

Object Lessons in Victorian Education: Text, Object, Image

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ABSTRACT

Lessons on common objects, known as ‘object lessons’, were a customary occurrence in Victorian schoolrooms. This article looks at Victorian object lessons around mid-century as a means of examining the variety of meanings that common objects, and particularly manufactured objects, might have held both inside and outside Victorian schoolrooms. While model scripts for object lessons circulated widely and clarified the meaning of common objects in print, the objects themselves had the potential to complicate and challenge these meanings. Drawing primarily on publications by Elizabeth Mayo and the Home and Colonial School Society (established in 1836), this article outlines the theological, industrial and imperialist ways of looking that informed the model object lesson. Yet close study of the objects employed in object lessons – feathers, an object lesson specimen box, and a series of illustrations of animals – demonstrates how full sensory engagement with material objects can disrupt these disciplined ways of looking and learning. The final section of the article describes the decline of object lesson pedagogies once they were established within the official curriculum for England and Wales over the course of the 1880s and 1890s. Increasingly, pictures and nature study came to replace common objects in Victorian schoolrooms, and had their own implications for the ways that schoolchildren were taught to look at and learn from the world around them.

KEYWORDS: education, object lessons, objects, thing theory, Elizabeth Mayo, Home and Colonial School Society

In a lecture entitled ‘Teaching on Common Things’ delivered at an Educational Exhibition in 1854, Rev. Richard Dawes explained that the children of the ‘educated classes’ receive ‘daily instruction . . . from the objects by which they are surrounded.’¹ Dawes went on to argue for the implementation of this kind of teaching within schools for working-class children, insisting that students should learn from ‘the objects by which they are surrounded in school.’² Dawes was not alone in advocating for this approach. The exhibition at which Dawes’s lecture was featured included a number of ready-made specimen boxes made specifically for teaching from objects, and circulars displayed at the exhibition show that the ‘object lesson’, as this approach was known, was a regular feature of the curriculum of Victorian model schools at the time.³

This emphasis on objects in learning is perhaps not surprising, considering the widespread preoccupation with manufactured objects during the Victorian period.⁴ The Great Exhibition

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¹ Richard Dawes, *Teaching of Common Things: A Lecture* (London: Groombridge and Sons, 1854), p. 3.

² Dawes, *Teaching*, p. 3.

³ *A Collection of Prospectuses of the Educational Exhibition of 1854*, issued by the Society of Arts, British Library, General Reference Collection 1889.a.1.

⁴ Helen Kingstone and Kate Lister make a similar point in their introduction to *Paraphernalia! Victorian Objects* (New York, NY, and London: Routledge, 2018), especially pp. 1–2. Also see Asa Briggs, *Victorian Things* (London: B. T. Batsford, 1988).

springs to mind immediately as an obvious example, along with the collections that were subsequently formed as part of the South Kensington museum. With their display of industrial manufactures and the products of Empire, the Great Exhibition and the new museum offered an array of unique objects that could both teach and delight visitors.⁵ New types of shopping experiences, from arcades to department stores, also put novel objects on display and within reach of wider segments of the population, while a profusion of illustrated periodicals (themselves industrially manufactured objects) and new forms of pictorial advertising provided representations of objects that could be consumed in city streets or in the home.⁶ Two of the most frequently cited Victorian social critics, John Ruskin and Karl Marx, described the effects of this proliferation of industrially manufactured objects, and urged their readers to engage critically with them, while Arts and Crafts objects, and minutely described objects captured in Aesthetic paintings and realist novels, provide evidence that such critical engagement occurred.⁷

We could chalk up the Victorian interest in object lessons to all of these various phenomena. Given the circumstances, how could Victorians *not* want to teach their children through objects? But instead of explaining object lessons in terms of these other social, literary, and artistic contexts, in this essay I examine object lessons on their own terms, contextualizing them within Victorian pedagogical practices. In pursuing this research, I examined schoolbooks, teachers' manuals, periodicals published by school societies, and the Committee of Council on Education's minutes and annual codes. I approached these texts as scripts that helped shape the ways object lessons unfolded in the classroom. I also examined material objects used in object lessons that I found extant in museums, libraries and archives. The objects hold prescriptions of their own, and they can both support and challenge the ways of looking and learning promoted by the textual documents of object lessons. These tensions between the texts and objects of the lessons point towards the ways that material objects shaped the various ways Victorians saw, sensed, and understood the objects around them.

My argument here is bound up with thing theory, proposed by Bill Brown to call attention to the ways that 'objects mediate our sense of ourselves (as individuals and as collectivities) and our sense of others', and with scholarship by Elaine Freedgood and Lisa Lowe that

⁵ T. J. Barringer, 'South Kensington Museum and the Colonial Project', in *Colonialism and the Object: Empire, Material Culture and the Museum*, ed. by Tim Barringer and Tom Flynn (London: Routledge, 1998), pp. 11–27; Bruce Robertson, 'The South Kensington Museum in Context: An Alternative History', *Museum and Society*, 2 (March 2004), 1–14; *The Great Exhibition, 1851: A Sourcebook*, ed. by Jonathan Shears (Manchester: Manchester University Press, 2017), especially the section on 'Display', pp. 56–76.

⁶ In *Object Lessons: How Nineteenth-Century Americans Learned to Make Sense of the Material World* (New York, NY: Oxford University Press, 2018), Sarah Carter describes the object lesson as 'commodity training', and also suggests that 'object lessons shaped how businesses marketed their products to consumers', pp. 121–5 and 130–31. See also Jo Briggs, *Novelty Fair: British Visual Culture Between Chartism and the Great Exhibition* (Manchester: University of Manchester Press, 2016); Alison Hedley, 'Advertisements, Hyper-Reading, and Fin-de-Siècle Consumer Culture in the *Illustrated London News* and *The Graphic*', *Victorian Periodicals Review*, 51 (2018), 138–67 <<https://muse.jhu.edu/article/690228>> [accessed 1 August 2018]; Erica Rappaport, *Shopping for Pleasure: Women in the Making of London's West End* (Princeton, NJ: Princeton University Press, 2000); and Thomas Richards, *The Commodity Culture of Victorian England: Advertising and Spectacle, 1851–1914* (Stanford, CA: Stanford University Press, 1990).

⁷ A selection of sources that describe this critical engagement with objects includes Julie Codell, 'Displaying Aestheticism's Bric-a-Brac: Rossetti's Material and Virtual Goods', in *Palaces of Art: Whistler & the Art Worlds of Aestheticism*, ed. by L. Glazer and L. Merrill (Washington, DC: Smithsonian Institution, 2013), pp. 119–31; Elaine Freedgood, *The Ideas in Things: Fugitive Meaning in the Victorian Novel* (Chicago, IL: University of Chicago Press, 2006); and Imogen Hart, *Arts and Craft Objects* (Manchester and New York, NY: Manchester University Press, 2010); and Kingstone and Lister, *Paraphernalia!*

examines the ways that this mediation is influenced by the material and colonial realities of Victorian objects.⁸ Object lessons demonstrate the claims made by these other scholars, and show that, as Freedgood explains, Victorians were ‘not fully in the grip of the kind of fetishism Marx and Marxists have ascribed to industrial culture.’⁹ At a time when the making and circulation of objects were changing rapidly, objects could hold a variety of potential meanings, and Marx’s view of objects was just one perspective among many.

Educational objects offer a unique perspective on nineteenth-century material culture. Some (but not all) of the objects of object lessons were produced commercially, and were promoted and purchased in a growing market for educational materials. Additionally, some (again, not all) taught students about the making and function of consumer objects. But in the space of the classroom, these objects existed outside of the sphere of commodities. In this sense, we might talk about an ‘educational economy’ as sharing aspects with the ‘gift economy’; the objects are gifted to the children for a time, no money exchanges hands, and the value of the object is not calculated monetarily. In this context, what meanings did objects hold? And how might these objects have cultivated particular modes of looking and learning that could be carried over into the wider economy?

In the first part of the essay, I discuss the work of Elizabeth Mayo, who along with her brother Charles adapted the work of the Swiss educator Pestalozzi for English audiences. As part of my research, I followed traces of Mayo through the archives, and learned about how her work at the Home and Colonial School Society (HCSS) helped disseminate and popularize object lesson pedagogies. Her published object lessons provided schoolteachers with model scripts with which to lead their object lessons, and demonstrate the ways in which such textual scripts were intended to manage the meanings of the material objects to be studied. This section of the essay draws on Elizabeth and Charles Mayo’s writings to outline the principles of Victorian object lessons. I suggest that some of the lessons offered by Elizabeth Mayo’s schoolbooks have radical potential due to their similarities to contemporary avant-garde artistic practices. However, reading the lessons in their wider context – including the political context of the time – reveals the highly disciplinary nature of Mayo’s object lessons.

