranger from another sphere shown through the rooms and told that the light was put in when the house was erected, he would not dream of questioning the accuracy of the statement. Indeed, whenever possible all the existing standards, brackets, chandeliers and so forth have been utilized, and where there were none the incandescent lamp has been introduced to look as if it had been there from the beginning.\(^\text{23}\)

The writer goes on to marvel at the special imitation electric candles, almost impossible to distinguish from the real thing, and at lamps ‘skillfully embedded in oak carving’ and ‘almost invisible in the daytime.’

Articles announcing electricity at Chatsworth were typically focused on the way in which electricity was produced and electric fittings had been blended in; the effect of the new light on the art collection was less talked about. However, one does learn that some artistic treasures had especially gained from the new illumination: ‘The chapel has been

\(^{22}\) ‘The Electric Light at Chatsworth’, *Nottinghamshire Guardian*, 16 December 1893, p. 5.

\(^{23}\) ‘Electric Lighting at Chatsworth’, *Sheffield and Rotherham Independent*, 9 December 1893, p. 6.
lighted in exquisite taste [...] the chandeliers are in perfect harmony with their surroundings, and enable the exquisite marble work and oak carving to be seen to the best advantage.’

Likewise, the writer of ‘The Electric Light at Chatsworth’, who emphasizes ‘the disadvantages under which the interior has hitherto been seen by night,’ closes his piece by promising that all ‘who see the house with its new illumination will see a thousand excellences they never suspected to exist.’

These reporters, like the Dukes, represent enthusiasts for modern technology; and we might recollect also how Malan, the 1893 visitor to the sculpture gallery, optimistically speculated on the potential for electric light to reproduce the magical effects of summer light at dawn.

But the feelings of those who resented such innovation were also strong. I will mention just one influential commentator, Edith Wharton, who in her 1893 The Decoration of Houses wrote that

The proper light is that of wax candles. Nothing has done more to vulgarize interior decoration than the general use of gas and of electricity [...] Electric light especially, with its harsh white glare [...] The soft, evenly diffused brightness of wax candles is best suited to bring out those subtle modellings of light and shade to which old furniture and objects of art owe half their expressiveness.

Chatsworth records show that the cost for the consumption of oil and candles in the house dropped to zero in 1894, which suggests that the Duke and Duchess totally embraced the modern mode of lighting that, according to Wharton ‘makes the salon look like a railway-station, the dining-room like a restaurant.’ I have not been able to ascertain whether Wharton ever visited Chatsworth; maybe she shunned it.

To conclude: for better or for worse, the fortunes of the art collection at Chatsworth have been linked to the fortunes of the Cavendish family — in its illumination as in every other respect. Being a private collection housed in a residence, it has been moved around and

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24 Ibid.
25 ‘The Electric Light at Chatsworth’, p. 5.
26 Edith Wharton and Ogden Codman, Jr., The Decoration of Houses (New York: Charles Scribner’s Sons, 1897), pp. 126–27, https://babel.hathitrust.org/cgi/pt?id=coo1.ark:/13960/t3320hg54
28 Wharton, The Decoration of Houses, p. 126.
accommodated to the tastes and needs of the family; the optimal visibility and conservation of the art works were not necessarily a priority. Not all of the Dukes had the same degree of interest in art; and even the Bachelor Duke ended by unwittingly damaging some of the drawings in the Old Master collection by ‘rescuing’ them from the darkness of the portfolios.

On the other hand, the Chatsworth art collection has benefited from the wealth and openness to modernity of the Dukes of Devonshire. As long as candles and oil lamps were the main means of illumination, they could afford plenty of them — and testimonies show that they spared no expense, especially during receptions. The Bachelor Duke increased illumination by incurring the expense of opening new windows and installing modern windowpanes. Most importantly he built a gallery that guaranteed the best possible illumination for his unique collections of neoclassical statues. When the era of electricity came, Chatsworth was one of the first country houses to adopt it, at a time when some looked down on it as a ‘nouveau riche’ thing to do.

If we need light to enjoy art works, Chatsworth has always offered plenty of it.

Now that Chatsworth House has become a Trust, and the Duke and Duchess of Devonshire pay a rent to live in it, new ways of making money to keep the establishment going must be explored. Indeed, its appeal as a film set has guaranteed a new visibility to its art collection. In the successful 2005 film version of Pride and Prejudice, Chatsworth/Pemberley and its art treasures are beautifully photographed. The moment of epiphany in the novel, when Elizabeth Bennett roams Pemberley and sees Darcy’s likeness, takes place in the sculpture gallery. Here the camera follows Elizabeth’s gaze, and in the artificially enhanced summer light it lingers with loving admiration on the beautiful statues. I am not sure what kind of lighting technology was used, but I am certain that the result would have pleased the Bachelor Duke.