

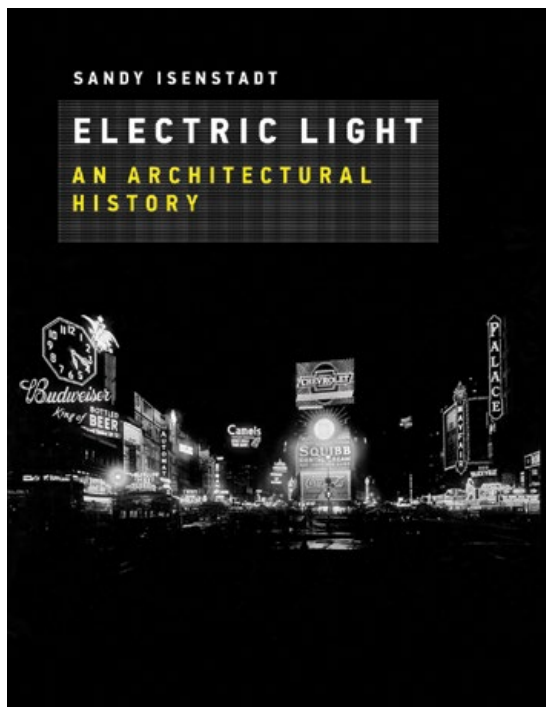
BOOKS

The Medium of Modernity

TAYLOR STONE

Artificial illumination occupies a paradoxical position in modern daily life. It is a ubiquitous technology, pervading almost every interior space and shaping nighttime environments. Yet despite (or perhaps because of) its omnipresence, artificial light remains in the backdrop of daily life, rarely noticed or appreciated. As a quick exercise, try counting and categorizing the number of lights you pass on your next evening commute. The totality of lights—streetlights, porch and security lights, light shining out from homes and office windows, vehicle headlights, traffic signals, billboards, shop signs, and digital screens, to list but a few—creates a seemingly inescapable sea of artificial illumination within which we now live. In *Electric Light*, the architectural historian Sandy Isenstadt brings attention to the generative force of artificial illumination, and electric lighting in particular, through detailing its complex social history and the various ways in which it has shaped modern life. By drawing attention to the profound influences of electric lighting over the past century, Isenstadt posits that it can be understood as the very medium of modernity.

Isenstadt convincingly presents his argument at the outset, explaining that artificial light “was as fundamental to the making of the modern world as any system of transportation, communication, or energy and as momentous as industrial urbanization itself.” It is a technology fully intertwined with the social, economic, and spatial experience of the



Electric Light: An Architectural History
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twentieth century. Yet he also goes a step further, explaining that artificial illumination, and electric lighting in particular, created a new way of understanding, experiencing, and inhabiting the world—what Isenstadt terms “electric modernism.” This is the central idea weaving the book together, and Isenstadt investigates the concept through explorations of how, where, and why electric illumination came to shape modern spaces, perceptions, and behaviors.

Electric Light is a fascinating read about the sociocultural impacts of illumination, offering insights for those with a casual interest in lighting, as well as folks (such as myself) in the deep end of artificial light as a niche research

subject. And it includes a wealth of photos, paintings, and diagrams that bring a further degree of richness to the text and serve to illustrate the central narrative. The book limits its analysis to the early decades of electrification and the introduction of electric lighting, roughly the late 1800s through the mid-twentieth century. The body of the book is composed of five chapters—covering the light switch, nighttime driving, factory lighting, advertising and billboards, and World War II blackouts—each providing an in-depth case study examining an aspect of how electric light has shaped modern life. Although each chapter explores and reinforces the book’s central idea of electric modernism, there isn’t a continuous narrative. Further, as a thorough historian, Isenstadt includes a wealth of interesting

but somewhat trivial (and occasionally tangential) historical details. I suggest that readers feel free to pick chapters—or even chapter sections—based on their own discretion and interests, as this should not detract from the quality of insights Isenstadt provides.

That said, the chapters effectively combine to clarify the multifaceted idea of electric modernism and the extent to which electric light has permeated modern life. The first case tells the story of the light switch—a seemingly mundane invention, but one that helped to domesticate electricity. In the late nineteenth century, electricity was still a mysterious and powerful force outside ordinary experience. The switch gave the average person dominion and mastery over electric light, and thus a new level of control over the illumination of spaces. The ramifications were far-reaching, changing domestic habits (e.g., eventually the switch came to replace

various household chores), reinforcing gender biases regarding technological literacy (e.g., women were supposedly “confused” by switches and had trouble adapting), and creating a new form of political theater (e.g., the public lighting of a Christmas tree or opening of an exposition).