This tension between the object lesson’s radical and disciplinary potential is explored further in the second part of the essay, which brings together specific objects and texts in order to highlight the meanings that objects might generate, and that texts could not always contain. In paying close attention to the objects themselves as material scripts for lessons, I show that the material presence of things can influence ways of looking, sensing, and knowing. This approach to objects, which takes seriously both the form and presence of things as capable of conveying information, is based in art historical methods. Keith Moxey has explained that ‘this discipline [of art history] has been riven since its inception between an awareness of the presence of works of art and their historical distance from the viewing subjects.’¹⁰ In order to pursue a phenomenological approach that takes into account a work of art’s presence, Moxey insists on the ‘opacity’ of works of art, as opposed to their transparency. That is, instead of seeking to look through the artwork to the message or narrative that it conveys, he tells us to

⁸ Bill Brown, ‘Objects, Others, and Us (The Refabrication of Things)’, *Critical Inquiry*, 36 (Winter 2010), 183–217 (p. 187) <<http://www.jstor.org/stable/10.1086/648523>> [accessed 1 August 2018]; Freedgood, *Ideas in Things*; and Lisa Lowe, *The Intimacies of Four Continents* (Durham, NC: Duke University Press, 2015). See also Jennifer Sattaur, ‘Thinking Objectively: An Overview of ‘Thing Theory’ in Victorian Studies’, *Victorian Literature and Culture*, 40 (2012), 347–57 <<http://www.jstor.org/stable/41413839>> [accessed 1 August 2018].

⁹ Freedgood, *Ideas in Things*, p. 7.

¹⁰ Keith Moxey, *Visual Time: The Image in History* (Durham, NC: Duke University Press, 2013), p. 59.

focus on the artwork's opaque surfaces and its physical presence, much like thing theory insists on the 'thingness' of objects.¹¹

This is the approach that I bring to the objects of object lessons. My analysis is based on my knowledge of Victorian schoolrooms and pedagogies, but it also depends on my own first-hand engagement with the material objects of the lessons. Scholars of the history of childhood and children's literature have long lamented the challenges of finding first-hand accounts that allow us to engage with historical children's responses.¹² That my subjects here are children who are only just learning to read and write exacerbates this problem. Those who did achieve literacy went on to fill pages of notebooks, some of which can be found in museums and archives, but such school notebooks are written with the teacher in mind, and usually with the aim of following directions as closely as possible rather than with the goal of communicating authentic responses to lessons.¹³ Furthermore, similar lessons likely unfolded in dissimilar ways across different classrooms, while individual students within a single classroom may have experienced the same lesson differently. As a result, what follows cannot claim to provide a comprehensive account of what occurred in any specific nineteenth-century classroom. Rather, the purpose is to consider both the disciplinary and radical potentials of Victorian object lessons by examining a range of possible responses suggested by both educational texts and objects.

In the final section of the essay, I discuss the proliferation of object lessons in the latter part of the century and the popularity of pictorial object lessons, where pictures – usually closely framed by text – come to replace objects. This section looks at curricular codes published annually by the Committee of Council on Education between 1862 and 1905, as well as at the object lesson schoolbooks that proliferated in the 1880s and 1890s, once object lessons were incorporated into the curriculum. The replacement of pictures for objects in such schoolbooks, alongside a shift in the early twentieth century towards nature study as a replacement for object lessons, also had consequences for the ways children were taught to understand the world around them.

1. THE TEXTUAL SCRIPTS OF OBJECT LESSONS: ELIZABETH MAYO AND THE HCSS

From 1805 to 1825, in a school in Yverdun, the Swiss educator Johann Heinrich Pestalozzi developed and promoted his method of teaching from objects. For Pestalozzi, the job of the educator was not to impart facts to students, but to guide students in making observations and judging those observations on their own. With his emphasis on learning from things, rather than from words imparted by books or teachers, Pestalozzi participated in eighteenth-century tendencies in education and philosophy that emphasized direct experience.¹⁴

¹¹ Moxey, *Visual Time*, p. 79.

¹² See *Childhood by Design: Toys and the Material Culture of Childhood, 1700–Present*, ed. by Megan Brandow-Faller (London: Bloomsbury Publishing, 2018), pp. 2–3; and Karen Sánchez-Eppler, 'In the Archives of Childhood', in *The Children's Table: Childhood Studies and the Humanities*, ed. by Anna Mae Duane (Athens, GA: University of Georgia Press, 2013), pp. 213–37 (pp. 215–16). <www.jstor.org/stable/j.ctt46n4rv.20> [accessed 1 August 2019].

¹³ I consulted a number of such notebooks at the British Schools Museum in Hitchin, England. For a discussion of working-class literacy, see Laura M. Mair, 'A "Transcript of Their Mind"?: Ragged School Literacy in the Mid-Nineteenth Century', *Journal of Victorian Culture*, 24 (2019), 18–32, <<https://doi.org/10.1093/jvcult/vcy050>> [accessed 1 August 2019].

¹⁴ For more information about Pestalozzi, see Carter, *Object Lessons*, pp. 4–14.

Though the school in Yverdon failed on the economic front, it attracted international visitors and thus helped spread Pestalozzi's ideas. One of these visitors was Charles Mayo, who stayed at Yverdon from 1819 to 1822, and returned to England with the intent of promoting a modified version of Pestalozzi's system, 'adapted to the English mind and character'.¹⁵ In 1826, Charles Mayo delivered a lecture at the Royal Institution in London that outlined the principles of his educational system, and these principles were recorded by his sister Elizabeth Mayo and circulated widely in *The Principles of Pestalozzi*.

Two aspects of these principles are relevant to the pedagogical approach that became known in England as the 'object lesson'. First, the Mayos explained that education should develop the faculties – in other words, education does not consist in filling a student with knowledge; rather, it is concerned with exercising and improving the faculties.¹⁶ This principle is rooted in faculty psychology, which dominated theories of learning through most of the nineteenth century. Faculty psychology proposed that the mind is made up of different units (called 'faculties') that specialize in different tasks, and that each of these units can be exercised and thus strengthened.¹⁷ Object lessons concentrated on exercising what was considered the most basic of the faculties, the faculty of sense perception, and this laid important ground for pursuing the higher faculties, such as classification and reasoning.¹⁸

A second principle emphasized by the Mayos was that 'the use of signs should not precede the knowledge of the things signified'.¹⁹ This point stems from criticisms that too much of education consisted in drilling students with the names of things rather than teaching students the meaning of those names. Pestalozzi and his followers insisted that the understanding of ideas should come first, and that this understanding must be acquired through the student's own experience.²⁰ Only once this was achieved could a word be offered to name the new piece of knowledge. In this way, students would achieve deeper and lasting comprehension and were more likely to remember the information.

Pestalozzian methods reached English teachers and students through the efforts of the HCSS, an organization that Elizabeth Mayo helped establish in 1836. The HCSS aimed to fill a gap in the teacher training offered by organizations such as the British and Foreign School Society (BFSS) and the National Society by training infant-school teachers. This gap was considered particularly problematic when it came to the education of the working classes. Mayo and her associates considered infancy the ideal time to inculcate habits of 'obedience, cheerful subordination, cleanliness and order – characteristics which were clearly desirable in the future working class'.²¹ Without a place for infants to go during the day while parents worked, older children were often kept out of school in order to care for younger siblings, or else infants might be sent to a local dame school or left unsupervised, options that middle-class

¹⁵ Charles Mayo and Elizabeth Mayo, *Pestalozzi and his Principles*, 4th edn (London: published for the Home and Colonial School Society, 1890), p. 143.

¹⁶ Mayo, *Pestalozzi and his Principles*, pp. 170–85.

¹⁷ Robert Hoeldtke, 'The History of Associationism and British Medical Psychology', *Medical History*, 11 (1967), 46–65; and *Embodied Selves: An Anthology of Psychological Texts, 1830–1890*, ed. by Jenny Bourne Taylor and Sally Shuttleworth (Oxford: Clarendon Press, 1998), pp. 67–9.

¹⁸ Mayo, *Pestalozzi and his Principles*, pp. 188–9.

¹⁹ Mayo, *Pestalozzi and his Principles*, p. 227.

²⁰ Mayo, *Pestalozzi and his Principles*, pp. 191–7.

