



American Lucifers: The Dark History of Artificial Light 1750-1865.

Jeremy Zallen

Chapel Hill: University of North Carolina Press, 2019.

ISBN No. 9781469653327.

276pp. + Index, Notes, Bibliography. Illus.

[American Lucifers | Jeremy Zallen | University of North Carolina Press \(uncpress.org\)](https://www.uncpress.org/)

Review by Shelby Shapiro. Review first published online 8 May 2023 and will appear in Volume 10 of *The Independent Scholar*.

Jeremy Zallen has written a political economy—a labor history—of pre-electric artificial lighting, basically going from candles to kerosene (and beyond). This is less a history of changing technologies and more an unveiling of the toils and troubles encountered and involved in the production of different forms of light, starting with tallow candles, whale oil, turpentine, coal gas and oil, lard oil, sulphur matches, and kerosene. He takes each of these energy forms and examines their production and distribution, including the products necessary for using them, as well as the side effects for producers and, to a lesser extent, consumers, from boats to barrel staves, match frames to miner's lamps. The greatest strength of this book lies in its granular description of these processes. Suffice it to say that I have not been able to look at a candle in the same way I did before. Zallen's writing often borders on the lyrical – even where his conclusions are questionable.

Form follows failure, not function. This path for design was described by Henry Petroski, an historian of engineering, in the titles of one of his many books: *To Engineer Is Human: The Role of Failure in Successful Design* (1994). So too with artificial lighting: Zallen points out in great detail the injuries sustained by those extracting, refining and using various lighting

commodities or systems. These dangers would be succeeded by dangers of a different character as new forms of lighting became available. Zallen notes that different forms of artificial lighting coexisted: "Gas was the unquestioned light of an industrially enlightened future. All over the United States, from New York, Boston and Philadelphia to New Orleans, Baltimore and even whale-crazed New Bedford, gasworks were sprouting up, expanding, and thriving in cities still overwhelmingly illuminated with camphene, oil and candles." (p. 97) Success – however defined – was neither linear nor inevitable.

Zallen pays attention to the diversity of the work force: by gender, age, race, skill. One of the more interesting sections deals with Black whalers, including one Absalom Boston, who captained an all-Black crew. The heavy involvement of Quakers in the fisheries helped to protect runaways from slave-catchers. This kind of attention about who was doing what is another strong aspect of this book.

For all its virtues, this book does present problems. In the Prologue, Zallen warns readers:

"We should resist conflating relations of oppression: enslavement was not the same as

marriage as keeping animals captive was not the same as child labor. But we should also resist enshrining a hierarchy of what-was-worse-and-better without thinking about how all these struggles related to and constituted one another. So long as we allow ourselves to think that being free was 'better' than being enslaved, that living human was 'better' than being an animal, that leisure was 'better' than labor, all we're really saying is that power was better than weakness, which is perilously close to saying that the powerful were better than the weak. It may be counterintuitive, but if we can't learn how to be truly free, we'll find far wiser teachers among those who lived as livestock than among those who lived as farmers, as children rather than adults, as colonized rather than colonizers, as unfree rather than free." (p. 9)

The problem is that Zallen is doing exactly what he warns us against. I know of no slave who held that liberation from slavery (i.e., that being free was "better" than being enslaved) came "perilously close to saying that the powerful were better than the weak." If we reject, for example, the proposition "that being free was 'better' than being enslaved," why did he even bother relating stories of slaves in revolt? And we may take a further step: why bother revolting? "Perilously close to saying" implies a logical connection. How many former slaves enslaved or sought to enslave their former masters?

Notably, Zallen nowhere defines "power." He appears to be making power synonymous with domination and coercion. But "power" can mean much more than domination, including the ability to effect changes, without coercion; exercising agency; allocating necessary resources, etc.¹

¹ See, e.g., Giddens, Anthony, *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, Berkeley: University of California Press, 1979, pp. 88, 91-94; Elias, Norbert, *What Is Sociology?* NY: Columbia University Press, 1970, 1978, pp. 74, 92; Sahlins, Marshall, *Apologies to Thucydides: Understanding History as Culture and Vice Versa*, Chicago: University of Chicago Press, 2004, pp. 143-147

Zallen writes that "(t)he future of American light from the viewpoint of 1860 appeared inextricably tied to an expansion of industrial enslavement, sweated outwork, and child labor." (emp. added) (p. 7) Technologies, of course, do not exercise agency. Would or could "industrial enslavement, sweated outwork, and child labor" have increased without changing technologies of artificial lighting? Would or could these forms of exploitation have existed or increased without the invention and improvement of the wheel? And was labor exploitation the intention of the inventors of various forms of artificial lighting or the wheel? To what extent were these evils the unintended consequences of actions taken for other purposes?

In writing about the production of lard and lard oil, Zallen states that

"looked at from another perspective, farmers and drovers were merely the overseers of the real work of making pork and lard, which was done by the hogs themselves. It might be counterintuitive, but to see the full range of the human geography of pork and candles requires first centering hogs in the story as actors". (p. 138)

After relating the story of a farmer who dressed a sow with a bear skin, Zallen wrote that

"(t)he consolidation of hog trails around corn and feedlots was, to be sure, largely a process of geography and market relations. But it was also the result of insurgent marginal farmers, resistant hogs, and bearskin-clad terrorist sows." (p. 153)

"Bearskin-clad terrorist sows"? While no doubt the sow scared the "resistant hogs," Zallen's referring to the sow as a "terrorist" imparts a particular intentionality on the part of the sow herself.

Reading the account of the march to death in the pigpen archipelago (p. 139), I recalled a class discussion in the 1990s following an assigned reading of *The Jungle* (1906), written by the Socialist muckraker Upton Sinclair to expose the evils of capitalism. Its depiction of meatpacking plants led to the Pure Food and Drugs Act, and Sinclair's

subsequent complaint in 1908 that “I aimed at the public’s heart, and by accident I hit it in the stomach.” As the professor went around the class asking for each student’s reaction, predictably there were a number who declared themselves to henceforth becoming vegetarians. One student said, “I ate my hot dog, and then I cried!”

One of the few instances of humor in the book was the reproduction of a *Vanity Fair* engraving from April 1861, “Grand Ball Given by the Whales in Honor of the Discovery of Oil Wells in Pennsylvania.” It depicts a large number of whales in party dress—gowns and tuxedos, toasting each other with glasses and bottles. In the background are several banners, including “We Wail No More” and “Oils Well That Ends Well.” (p. 243).

This is a complex book. The depth, width and amount of research done by Jeremy Zallen was incredible, and should serve as an example for others. Though not without its problems, this reviewer would recommend it, both for the answers it gives and the questions it raises.

Shelby Shapiro (Ph.D. American Studies) is currently Associate Editor of *Records of the State of Connecticut*. He is a Yiddish-English translator, and his research interests include Jazz and Blues (having presented jazz radio programs for nine years), the labor movement, the First World War, and immigrant anarchism.