In analyzing the lasting influence of the light switch, Isenstadt frames its effects via the philosopher of technology Albert Borgmann’s “device paradigm”: for all its magic and convenience, the light switch also separated the commodity (illumination) from the production and processes that create it. We now have access to illumination “at the flip of a switch,” with little regard to or knowledge about how it works or what powers it. In this way, Isenstadt shows how a seemingly benign innovation—the light switch—alienates people from technological processes and functions endemic to modern, urbanized life.

The next two cases explore the connection between electric lighting and other shapers of modernity, namely the automobile and the factory. First, Isenstadt shows how the intersecting inventions of electric lighting and cars created an entirely novel activity: night driving. This is placed on par with cinema as the two most important novel visual experiences of the early twentieth century. Alongside this new aesthetic experience, night driving required novel laws and regulations. It spurred new fields of research (and public concern), such as the health issue of “dazzle” caused by glare, or safety standards linking braking time to headlight visibility. But at a more profound level, night driving created an unmistakably modern way of experiencing the world at night. Indeed, Isenstadt points out that through learning to manage this conglomeration of new technologies, and learning to understand the world presented via headlights, we became modernized in the process.

Isenstadt next elucidates the formative influence of electric

lighting on factories—another driver of modernity. It is easy to forget that before efficient and bright artificial light, working at night was much more difficult and carried out only when necessary. Electric lighting did what neither natural light nor previous forms of artificial light (candles, oil, or gas lighting) could: provide a consistent, uniform, safe, and reliable source of illumination adequate for manual labor. Factories were effectively freed from the operational and design constraints of natural lighting, and instead could be organized for efficiency in the production process. And like all other processes aimed at efficiency, lighting, too, was studied and optimized. A well-lit workplace was eventually incorporated into standards and laws, and even took on a moral valence: better lighting was good for workers, the company, and even society as a whole.

The fourth case looks at a specific form of electric light in the public realm: advertisements and billboards, or what Isenstadt refers to as “electric speech.” The chapter focuses on New York City’s Times Square as the original site and continued reference point for electric speech, which created a new type of urban nightscape awash in a sea of illuminated advertising. Isenstadt shows how this illumination is distinctly modern and distinctly American: forward-looking, boisterous, and unapologetically capitalist. Eventually, electric speech spread around the United States and the world, linking capital and commerce with urban identity in a practice that continues to this day in downtown “entertainment districts.” Yet however powerful and provocative these spaces may be, they are also devoid of anything beyond their surface purpose of pushing products—arguably emblematic of a superficiality found throughout modern culture.

The book’s final case looks not at electric light itself, but at an instance when darkness was temporarily reintroduced: during blackout drills in the United States in the lead-up to

and during World War II. Not strictly necessary away from the East Coast (where city lights could silhouette ships and make them vulnerable to German submarines), blackout drills to stymie aerial bombing were still practiced throughout the country. With these, people had to literally relearn how to understand and navigate spaces in darkness, revealing how normalized electric light had become just a few decades since its invention. Interestingly, this also gave new meaning to darkness during blackouts—not as dangerous, but instead as protective. Further, adapting to the darkness became an act of patriotism, a collective will to overcome the darkness of fascism. Americans could endure darkened cities because of the “inner light” of their values. In this sense, explains Isenstadt, electric lighting had come to be identified with national character.

By drawing out the moral and political discussions within *Electric Light*, we can find various insights that deserve further reflection—for example, the gendered nature of lighting; or the links between electric lighting, labor, and capitalism; or the complex intertwining of artificial illumination with evaluations of darkness. Further, the enduring resonance of electric modernism is something we still live with today, and that continues to shape our experiences of the world at night. Much of what is presented in *Electric Light*—flipping a light switch, driving at night, electric speech—has become so normal in daily life that it seems natural. But Isenstadt does an excellent job of revealing the complex origin and history of these practices, and the lasting influence they have on our perceptions and experiences.