²¹ Karen Clarke, 'Public and Private Children: Infant Education in the 1820s and 1830s', in *Language, Gender and Childhood*, ed. by Carolyn Steedman, Cathy Urwin and Valerie Walkerdine (London: Routledge and Kegan Paul, 1985), pp. 74–87; and Nanette Whitbread, *The Evolution of the Nursery-Infant School: A History of Infant and Nursery Education in Britain, 1800–1970* (London: Routledge and Kegan Paul, 1972), pp. 8–16.

educationists believed to have a corrupting influence on children. In addition, working-class children who attended school often left to start working as early as age eight, meaning that they might only receive one or two years of schooling.²²

The HCSS started out with a training college and a model school for infants, and within a decade expanded to include a juvenile school for children up to age 10.²³ In 1846, the HCSS began receiving government funds to support their work, which put them on equal footing with the BFSS and the National Society.²⁴ During that first decade, the society trained 1,443 teachers, and according to one school inspector, was ‘required to supply trained teachers for nearly the whole of the current appointments’ of infant school teachers.²⁵ To support teachers, the HCSS maintained a repository for books and educational supplies at their premises at Gray’s Inn Road, circulated annual reports, and published two short-lived educational magazines.

Elizabeth Mayo actively contributed to the HCSS throughout her lifetime, serving as the first woman in England to train teachers.²⁶ Two books by Mayo, *Lessons on Objects* and *Lesson on Shells*, both written and first published prior to the establishment of the HCSS (in 1830 and 1832, respectively), offered a model for infant teaching and were reprinted numerous times, with the former appearing in new editions well into the second half of the century.²⁷ Mayo also served as editor of their first magazine, *The Quarterly Educational Magazine*, which ran for two years beginning in 1848, and collaborated on additional handbooks for teachers that circulated through the HCSS.

One of the most straightforward discussions of Mayo’s methods can be found in the second edition of *Lessons on Shells*, where she explains that the purpose of the book is not to teach the ‘science of conchology’, but ‘to develop children’s powers of observation, comparison and classification; and to cultivate habits and tastes, which may in after life lead to a more correct and scientific study of the subject.’²⁸ To follow Mayo’s methods, the teacher must supply the objects of study so that students can experience them at first hand, and Mayo is adamant that there is no substitute for actual objects. She explains that ‘the object itself should be presented to the children; that their knowledge be acquired by themselves, instead of all being simply communicated by the teacher.’²⁹ The danger of ‘simply communicating’ information to pupils, for Mayo, was that ‘though they may receive the information with pleasure, and appear to profit by it, yet under such a mode of instruction their minds remain *passive*, and they acquire

²² Clarke, ‘Public and Private Children’, p. 77; Whitbread, *Evolution*, pp. 6–8 and 24–5; ‘The Home and Colonial School Society’, *The Quarterly Educational Magazine*, I (January 1848), 53; and ‘Report on the Model Schools of the Home and Colonial Infant School Society, by Seymour Tremenheere’, *Minutes of the Committee of Council on Education for 1842–3* (London, 1843), pp. 156–7, in *Proquest UK Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 5 June 2018].

²³ ‘The Home and Colonial School Society’, 45.

²⁴ Whitbread, *Evolution*, p. 22.

²⁵ ‘Report on the Schools of the Home and Colonial Infant and Juvenile School Society, by E. C. Tufnell, Esq.’, *Minutes of the Committee of Council on Education for 1846–7* (London, 1847), p. 558, in *Proquest UK Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 5 June 2018]; and ‘Report on Infant Schools on the Principles of the British and Foreign School Society, aided from Parliamentary Grants, by J. Fletcher, Esq.’, *Minutes of the Committee of Council on Education for 1845–6* (London, 1846), p. 357, in *Proquest UK Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 5 June 2018].

²⁶ Janet Shepherd, ‘Elizabeth Mayo’, in *Oxford Dictionary of National Biography* <<https://www-oxforddnb-com>> [accessed 5 May 2018].

²⁷ Carter, *Object Lessons*, pp. 14–21 and 29–32; Edward Peel, *Cheam School From 1645* (Gloucester: The Thornhill Press, on behalf of the Cheam School Association, 1974), p. 114; and Shepherd, ‘Elizabeth Mayo’.

²⁸ Elizabeth Mayo, *Lessons on Shells* (London: R. B. Seeley and W. Burnside, 1838), p. xi.

²⁹ Mayo, *Lessons on Shells*, p. 53.

a habit of receiving impressions from others, at a time when they ought to be gaining mental power by the exertion of their own faculties' [emphasis added].³⁰

Mayo's insistence on active looking is what drew me to the study of object lessons, first because it sounds so much like today's conversations around experiential learning, and second because it seems almost avant-garde in its approach. Like modern artists and writers, Mayo believed in starting from one's own embodied perception rather than from received ideas and conventional representations, and she insisted that students rely on the particularities of their own opaque and variable bodies in order to cultivate individual perceptive faculties.³¹ Mayo's pedagogical method holds similarities to John Ruskin's exhortation to go directly to nature, 'rejecting nothing, selecting nothing, and scorning nothing', and I started to imagine that the Pre-Raphaelite Brothers had been influenced as much by their childhood object lessons as by a tendency towards teenage rebellion.³² After all, Millais's *Ophelia* appears to exhibit precisely the kind of active and careful looking that Mayo hopes to cultivate in teachers and students.³³

Looked at from this perspective, object lessons seem to hold radical potential. However, in the paternalistic spaces of the HCSS's model school, any sense of this radical potential was buried deep within a specific set of interpretative frames that emphasized Christian belief, national and imperial progress, and the established social order. The political necessity of such lessons is made explicit in HCSS publications that describe Christian education as a means of quelling revolutionary sentiment. In Mayo's preface to the first volume of the *Quarterly Educational Magazine*, for example, she emphasizes the importance of religious education by introducing the French Revolution as a cautionary tale. 'At that awful crisis', she explains, 'more information on the part of the people *might* have been favourable to the cause of order, we have no assurance that it *would*, unless it had rested upon a religious basis, and been sustained by a moral and religious culture.'³⁴ Mayo goes on to discuss the current situation in England in 1848:

we have now reached another crisis which may bring this to the test. Increased development may take one of two directions—an earthly restlessness, generating every form of disorder—or moral and religious enterprise, fruitful in every good work,—the true glory of a great nation. But the latter can only be the result of a thoroughly *Christian* development.³⁵

Similarly, in *Practical Remarks on Infant Education*, Charles Mayo explains that 'it is very important also to accustom [the children] to consider what is their right position in society.

³⁰ Elizabeth Mayo, *Lessons on Objects*, 6th edn (London: R. B. Seeley and W. Burnside, 1837), pp. 3–4.

³¹ See Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1990); David Peters Corbett, *The World in Paint: Modern Art and Visuality in England, 1848–1914* (University Park, PA: Penn State University Press, 2005); Lorraine Daston and Peter Galison, *Objectivity* (New York, NY: Zone Books, 2007); Kate Flint, *The Victorians and the Visual Imagination* (Cambridge: Cambridge University Press, 2000); and Lindsay Smith, *Victorian Photography, Painting and Poetry: The Enigma of Visibility in Ruskin, Morris and the Pre-Raphaelites* (Cambridge: Cambridge University Press, 1995).

³² John Ruskin, *Modern Painters*, 5 vols (London: Smith, Elder and Co., 1848), I, 417.

³³ The Pre-Raphaelite approach to painting aligned with scientific ideas of the time so it is not surprising that the paintings also resonate with contemporary pedagogical theory. See Anne Helmreich, *Nature's Truth: Photography, Painting, and Science in Victorian Britain* (University Park, PA: Penn State University Press, 2016). On the relationship between object lessons and Victorian science, see Melanie Judith Keene, 'Object Lessons: Sensory Science Education 1830–1870' (PhD diss., Darwin College, University of Cambridge, 2008).

³⁴ *Quarterly Educational Magazine*, 1 (1848), iv.

³⁵ *Quarterly Educational Magazine*, 1 (1848), iv.

Teach them that the different grades of rank are established by the Lord, and that each has its appointed work, as each member of our body has its appointed office.’³⁶

Such remarks make it clear that what Mayo proposes is not an open-ended and liberating way of seeing, but rather a highly disciplined form of perception. Object lessons do not just teach content, but also focus on the precise ways that individuals should go about learning. As a result, object lessons nicely illustrate Michel Foucault’s contention that increased aptitude, here the aptitude to perceive attentively and productively, results in increased domination. Surveillance is now brought to bear not only ‘on production’, but also on ‘their skill, the way they set about their tasks’; in other words, on the labour (or learning) process.³⁷

It would be easy to explain object lessons in this way, as an illustration of nineteenth-century disciplinary practices of the kind that we have come to expect of Victorian schooling. This explanation aligns with what Peter K. Andersson has called ‘the picture of the nineteenth century as the era of bourgeois efforts of discipline.’³⁸ Though such characterizations are not incorrect, this reading does not account for the materials of object lessons, their ‘thingness’ and presence, the agency that teachers and students might exercise within their individual encounters with such objects, and for what Andersson calls ‘the heterogeneous and contradictory character of a period.’³⁹ The next section of the essay does just that, by reading the textual scripts of object lessons alongside the lesson’s material objects.

