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Chandling the Scholar

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I once asked a new acquaintance about his family in Baltimore. He withdrew a bit and answered in the tone of a question, “Ship chandlers?” He knew that most
people were puzzled and so he then answered his question: “You see, a ship chandler outfits a ship for its voyage.” His family had been doing this since the eighteenth century. I recalled Melville’s account of the last days before the Pequod sailed, when merchants loaded it with its food provisions and after them at he last came Ahab’s Quaker aunts with jars of pickles and preserves. But I had not ever heard of chandling.

That one who supplies a ship is called a ship-chandler and works out of a chandlery is the use of “chandler” as a retailer extended from “chandler” as the maker or supplier of candles. The extended use from at least the mid-seventeenth century and commonly in the eighteenth and nineteenth centuries, though I found it persisting in Baltimore some decades ago. The candle-making chandler, in his chandler-shop, is much older. It comes of course from candle, which entered English from the Latin candēla even before the Norman Conquest. Everyone who could afford it went to the chandler because light was nearly as important as food itself.

Among the candle-maker’s customers was the scholar, as student and as doctor. In the history of scholarship we commonly think of the supplies for writing that the scholar required and we know that each of these goods linked the scholar to the commercial world as well as to other scholars. To understand that scholars needed chandling in the extended sense is one of the tasks of this blog and of our endeavor to account for early modern scholarly networks.

They also needed chandling in the narrow sense because they needed indoor lighting. Yet rarely in our accounts do we think about the lighting by which scholars worked. Candles were one specialized type of lighting, the story of which helps to characterize aspects of the development of scholarship in Europe and the Americas. Candles themselves, by their nature, do not survive. It is rare to find discussions or depictions of reading by candle-light even in old accounts of studying. Oil-lamps, perhaps the earliest lighting technology, were used much more commonly in the middle ages into early modernity, but the chandler’s trade grew along with the whole structure of European and then New World learning as the prosperity of Europe and the British American colonies vastly increased throughout the eighteenth century. A good hypothesis is that the increase of teaching, studying, learning, as well as of the world of reading, was one of the causes of the greater prominence of candles over lamps in the eighteenth century, when candles were used profusely in universities, salons, homes, libraries, and studies of scholars and of their patrons and students, glinting off the gilt calf and morocco backstrips of the multi-volume sets more and more printers produced. The candle then aided the increased circulation of knowledge that material wealth made possible. There never
had been so many candles or such large chandeliers as there were wherever there was wealth in the eighteenth century, and there never would be again. The poor scholar too shared in the network of farmers, artisans, consumers, and the learned that the candle created.

Figure 2: Circle of Joseph Wright of Derby, *A Young Artist Holding a Lighted Candle, Inspecting a Model of Crouching Venus*, (c. 1750), (Sotheby’s, London, sale of 8 May, 2017, lot 288).

Furnishings and tools for the use of candles proliferated with increasing candle-illuminated prosperity and scholarship, but here I will focus on just the candle itself
and particularly on the eighteenth century as the period in which candles activated scholarly interaction. Also, I’ll focus chiefly on English and American references for the sake of convenience. Neither of these particulars, though, ought to limit interest in what light the development of interior illumination for scholarship from early modernity into the era of the electric light can shed on scholarly networks, which this post is intended to stimulate.

The poorest scholars could not afford proper candles at all, much less prickett or “socketed” (or “nozzle”) candle holders or brass wick-snuffers or the mirrors or polished silver or brass pattens propped behind the candle to amplify its light. In fact, most households did not own candlesticks because the candle itself was a luxury, being a less efficient use of fuel than a lamp and wick, until both wealth and the consequent desire for public display and interaction altered peoples’ desires and the possibilities for their fulfillment. Only at in the hall or library of a wealthy college would they see the array of candles that the chandelier, made by metal-smith or carpenter, or even the glass-maker, held.