Taking inspiration from *Electric Light*, I would like to offer a brief thought experiment. Imagine that an architectural historian, working 100 or so years from now, embarks on an ambitious project to analyze the ways in which lighting influenced the twenty-first century. Artificial illumination

will surely continue to shape (post) modern life, but in what direction? We are currently in the midst of a major lighting revolution, with solid-state lighting (namely, light-emitting diodes, or LEDs) harkening in a new age of lighting. There is a great deal of excitement over this new technology, and a rapidly increasing adoption for indoor and outdoor lighting. LEDs offer many benefits, such as efficiency and controllability, but scientific studies and advocacy groups have raised concerns about their long-term ecological and health effects, their contributions to “skyglow” and other types of light pollution, and even their realizable energy-savings.

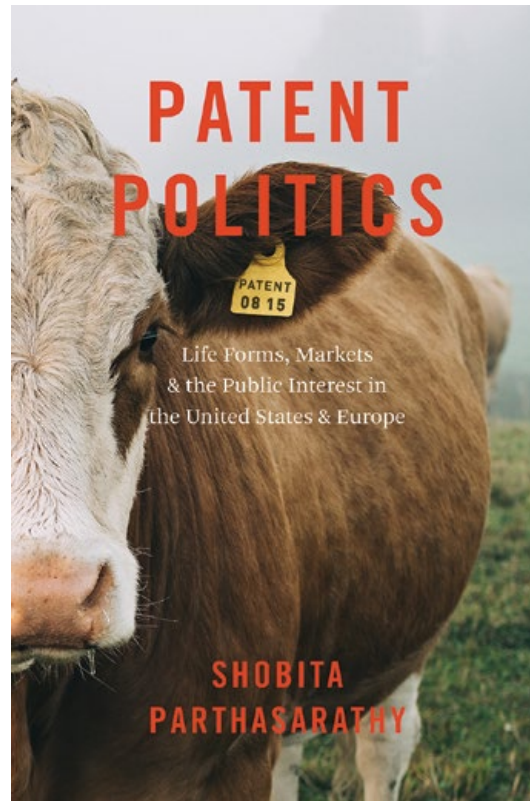
So what will our historian find? What social and political forces will guide the adoption of LEDs, and vice versa? Will they have served narrow commercial interests, or a broader range of social and environmental values? Will they have provided a means to curb light pollution, or exacerbated the adverse effects of nighttime lighting? And will they have served to continue alienating urbanites from the starry night sky, or helped to create a new means of experiencing and interacting with darkness? What sort of medium will the next generation of illumination bring about?

Accepting this new technology uncritically would mean ignoring the lessons we can draw from the cultural history of electric lighting. Further, this next generation of lighting will be layered over the physical and symbolic legacy of the past century of illumination, building on past choices that, although perhaps once contentious, have now faded into normalcy. Through looking back at the history, heritage, and baggage of electric modernism, we are better prepared to look forward.

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Rights to Life?

REBEKAH SIMON



Patent Politics: Life Forms, Markets, and the Public Interest in the United States and Europe

by Shobita Parthasarathy.
Chicago, IL: University of Chicago Press, 2017, 290 pp.

In 1996, the United States Patent and Trademark Office (PTO) awarded patent protection to Myriad Genetics for a gene that it had sequenced, called BRCA1, and a test for diagnosing mutations in the gene that indicated a susceptibility to breast cancer. Myriad, a publicly traded company headquartered in Salt Lake City, wielded its patent's legal authority aggressively, shutting down competitors providing breast cancer susceptibility testing services as well as institutions performing BRCA1 research. The patent was legally justified as a reward for Myriad's technical innovation and contribution to the field of medicine in sequencing the gene. Yet as Shobita Parthasarathy demonstrates in *Patent Politics: Life Forms, Markets, and the Public Interest in the United States and Europe*, the

laws protecting the intellectual merit and market value of such innovative technologies are not always easily reconciled with society's moral underpinnings.

In just under 300 pages, Parthasarathy takes readers on a deep dive into the tumultuous evolution of patent systems in the United States and Europe, first by constructing historical frameworks for each and then by applying them to the systems' different reactions to morally ambiguous innovations in biotechnology, such as the patenting of BRCA1. Patent systems were initially designed to incentivize innovation by offering innovators temporary exclusive rights to make and sell their inventions. However, Europe and the United States each introduced qualifications to the idea of an “invention” early on: European systems