2. THE MATERIAL OBJECTS OF THE OBJECT LESSON

Feathers

The Bodleian Library holds a unique copy of the HCSS’s *Model Lessons for Infant School Teachers and Nursery Governesses*, written by Elizabeth Mayo and published in a revised and enlarged form in two parts, in 1848 and 1849 respectively. The Bodleian’s copy includes both parts in one bound volume that was owned by Catherine Brown, who inscribed her name and the date (14 October 1850) on the first page. All HCSS teachers-in-training were required to purchase and use the books published by the Society, which would have included *Model Lessons*, and so it possible that Brown was one such teacher-in-training.⁴⁰ Whether or not this was the case, it is clear from the copious notes in the margins of the book that Brown consulted Mayo’s *Model Lessons* closely. She also used the volume as a repository for a small collection of feathers that could serve as common objects from which to teach (Figure 1).⁴¹

³⁶ Quoted in Clarke, ‘Public and Private Children’, p. 81.

³⁷ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. by Alan Sheridan (New York, NY: Vintage Books, 1995), pp. 138 and 174. Also see Clarke, ‘Public and Private Children’, p. 78; and Parna Sengupta, ‘An Object Lesson in Colonial Pedagogy’, *Comparative Studies in Society and History*, 45 (2003), 96–121.

³⁸ Peter K. Andersson, ‘How Civilized Were the Victorians?’, *Journal of Victorian Culture*, 20 (2015), 439–52 <<http://doi.org/10.1080/13555502.2015.1090673>> [accessed 1 August 2018].

³⁹ Andersson, ‘How Civilized’, p. 441. In *Vision, Science and Literature, 1870–1920: Ocular Horizons* (New York, NY, and London: Routledge, 2011), Martin Willis proposes examining individual ‘visual encounters’ in order to avoid ‘flatten[ing] the contours of [the Victorians’ and Edwardians’] sophisticated visuality’ (p. 4).

⁴⁰ ‘Report on the Model Schools of the Home and Colonial Infant School Society, by Seymour Tremeneheere’, *Minutes of the CCE for 1842–3*, pp. 156–7.

⁴¹ The practice of collecting easy-to-access items such as feathers was likely widespread among schoolteachers. See ‘Cheap School-Apparatus’, *Educational Record* (October 1855), 108 and ‘Letters to the Editor: Cheap School Apparatus’, *Educational Record* (January 1856), 134. See also Martin Lawn, ‘A Pedagogy for the Public: The Place of Objects, Observation, Mechanical Production and Cupboards’, *Revista Linhas*, 14.26 (January/June 2013), 244–64 <<http://doi.org/10.5965/1984723814262013244>> [accessed 15 July 2018].



Figure 1. Feathers found in Catherine Brown's *Model Lessons for Infant School Teachers and Nursery Governesses* (London: Seeleys, 1848–1849). The Bodleian Library, University of Oxford, Vet. A6f.1578, p. iii.

Model Lessons, along with other HCSS publications, follows Pestalozzian principles by proposing that ‘the material objects around the children [should furnish] the subjects for intellectual development.’⁴² This explains Brown’s collection of feathers; they were likely stored in the book in order to provide material objects for the lessons. What Brown would have done with the feathers is suggested by the text of *Model Lessons*. A lesson on feathers, bookmarked by a now-disintegrating brown feather with white spots, begins with questions such as ‘What is this?’ and ‘What kind of thing does it come from?’ (Figure 2). Throughout, there is an emphasis on observation and description, such as when the teacher throws a feather up into the air and ask students ‘What do you see?’ or tells students to ‘examine the feather, and tell me what colours you see.’⁴³

Yet a large part of the lesson moves beyond exploratory looking to lead students towards appropriate reflection. The teacher asks the ‘elder children to tell me why such a light covering as feathers is best suited to birds.’ The answer provided in the script, that their light feathers help them fly, shows that ‘the Great God who is in heaven takes care even of little birds . . . and if he observes everything that the little birds do, and takes such care of them, will he, do you

⁴² Elizabeth Mayo, *Model Lessons for Infant School Teachers and Nursery Governesses* (London: Seeleys, 1848–1849), pp. vi–v.

⁴³ Mayo, *Model Lessons*, pp. 26–7.

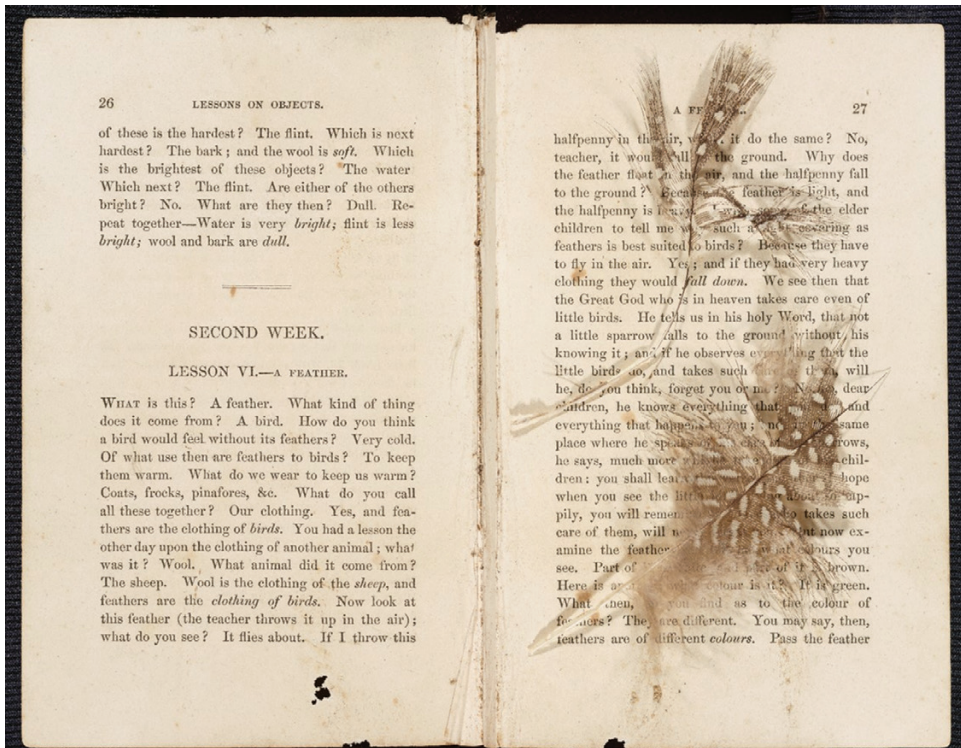


Figure 2. Feathers found in Catherine Brown's *Model Lessons for Infant School Teachers and Nursery Governesses* (London: Seeleys, 1848–1849). The Bodleian Library, University of Oxford, Vet. A6f.1578, pp. 26–7.

think, forget you or me?' The teacher goes on to drive the point home: 'I hope when you see the little birds flying about so happily, you will remember that God, who takes such care of them, will never forget you.'⁴⁴

Natural theology shapes this model lesson and many others like it published by the HCSS and other contemporary school societies. Though natural theology in various forms had circulated in Europe prior to the nineteenth century, William Paley's 1802 book, *Natural Theology, or Evidence of the Existence and Attributes of the Deity, Collected from the Appearances of Nature*, popularized and codified a particular approach that flourished among nineteenth-century educators.⁴⁵ Paley's book reads like a series of object lessons, with minutely detailed observations of objects that lead readers to reflect on what those objects reveal about the existence and attributes of a Christian God.⁴⁶

⁴⁴ Mayo, *Model Lessons*, p. 27.

⁴⁵ Colin Jager explains that 'Paley passed on to the nineteenth century a relatively unified and very famous version of the heterogeneous mass of eighteenth-century rational theological thought.' See Jager, *The Book of God: Secularization and Design in the Romantic Era* (Philadelphia, PA: University of Pennsylvania Press, 2007), p. 105.

⁴⁶ William Paley, *Natural Theology, or Evidence of the Existence and Attributes of the Deity, Collected from the Appearances of Nature* (Oxford: Oxford University Press, 2006). See also Jonathan Conlin, *Evolution and the Victorians: Science, Culture and Politics in Darwin's Britain* (London: Bloomsbury Academic, 2014), pp. 23–42; and Jager, *The Book of God*, pp. 103–23.