Students’ and scholars’ experience of indoor lighting when studying was for the most part nothing like that. While they might see a copper or ceramic lantern at school or in the home of a well-to-do friend, unless the room in which they studied was extremely drafty, a lantern would have done them no good because it cuts away the very modest light that a candle sheds. At most someone might have used a water-filled glass globe to focus and magnify candle-light; convex mirrors also served this purpose when France and Britain broke the Venetian monopoly on glass around the turn of the eighteenth century and manufactured better and cheaper, as well as larger, panes.
Like most of the poor, poor students used rush-lights, a kind of candle made of peeled stalks of the grass *Juncus* drawn through what inedible fat was left of hog meats in a grisset and then dried. One might have an iron holder, but one could get by propping it up in the split in a piece of wood. These were made at home; no merchant supplied them. A poor student learned the simple art as a child, and at school he depended as much for light on scrimping from his food to fuel his lamp or to grease rush as he had done at home.

The animal fat, however, was common to candle-making as well, since the candles most people used were made of tallow. As with parchment, vellum, and binding materials, scholarship depended on the livestock trade. After the farmer sold them to the slaughterhouse in town, it was a brutal affair for the animals. They were knocked, axe-split one way, then the other, their quarters dumped into immense vats and boiled into grease. Candle-making was by dipping braided cotton thread or hemp or flax peelings into beef and mutton tallow again and again layer over layer, by drawing the wick through the tallow, or sometimes by ladling tallow
over the wick; or in tin moulds, which gave a better class of product (Campbell, 270–271; Hinton, 228–232). The good tallow candles were near-white, from the first skimmings. The rest, adulterated with hog fat, proceeded down the quality and price scale to those that were grimy, almost fecal; their smell was putrid, and they sooted the air of the cell, study, and library with the last vestiges of the animal.

In the middle ages and for much of early modernity only princes and the Church could afford wax candles. The fat or tall candles called morters and perchers were strictly for churches. In the 1770s in Britain just unformed beeswax cost two and a half times as much per pound as tallow candles (Millan 12). Beeswax was imported into Britain from the Middle East via Venice, refined and, for the best grades of production, bleached, and then moulded into candles (Crowley 119). A good candle for reading and study was as white as possible. Sometimes candles were made of differently-colored braided tapers, and there survives a liturgical candle with extraordinary painted and gilt decor at the British Museum (1965,0403.1), but it was entirely for ritual use, and no scholar ever read by it; our parti-colored candles are machine-age fetish commodities. In the mid-fifteenth century in Britain, wax candles were six times as expensive as tallow candles (Egan 134). Spermacetti candles were an American invention, made to the near-extinction of the right whale and whale species off Cape Cod, that was exported to Britain.
Both the purest wax and the stinkiest tallow candle demanded more than either money to buy it with or tolerance of smoke. The scholar really had to work at keeping the candle going. Even most good wicks wanted trimming, or “snuffing,” every quarter-hour or so. And how to pick out the snipped off bit of wick? This was a constant chore for everyone. One candle per night was the usual ration in Britain and America, enough to make it to bed soon after dark. Studying at night required great determination, as well as coin in the pocket: the light of a single candle was small, dim, and wavering.

Candles in Britain were taxed with rare determination. The chandlers’ guild, firmly organized in the fourteenth century (into the present day, headquartered on the same City of London parcel of land it started on; the first lettres patentes of the Parisian guild of chandeliers is 1291 according to the Statuts of 1745), published one protestation after another at the increase of rates. But the Crown just augmented the rigor of its means of collecting these taxes. With some three to four thousand chandlers in the kingdom, making 30 to 60 million pounds of candles, and more, per year, the need for interior light brought significant revenue (Dillon, 43).
For every minute the scholar had light he paid into the maintenance of the government.

Tallow chandlers and students were in nearly the same economic class, although their social status was very different. With the rare exception, chandlers were among those small shopkeepers who could barely support their existence (Mui 110–120). Students and most scholars moved in the same impoverished sectors of their communities as working-class tradesmen did, and they were subject to the same social problems, such as the gambling and drinking that ruined many academic careers. As was true in many retail trades, there were too many tallow chandlers for the market throughout Britain. Similarly, there always seems to be more students and learned than a nation is willing to keep employed and fed.