Given the popularity of natural theology as a doctrine and of Paley's *Natural Theology* in particular, which went through 24 editions in its first 20 years, it is not surprising that so many nineteenth-century educational texts share in this approach. Considered against the backdrop of widespread fears of revolt, in the wake of revolutions in Europe and the threat of Chartism in England, the appeal to natural theology appears even more suitable to the time since it teaches children to find God and God's plan in all things, including the social order.⁴⁷ This type of looking, which I will for now call 'theological looking', fits in easily with a Foucauldian interpretation of education, described above. The aim of educators such as Mayo was to render theological looking habitual, at which point students can extrapolate from a feather, or a plant or insect, that their place in the social order is God-given, carefully designed, and therefore incontestable.

However, examining the feathers that Catherine Brown used in her lessons complicates this story of discipline and domination. The feathers provide an additional script for the lessons, suggesting ways that the actual encounter between teacher, object and students might have differed from the HCSS's model lesson. Instead of looking through the feathers to something else that they do or represent, such as the existence and plan of God, an encounter with the feathers used in object lessons calls attention to what Bill Brown has called the 'thingness' of objects. He explains that 'we begin to confront the thingness of objects when they stop working for us: when the drill breaks, when the car stalls, when the windows get filthy, when their flow within the circuits of production and distribution, consumption and exhibition, has been arrested.'⁴⁸ This description speaks directly to the experience of the object lesson, through which students are asked to abandon habitual patterns of looking and consumption in favour of an attentive and reflective engagement with the physical attributes of objects.

In the case of Catherine Brown's feathers, first-hand engagement with the objects calls attention to their tactility, their softness and their fragility. The small size of the feathers, and the importance of touch in discerning essential attributes, remind us of the possibility of close and intimate encounters (both positive and negative) between teachers and students, as well as among students who might pore over a small object like a feather together, and between students and the objects under study. One can imagine these feathers held close and stroked gently, with children taking pleasure in the textures and feel of each feather. Though such intimacy likely contributed to and strengthened the type of internalized discipline described by Foucault, this sense of intimacy also reminds us that each object lesson prompted individual encounters that were full of complexity, difference and variety.⁴⁹

⁴⁷ A good example of this kind of looking can be found in *Eyes for Everything; or how to observe and what to observe* (London: Thomas Nelson and Sons, 1868). It is also noteworthy that William Paley wrote *Reasons for Contentment; Addressed to the Labouring Part of the British Public* (London: printed for R. Faulder, 1793).

⁴⁸ Bill Brown, 'Thing Theory', *Critical Inquiry*, 28.1 (Autumn 2001), pp. 1–22.

⁴⁹ The colours and patterns of the feathers suggest that they come from different kinds of birds, some of which were local and some of which would have taken some effort to procure. With the help of *The Feather Atlas* <<https://www.fws.gov/lab/featheratlas/index.php>> [accessed 8 August 2019], I was able to identify four out of the five feathers. The two brown and white feathers pictured here, one striped and the other spotted, come from a Eurasian curlew and a (likely domesticated) Guinea fowl, respectively, birds that were common in England at the time. The blue-tipped feather is a peacock body feather, and another feather, not shown here, comes from the Roseate Spoonbill, a type of bird that was only found in the Americas. These two feathers suggest that their owner made an effort to collect a variety of feathers. The fifth feather, which I was not able to identify with any certainty, did not have any distinctive markings that I could discern.

A Specimen Box

By mid-century, growth in urban populations, emerging laws that limited child labour in factories, and the support provided by the Committee of Council on Education led to an increase in the number of children in schools. More infant schools, stimulated in part by the work of the HCSS, also meant that more children were able to attend school instead of staying home to look after younger children.⁵⁰ In 1861, it was estimated that 19.8% of children between the ages of three and six were attending schools.⁵¹ The expansion of the educational system required more teachers, more teachers to train teachers, and a new class of school inspectors to oversee publicly funded schools. These developments positioned some educationists as experts and stimulated discussion of educational methods, as seen by the Society of Arts' Educational Exhibition in 1854, followed by the establishment of a permanent educational exhibition at the South Kensington Museum, and by the inclusion of 'Educational Works and Appliances' at the International Exhibition of 1862.⁵² As noted by the jurors of the latter exhibition: 'there never was a time when so much thought, and care, and love, and so much literary power and artistic skill, were employed in the service of education; and [the jurors] thankfully welcome the many evidences of this fact which the present Exhibition affords.'⁵³ They noted in particular the Home and Colonial School Society's 'collection of simple objects, which in the hands of a good teacher are well calculated to form the basis of excellent lessons on familiar things, and which often have a great advantage over pictures, however good'.

Such collections, neatly labelled and arranged in wooden boxes, were advertised in HCSS publications, and could be procured from the HCSS depository, as well as from a number of other suppliers.⁵⁴ Two of these boxes survive intact in London collections, in the Museum of Childhood and the Science Museum. The similarities between the two boxes suggest that they were manufactured in multiples and were not the product of a single industrious teacher-collector. In both, the items are arranged in four successive trays that correspond roughly to the scripts provided by the HCSS. Each specimen is labelled on both the object itself and the individual cardboard box in which it is housed, suggesting that the box's users were expected to remove and handle each item; the labels ensure that they will be returned to their proper places (Figures 3 and 4).

The first tray holds an assortment of objects that correspond with the first three series of lessons in Mayo's *Lessons on Objects*. These first lessons, and the first tray, introduce teachers and students to the logic of the object lesson through a range of objects with contrasting characteristics. Glass sits alongside horn and Indian rubber; scissors appear between a piece of honeycomb and a stone; brown sugar is adjacent to a pen and quill; and a piece of fur sits next to a lady bug sealed in a box. In contrast to this hodgepodge of objects, the last tray holds 35 specimens of metals, minerals and other naturally occurring materials in raw form, arranged in a grid, and corresponds to the final series of lessons in Mayo's book, which feature metals

⁵⁰ Whitbread, *Evolution*, p. 22–4.

⁵¹ Whitbread, *Evolution*, p. 24. For discussion of the expansion of infant schools, see 'Report on Infant Schools on the Principles of the British and Foreign School Society, aided from Parliamentary Grants, by Joseph Fletcher, Esq.; Minutes of the Committee of Council on Education for 1846–47 (London, 1847), p. 351–62, in *Proquest UK Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 5 June 2018].

⁵² *International Exhibition 1862: Reports by the Juries* (London: Printed for the Society of Arts, 1863), p. 3; and Anthony Burton, 'Education at the 1862 Exhibition', *The Decorative Arts Society, 1850 to the Present*, 38 (2014), 151–61.

⁵³ *International Exhibition 1862*, p. 23.

⁵⁴ A Collection of Prospectuses of the Educational Exhibition of 1854.



Figure 3. Educational Specimen Box, c. 1850. V&A Museum of Childhood, B.5:1 to 5-2009. Image courtesy of the Victoria and Albert Museum, London.



Figure 4. Four Trays from Educational Specimen Box, c. 1850. V&A Museum of Childhood, B.5:1 to 5-2009. Image courtesy of the Victoria and Albert Museum, London.

and earths. So as we move from top to bottom in the box, we transition from common objects one might find in a household to the raw materials from which they are formed.

The middle two trays bring the manufacturing process to the fore. Tray two features primarily finished products, including various spices packaged in small glass vials, a piece of porcelain, and specimens of paper and leather. The pieces of paper and leather are individually labelled, but are stacked up in their respective compartments, indicating that teachers and students were expected to remove these from the box and handle the specimens in order to discern differences in texture and weight between, for example, rice paper and cotton paper, or horse leather and sheep leather. There is a clear message here in the variety of products available about the power of the manufacturing process and, in particular, about the ingenuity of English manufacturing. This message is reinforced by Mayo's *Lessons on Objects*, where the lessons list different types of finished products that can be made from each type of raw material.⁵⁵

The third tray continues this lesson by placing raw materials and finished products side-by-side, generating a narrative about the transformation of natural resources into useful products and emphasizing the industrial looking that informed the Victorian object lesson. For example, flax seeds and hemp seeds can be examined alongside hemp and flax fibres, sack cloth, twine, and rope, while cotton and sheep's wool are featured alongside cotton thread and wool thread, as well as a variety of fabrics. In using the word 'industry' to describe the perceptual practice that such comparisons invite, I am relying on the Oxford dictionary definition of the term that describes industry as 'economic activity concerned with the processing of raw materials and manufacture of goods in factories.'⁵⁶ Similarly, industrial looking can be described as a 'perceptual activity' that is 'concerned with the processing of raw materials and manufacture of goods', which is precisely what schoolchildren were being asked to grapple with as they observed the differences between sheep's wool, wool thread, and a wool swatch.⁵⁷ The textual script provided by Mayo's *Lessons on Objects* makes this clear. In the first series of lessons, after children are led to observe the qualities of wool, they are prompted to discuss its uses; that is, what wool can be transformed *into*, such as 'cloth; flannels; blankets; carpets; stockings.'⁵⁸ When wool is revisited again in the fifth series of lessons, more information about the manufacturing process is provided to explain *how* the raw material of wool is transformed into thread, and from there into 'every description of hosiery, stuffs, carpets, flannels, blankets, and cloths.'⁵⁹

Joining this industrial mode of looking was an imperialist perspective that viewed the world as made up of a plethora of raw materials, as well as an abundance of labour, that could be plucked and exploited at will to the benefit of Britain, regardless of its place of origin. In Mayo's *Lessons on Objects*, the lesson on wool is followed by one on cotton, which begins with the statement that 'the cotton plant is cultivated in the East and the West Indies.'⁶⁰ After a description of the plant, the text describes the process by which the plant is harvested and

⁵⁵ See for example the lessons on wool and cotton, discussed below. Mayo, *Lessons on Objects*, pp. 124–6.

⁵⁶ 'Industry', in *Oxford Dictionaries* <<https://premium-oxforddictionaries-com.login.ezproxy.library.ualberta.ca/us/definition/english/industry>> [accessed 23 December 2018].

⁵⁷ The emphasis on industrial manufactures in object lessons was prominent in the curriculum of the British and Foreign School Society's model school, where weekly lessons on 'Object Lessons and Manufactures' were scheduled. 'Arrangement of Time in the Borough Road Model School', *The Educational Record* (December 1852), 90–91.

⁵⁸ Mayo, *Lessons on Objects*, p. 13.

⁵⁹ Mayo, *Lessons on Objects*, p. 125.

⁶⁰ Mayo, *Lessons on Objects*, p. 125.

processed in passive language, explaining that the cotton ‘is picked by the hand’, ‘separated from the seeds by a machine’, and ‘packed in bags, and sent by the planter to the manufacturer’. It is then ‘carded’, ‘roved’, then ‘twisted and drawn out into threads or yarn’, and finally ‘made into muslins, calicoes, stockings, quilts, corduroys, &c.’⁶¹ Mayo carefully describes this process, explaining what it means to ‘card’ and ‘rove’, but she does not discuss who does the labour, where the labour is performed, or who benefits from cotton’s extraction and processing. Readers are told at the close of the lesson that ‘the machinery employed in England in carding, roving, and spinning, is quite unequalled, and occasions our cotton goods to be much sought after.’⁶² Mayo’s use of the pronoun ‘our’, as in ‘our cotton goods’, places British readers – the primary audience for the lessons – at the centre of the narrative, just as British imperial ideology placed Britain at the centre of the world.

A similar account is offered in the lesson on silk, where readers are given a detailed description of how the silkworms’ cocoons are made into thread that is wound together to make raw silk.⁶³ The people and places on which this labour depend go unremarked until the end of the lesson, when readers are informed that ‘our manufacturers are supplied with silk chiefly from China, Persia, and Italy.’⁶⁴ In such accounts, the natural world, including but not limited to areas of the world dominated by Britain’s empire, is presented as raw material with potential for useful transformations that will benefit British manufacturers and consumers. The object lesson specimen box provides a potentially ideal companion to such lessons. The social, political, and economic systems that enable such marvellous transformations from raw material to finished product do not fit into the box, while the labelled and neatly arranged objects appear always already available for consumption, making such transformations and the presence of the finished products in English schoolrooms and homes appear both natural and inevitable.⁶⁵

Yet an encounter with the objects themselves complicates this reading of the object lesson. As I argued in relation to Catherine Brown’s feathers, removing objects from their usual contexts and introducing them as part of a school lesson calls attention to ‘the thingness of objects’ since the new context frustrates the usual working of the objects. The gloves that I was asked to wear in my own encounter with the specimen box contributed to this effect, since they frustrated my ability to touch the objects directly, and thereby called attention to the importance of tactility to the object lesson.⁶⁶ This became especially obvious when the specimens prompted comparisons, such as the comparisons between raw materials and different types of finished products.

Making these comparisons between specimens has the effect of peeling back the layers of common objects, showing the materials on which they depend and opening up gaps between raw material and finished product. Though this is one of the overt objectives of object lessons, the embodied experience of handling the objects animates the gaps between the various objects, and calls attention to the labouring bodies that were central to the transformative processes that produced the objects – almost as though one’s own bodily presence between

⁶¹ Mayo, *Lessons on Objects*, p. 126.

⁶² Mayo, *Lessons on Objects*, pp. 125–6.

⁶³ Mayo, *Lessons on Objects*, pp. 129–30.

⁶⁴ Mayo, *Lessons on Objects*, p. 130.

⁶⁵ Also see Clarke, ‘Public and Private Children’, p. 80.

⁶⁶ This was likely clear to many of the educators who employed object lessons. In *Progressive Object Lessons for Infant Schools* (London: Spottiswoode and Co., c. 1894), William Taylor explained that ‘children learn very little about objects by merely looking at them. They must handle them so that sight and touch impressions may aid each other’ (p. xvii).

the objects stands in for other bodies that have come before. In addition, the small size of the objects reminds us again of the possibility of close and intimate encounters prompted by object lessons. One can imagine these objects held close for inspection, with children taking pleasure in exploring their shapes and textures.

Considering the intimate nature of the object lesson calls to mind Lisa Lowe's book *The Intimacies of Four Continents*. Lowe explains that 'intimacy' is typically associated with an interior self protected from the exterior world, and with bourgeois domesticity located within the home. In contrast, we often consider global geography and economies 'in terms of vast spatial distances' that seem opposed to such intimacies.⁶⁷ Lowe's argument suggests that objects made from colonial resources and labour that cross vast spatial distances can invoke a sense of close connection – even intimacy – by recalling 'the circuits, connections, associations, and mixings of differentially laboring peoples'.⁶⁸ In other words, common objects can hold traces of the relationships and connections between resources, labourers and consumers. Furthermore, many of England's working-class children would have been intimately familiar with one or more of the objects found in the specimen box, not just as common objects, but also as local resources or manufactures. For example, a student in Lancashire would likely be familiar with the manufacture of cotton goods, while a student in a mining town would have been previously acquainted with coal.⁶⁹ These students may have brought an intimacy with materials and practical knowledge of labour with them into the classroom that could help them animate the gaps between the various specimens, possibly in ways that were inaccessible to the teacher.

Of course the ways that any lesson unfolded in the classroom would have varied depending on any number of factors: the teacher, the students, perhaps even the weather that week (if this permitted the teacher to gather appropriate specimens for a lesson), or the time of year and the proximity to the day of inspection. It is also likely that different students interpreted the same lesson differently depending on their previous experiences, including their gendered experiences of common objects. The multitude of possibilities that could emerge from a single object lesson meant that the lessons required management in order to accomplish specific learning outcomes, and the different ways they were managed can tell us about how educators hoped Victorian children would grow up to see the world around them.

Mayo's texts worked to manage the interpretive possibilities of the object lesson by providing a narrative that privileged industry, empire, and things-as-they-are, but this was not the only narrative available. In one of the most frequently cited object lessons of the Victorian period, John Ruskin claimed that English manufactures, 'if read rightly', hold traces of slave labour used in English factories.⁷⁰ A Chartist publication from 1840 also shows that similar lessons could have dissimilar results when informed by disparate ideologies. Written by cabinet-maker William Lovett and tool-maker John Collins while they served a 12-month jail

⁶⁷ Lowe, *Intimacies*, p. 35.

⁶⁸ Lowe, *Intimacies*, pp. 18–19 and 21. See also Tara Puri, 'Indian Objects, English Body: Utopian Yearnings in Elizabeth Gaskell's North and South', *Journal of Victorian Culture*, 22 (2017), 1–23 <<http://dx.doi.org/10.1080/13555502.2016.1258656>> [accessed 3 December 2018].

⁶⁹ Many of the working-class children who attended school also worked. In 1901, it was estimated that 300,000 children who attended school also worked outside school hours. See 'The 1870 Education Act', *UK Parliament Website* <<https://www.parliament.uk/about/living-heritage/transformingsociety/livinglearning/school/overview/1870educationact/>> [accessed 7 June 2019].