The students and their masters were of course mostly male in early modernity. But, as with food and washing and other necessities, women supported their scholarship. Making candles was largely women’s work at home but men’s work at the chandler’s, as plates from Dictionnaire des Arts et Metiers and the Encyclopédie show. Both men and women bought candles at medieval market stalls. But as shopping moved more and more from workshops into retail shops during the eighteenth century, it became largely women—servants, wives, and daughters—who shopped for candles, bringing what was good and cheap by the dozen into the home or college in their shopping baskets from the town’s chandler or, among the more prosperous as the eighteenth century progressed, from shops that sold a broad run of quality goods.

Soap came to be sold with candles, because both were made with tallow; other products joined them on shop shelves. With the inrush of colonial wealth and with what seemed at the time to be the rapid pace of invention, things were now to be cleaner and brighter in the enlightened century. One choice from an array of goods at shops that competed for custom. Assembly halls and theaters as well as private homes were more brightly lit by numerous candles displayed in more and more fancy sconces, girandoles, and chandeliers and tended by larger domestic staffs. Candle-light enlarged social display, powering the emerging scopophilia of the civilization as an aid both to work and to pleasure—particularly on account of its erotic connotations. In both schools and industry, the sense that knowledge of both the natural and the human worlds was beneficial encouraged its increase, and the scholarly world could look out on, and eventually reflect on, the intensification of communication and interaction in a world in which the light of knowledge was to dispel black ignorance just as sconces laden by candles with better wicks and longer-lasting wax brightened the darkness.

It was not only for reading that scholars bought and used candles. The
candle allowed certain manipulations of light useful to the artist and draughtsman. Anyone who wanted to experiment with optics and perspective likely also used candles, though sunlight was preferable when it was available. And like the student and his teachers, artists and scientists needed candles for indoor lighting. Candles were an increasing source of light common to all artistic and intellectual work in early modernity up until the invention and installation of gas illumination.

But what of scholar in their rooms? In the eighteenth century, speaking on the whole, they became more and more able to study in the night hours. In the library or laboratory work was not so readily frustrated by cloudy seasons. And they too are sociable, for if you can have a light in your room you could meet with other students. If more lighting is available in the inn than it there had been, the public scene in which students could meet or form clubs was more attractive than when the inn was sooty and smelled of hog fat. The rise of student clubs, such as fraternities and secret societies, was in part due to the sociability that cheaper and better candles made possible. The same would be true of the social lives of their teachers. And on this basis, academic organization on larger scales and with widening geographic scope grew quickly as gas lighting improved indoor conditions and enlivened the night. Internationalization of scholarly enterprise (and other enterprises), as well as the systematization of knowledge, proceeded at pace with the technology of artificial indoor lighting. In this respect, the gradual replacement of oil lamps by wax and spermacetti candles and their commercialization as consumer goods in the long eighteenth century was a crucial phase.

Alone in his room, or there with a fellow student, however, the single candle, stuck on a cheap candlestick, was an ambassador from the great world as well as a guide from the past. Here light did not necessarily rationalize or publicize pleasure. A scholar peering into Greek grammar or trying to illumine a secret of nature was a very lonely sort of dandy, if he wanted to be a dandy, at least while devoted to study. He might be pale or “catarrhic,” enervated or phantasmagoric. Candle-light was associated with these things within college walls just as much as it suggested feminine ardor and excesses of pleasure in a society with a rising standard of living that required stronger indoor and night lighting. For the learned, the candle, in addition to being useful, was also a space for dreams. Its weak and quivering light, in which many colors were wan and some invisible, was poor for reading or for looking. But it readily suggested other worlds of the imagination, from the present as well as the past. The indistinctness of objects under its light perhaps encouraged invention; or showed shadows of a higher world, as firelight had shown for ages; or stood in for the hope of knowledge of which light was the most enduring emblem.
List of works consulted

Illustration captions
Figure 1:
Mathias Stom (fl. 1615–1640), *Young Man Reading by a Candlelight* (Nationalmuseum, Stockholm).

Figure 2:
Circle of Joseph Wright of Derby, *A Young Artist Holding a Lighted Candle, Inspecting a Model of Crouching Venus*, (c. 1750), (Sotheby’s, London, sale of 8 May, 2017, lot 288).
Figure 3:

Figure 4:
Trade card of Joseph Palmer, Boston, c. 1760.

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