⁷⁰ John Ruskin, 'The Nature of Gothic', in *The Works of John Ruskin*, ed. by E. T. Cook and Alexander Wedderburn, 39 vols (London: G. Allen, 1903–1912), X, 193.

sentence for libel, *Chartism; A New Organization of the People* outlines a Chartist plan for education. Like Mayo, Lovett and Collins referred back to Pestalozzi as the source of their pedagogical approach, and promoted the value of object lessons as a means of training perception and reflection.⁷¹ They also promoted industrial looking, explaining that children:

should be taught the importance of *useful labour* and the *value of industry*, by showing them how labour is required for the cultivation of the earth, in order to provide us with food, raiment, and habitation, as well as to convert its productions into articles for our necessity and comfort.⁷²

However, Lovett and Collins criticized ‘those “educationists” who seek to . . . train up the youths of our country to be submissive admirers of “things as they are”’.⁷³ To this end, they explained that children ‘should be made to perceive the injustice of ill-acquired possessions, and to despise every description of luxury, extravagance, and dissipation, which corrupts society, and diminishes the general amount of human enjoyment.’⁷⁴ With Lovett and Collins’s text in mind, we can begin to imagine how a lesson on cotton could vary depending on the ideological positions of the teacher or of the child’s wider community. What remains consistent is an intimate engagement with the object itself, in a context that invites close observation in place of usual patterns of consumption.

If Victorian schoolchildren were being trained through object lessons to look at and learn from material objects, and to observe and reflect in their presence, it follows that the lessons may have cultivated perceptual habits that children could then bring to bear on their understandings of objects both inside and outside the classroom. The perceptual habits that I am describing here are closely related to the method for literary analysis proposed by Elaine Freedgood in *The Ideas in Things*, where she examines objects described in Victorian novels ‘in terms of [their] own properties and histor[ies]’, thereby providing a series of virtual object lessons.⁷⁵ She explains that the next step is to return the objects to ‘their novelistic homes, so that they can inhabit them with a radiance or resonance of meaning they have not possessed or have not legitimately possessed in previous literary-critical reading.’⁷⁶ I want to suggest that object lessons could function similarly for schoolchildren. After closely examining the properties of an object within the educational economy of the classroom, schoolchildren would end up encountering the object again, this time in its usual place in the wider economy of objects, or perhaps in the workplace, where it would now be infused with a modified ‘radiance or resonance of meaning’, to borrow Freedgood’s terms.⁷⁷ And as I have tried to show, not all of these meanings fit comfortably alongside the dominant textual scripts of the object lesson.

Graphic Illustrations

The different possibilities for seeing and understanding objects that I have described here come together in a series of coloured plates published by Thomas Varty in the 1850s entitled

⁷¹ William Lovett and John Collins, *Chartism; A New Organization of the People*, 2nd edn (London, 1841), pp. 47, 72–3, and 89–94.

⁷² Lovett and Collins, *Chartism*, p. 97.

⁷³ Lovett and Collins, *Chartism*, p. vi.

⁷⁴ Lovett and Collins, *Chartism*, p. 98.

⁷⁵ Freedgood, *Ideas in Things*, p. 12.

⁷⁶ Freedgood, *Ideas in Things*, pp. 12 and 5–6.

⁷⁷ Also see Keene, ‘Object Lessons’, pp. 253–8.

Graphic Illustrations of Animals, showing their utility to man, in their services during life and uses after death. Each plate features a central image with the animal to be studied, surrounded by rectangular vignettes that show different uses for the animal. The underlying message of the plates, and the overt message of the series' title, is that students should view the raw materials around them, in this case animals, in terms of their utility. Theological perception is also encouraged by the introduction, which states that one of its purposes is to 'evince the Wisdom and Goodness of God in the subsistence, comfort, and social advancement of his creature MAN'.⁷⁸

In contrast to the object lesson specimen box, *Graphic Illustrations of Animals* prominently depicts labour and global connections. For example, the plate featuring 'The Silk-Worm' includes a representation of a white male silk mercer alongside a white female consumer who examines a swathe of pink silk (Figure 5). On the floor by the mercer's table is a colourful vase that recalls Chinese porcelain imported into England at this time, and hints at the Chinese origins of silk as well as its status as luxurious decoration. The global relationships on which the production of silk products for English markets depended is further demonstrated by the proximity and intermingling of scenes that feature different regions of the world. To the immediate left of the English silk mercer and his customer are figures who are identified by the caption as 'Eastern Silk Merchants', and who convey a generalized Middle Eastern appearance due to their style of dress, the camels by their side, and the architectural domes and minarets in the background. To the immediate right of a group of English women engaged in dress making and millinery are three Asiatic figures in Chinese dress, joined by a caption that reads simply 'Clothing', suggesting that the taste for *chinoiserie* stimulated the English industry pictured in the surrounding scenes.

Another plate, this one featuring 'The Cochineal and Lac Insects', shows more explicitly how finished products depend on resources and labour from around the world (Figure 6). The central picture identifies the animals as originating in Asia and South America, and the surrounding vignettes are captioned to indicate that some of the labour involved in harvesting and processing cochineal and lac insects occurs in these areas as well, such as 'Gathering Stick Lac—Asia' and 'Crossing the Andes with serons of Cochineal'. The labouring figures in the vignettes are pictured with a variety of skin tones, signifying their different geographic origins and locations, and showing that labour is one of the resources to be exploited, along with plants, animals, and other materials found around the world. Though people of different skin tones are not found side-by-side within a single vignette, the proximity of the scenes to one another points towards connections between distant geographic areas, and show the ways that 'differentially laboring peoples' from across different continents, to borrow Lowe's terms, are linked by processes of extracting, producing and consuming common objects.

In some ways, then, the plates of *Graphic Illustrations of Animals* highlight the colonial intimacies described by Lowe. But at the same time, intimate looking is eliminated as a possibility since the sensuality and intimacy of the objects themselves are absent. Vision alone, rather than multisensory perception, is required to take in the objects represented in the plates, and the gaps between raw materials and finished products are filled by illustrations that describe steps in the manufacturing process. Here, both textual and material scripts are bound up together in each plate, which also has the effect of closing down the potential gaps in meaning where a more intimate type of looking and learning might take root.

⁷⁸ *Graphic Illustrations of Animals, showing their utility to man, in their services during life and uses after death* (London: Thomas Varty, c. 1854), unpaginated.



Figure 5. ‘The Silk-Worm’, in *Graphic Illustrations of Animals* (London: Thomas Varty, c. 1854), plate 17. British Library, General Reference Collection 1299, pp.18. Image courtesy of the British Library.

3. THE PICTORIAL OBJECT LESSON

The use of pictures in object lessons points towards the later history of object lessons, when they seemed to have devolved into the very kind of mechanical practice that Pestalozzi and Mayo were seeking to avoid. As Jane Martin and Joyce Goodman have commented: ‘In applying these principles to state-regulated schooling . . . the Pestalozzian object lesson was more often misused than well used. Policy-makers at the local, regional and national level were enthusiastic but in the schooling of the urban poor what was realized frequently became repetition and rote learning.’⁷⁹

At the start of the 1860s, under the leadership of Robert Lowe, the Committee of Council on Education worked towards codifying a curriculum in order to simplify the system of annual grants and inspections. The result was the Revised Code of 1862, which divided the curriculum into three clear categories: reading, writing and arithmetic. The Revised Code also instituted a system of ‘payment by results’, whereby annual grants were calculated based

⁷⁹ Jane Martin and Joyce Goodman, *Women and Education, 1800–1900* (New York, NY: Palgrave Macmillan, 2004), p. 87. See also Anne Bloomfield, “Mrs. Roadknight Reports...”: Jane Roadknight’s Visionary Role in Transforming Elementary Education’, in *Practical Visionaries: Women, Education and Social Progress 1790–1930*, ed. by Mary Hilton and Pam Hirsch (Harlow, England: Pearson Education, 2000), p. 167–182; and Larry Prochner, Ailie Cleghorn and Jennifer Drefs, ‘The 200-Year Legacy of Infant Schools’, *YC Young Children*, 70 (May 2015), pp. 102–105.



Figure 6. ‘The Cochineal and Lac Insects’, in *Graphic Illustrations of Animals* (London: Thomas Varty, c. 1854), plate 19. British Library, General Reference Collection 1299, pp.18. Image courtesy of the British Library.

on the performance of each individual student in the school. Though subject to incremental annual revisions, the Revised Code of 1862 was in place for 20 years, and according to many critics, it contributed to a system that rewarded rote learning and meaningless recitations over the kind of observation and deep learning that an ideal object lesson promoted.⁸⁰ In the meantime, the educational system continued to expand, first with the 1870 Education Act that established school boards to open and maintain schools, and then with the 1880 Education Act that made school compulsory for children aged five to 10, later raised to age 11 in 1893 and age 12 in 1899.⁸¹

Amid these changes, the Committee of Council on Education, now led by A. J. Mundella, instituted a new curricular code that introduced optional subjects and a modified system of inspection that was intended to address the apparent problem of rote learning in the schools. To this end, the New Code of 1882 specified that first-hand observation must be used in

⁸⁰ Henry Midgley, ‘Payment by Results in Nineteenth-Century British Education: A Study in How Priorities Change’, *The Journal of Policy History*, 28 (2016), 692–5; Catherine Robson, *Heart Beats: Everyday Life and the Memorized Poem* (Princeton, NJ: Princeton University Press, 2012), pp. 57–64; Janice Schroeder, ‘Victorian Education and the Periodical Press’, *Victorian Periodicals Review*, 40.1 (2017), pp. 679–685; and Sarah Winter, *The Pleasures of Memory: Learning to Read with Charles Dickens* (New York, NY: Fordham Press, 2011), pp. 243–54.

⁸¹ ‘The 1870 Education Act’.

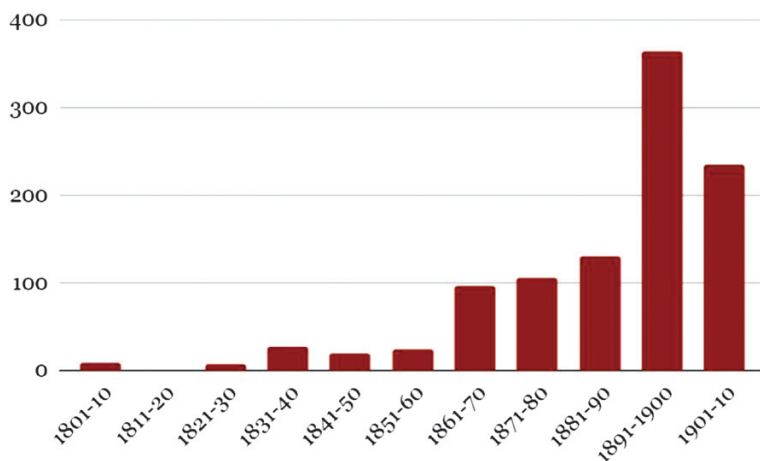


Figure 7. Number of Books in WorldCat with 'Object Lessons' in Title.

elementary science, though the subject was still optional.⁸² By this point, object lessons came to be employed not only to cultivate observational skills, but also to convey information about a particular subject. In 1895, the code was revised further, with object lessons included as a mandatory feature of the elementary curriculum for all students.⁸³

As object lessons were integrated into the curriculum, materials produced commercially as aids to object lessons proliferated, with the number of books on object lessons growing dramatically. This is demonstrated by a simple search in Worldcat, which shows that the number of books with the term 'object lesson' in the title that survive in library collections rose dramatically in the 1880s (Figure 7). Within these books, pictures often stood in for objects, much as they did in the plates that made up *Graphic Illustrations of Animals*.⁸⁴ There are a number of factors that may help account for this shift from objects to pictures, including changing technologies that made illustration more efficient, and financial incentives on the part of publishers to produce and sell books. Another factor is that as the object lesson spread beyond the infant schools, the lessons were increasingly used to teach the content of class subjects, such as elementary science, and so specific information came to be emphasized over generalized observation. In other words, it became increasingly important to standardize what was to be observed. But I also want to propose that the shift away from a purist approach to the object lesson was in part the result of difficulties involved in managing the meaning of material objects.

One object lesson handbook from 1891, David Salmon's *Longmans' Object Lessons*, helps demonstrate this shift as well as the changing priorities of the object lesson. Like Mayo, Salmon believed that actual objects were best for teaching and learning. However, unlike Mayo, he allowed that 'pictures are worth having when nothing better can be had', since 'the

⁸² *Report of the Committee of Council on Education (England and Wales), 1881–82* (London, 1882), pp. 134–5, in *Proquest U.K. Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 11 June 2018].

⁸³ *Report of the Committee of Council on Education (England and Wales), 1894–95* (London, 1895), p. 315, in *Proquest U.K. Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 20 December 2018].

⁸⁴ For examples, see *The Graphic Object Reader*, ed. by M. T. Yates (London and Glasgow: William Collins, Sons & Co., 1898); *Dent's Object Lesson Pictures* (London: J. M. Dent & Co., 1903); and *English Composition through Picture and Object-Lesson* (London: Blackie & Son, 1901).

communication of useful knowledge' should 'be kept in view in all the lessons'.⁸⁵ Salmon thus moves away from the core idea of the object lesson – that students should cultivate their perceptive faculties as an end unto itself – to a modified version where sustained perception becomes the means to an end.

In one section of the book, Salmon outlines the characteristics of a good picture, and here the concern to communicate useful knowledge comes to the fore, especially as he champions a type of simple communication to which Mayo certainly would have objected. He explains that 'a drawing on the blackboard may often be used instead of or with printed pictures', and lists several advantages:

1. It awakens interest by being produced before the class.
2. It assists the attention and the memory by presenting only those details that the teacher wishes to emphasise.
3. It is always available.
4. It can be more easily copied by the children than an elaborate printed picture, and the act of copying will help to fix the lesson in the mind.⁸⁶

The second and fourth items in the list are especially telling, since they suggest that such a picture will distil only useful information, thus relieving the students from exerting their own faculties in order to discover the information for themselves. Such a picture is also 'more easily copied', which ensures that students both receive and preserve the information intact. In effect, while a drawing on the blackboard trains students to pay attention and to learn through perception, it also streamlines what is to be learned by eliminating the complexity and challenge of actual objects, and thereby reducing the potential for alternative interpretations. In addition, with a drawing on the blackboard, all students could participate in the process of observation simultaneously and at a distance, which also eliminated some of the potential intimacy of an individual and close encounter with the objects of object lessons.

At the outset of the twentieth century, 'nature study' began to replace the object lesson.⁸⁷ Though the two approaches shared the underlying principle that students must learn from direct observation, nature study eliminated the manufactured object. The scope of nature study was defined according to conventional distinctions between nature and culture, grafted onto a divide between rural and urban. This can be seen in the Board of Education's *Suggestions for the consideration of teachers* from 1905, which explains that students in a country school will 'satisfy the requirements of the Code . . . in the daily life and surroundings of the scholars'. In contrast, for students in the town school, nature study will 'afford a means of opening the eyes of the children to a world which they have but little opportunity of learning instinctively'.⁸⁸ Meanwhile, manufactured objects such as 'cotton, flax, and wool' were considered more appropriate to lessons in geography that moved beyond observation of the objects themselves to depend on 'information about common things which cannot be acquired directly from the object', such as 'their source and production'.⁸⁹ Yet such objects are absent from

⁸⁵ David Salmon, *Longmans' Object Lessons: Hints on Preparing and Giving Them with Full Notes of Complete Courses of Lessons of Elementary Science* (London: Longmans, Green and Co., 1891), pp. 18 and 9.

⁸⁶ Salmon, *Longmans' Object Lessons*, p. 24.

⁸⁷ Board of Education, *Code of Regulations for Public Elementary Schools* (London: HMSO, 1905), p. 2, in *Proquest U.K. Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 20 December 2018].

⁸⁸ Board of Education, *Suggestions for the consideration of teachers and others concerned in the work of Public Elementary Schools* (London: HMSO, 1905), p. 48, in *Proquest U.K. Parliamentary Papers* <<https://parlipapers.proquest.com>> [accessed 20 December 2018].

⁸⁹ Board of Education, *Suggestions for the consideration of teachers*, p. 46.

the sections of the document that discuss geography. By this time, manufactured objects had moved out of the classroom and were increasingly understood according to the logic of the commodity, which obscured the intimacies and other alternative meanings that can emerge from a thoughtful engagement with material objects.

ACKNOWLEDGEMENTS

This research was completed with the assistance of Lauren Von Bechmann at the V&A Museum of Childhood, Dr Jane Desborough at the Science Museum, Dr Michael Finn at the Museum of the History of Science, Technology & Medicine at the University of Leeds, Phaedra Casey at Brunel University London Archives, Mark Copley at the British Schools Museum, and research assistants Emma Hua and Dani VanDusen. Along the way, I benefited from feedback and suggestions from Julie Codell, Elena Chestnova, Amy Coté, Christopher Ferguson, Anne-Marie Link, Sarah Ross, and Jessica Straley. I am also grateful for suggestions from the *Journal of Victorian Culture*'s anonymous reviewers.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

FUNDING

This work was supported by an Insight Development Grant from the Social Sciences and Humanities Research Council of Canada.