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The aim of Barbara Hahn's book is to offer a new perspective on the grand narrative of the "industrial revolution." In this engaging and instructive book, Hahn gives a synthesis of the central historiographical debates to date and explores at every level the complexities of this mutation, aiming to deconstruct the commonplace ideas and mythologies that it has carried over the centuries. Hahn charts how a profound shift led by the emergence of new technical systems entailed a separation of production and consumption, the shift toward mass production, the establishment of the factory system, and the reorganization of work, giving rise to the working-class population and industrial capitalism. Yet, as Hahn explains, industrialization was never a linear process nor a sudden rupture with earlier forms of production. The development of this new system saw the transformation of preexisting economic, social, cultural, laws, legal customs, and political frameworks. It was the result of a more complex dynamic that unfolded over many decades, a process that was marked by contingencies, local opportunities (foreseen and unanticipated), know-how, and circumstances that would eventually lead to the emergence of a new system. But this transformation cannot be understood without being situated on a global scale and over a long period, embedded in colonial exchanges that had been established in the early modern period.

Hahn’s book passes in review all classic accounts of the history of the industrial revolution, while spinning the metaphor of weaving to thread the narrative differently. Her handiwork results in a new tapestry, one that causes us to see anew the conventional portrayal of the “industrial revolution.” By picking up the established narrative thread on the craft origins of the industrial revolution, Hahn explores textiles. She focuses on this sector of production, especially cotton, and a specific geographical space, Yorkshire and Lancashire. The book moves from the local to global as she resituates textile production in all its complexities and addresses how, through a study of specific mills, each is subject to circumstances and conditions that are both local and global. She presents the reader with a traditional narrative structure of five chronological chapters, drawing on a wealth of data and examples and narrating the stories of well-known (and less well-known) individuals, which allows her to highlight the contingent and multifactorial nature of industrialization at the same time as showing how it was part of a larger story of technological and global changes.

Hahn’s first chapter situates textile production in the long-term context of mercantilism and com-
petitive global trade practices (Calico Act of 1601), the combination of agricultural and artisanal production, and the role played by guilds and specialization. She describes the effects of the combination of reorganizing production, distribution marketing methods, protected domestic markets, and competition abroad, all the elements that gave British textiles “a strong base from which to grow” (p.56). She focuses in a second chapter on machines and the myths surrounding them. She demonstrates brilliantly how their introduction, use, and transformations were the result of a slow and complex process marked by numerous factors. What she shows is how the reality of the introduction and use of machines bears little resemblance to the heroic discourse of genius inventors—an issue explored by Christine MacLeod. [1] To emphasize this point, Hahn shows how the factory system was in near permanent coexistence with the domestic system, which itself remained very efficient: the conversion was in no way as simultaneous as portrayed in the many myth-making singular trajectories of men and machines. She illustrates—drawing on archival sources of the activities of the entrepreneurs, such as the cotton manufacturer Samuel Oldknow (1756–1828)—not only just how gradual the shift from the domestic to the factory economy was. Knowledge and skills that sustained industrialization came from old practices and old networks, just as the “new” machines relied on existing practices nested in established power structures.

The next chapter stages the city of Manchester, “the cotton town,” whose urban space was shaped by cotton production and trade, a transformation that mirrored those of the cotton plantations on the other side of the Atlantic. Bringing slavery and raw material production into the dynamic of industrial revolution, Hahn underlines the interdependence of industry on slavery and exposes their symbiotic relationship. The complicated and changing world she describes brought new commodities (such as fine mousseline) whose introduction fueled further complex social transformations. The appearance of these new commodities prompted the questioning of the system of semi-rural exploitation and the consumption of local production. Production relied still mostly on the quality of the product and product innovation, increasing the types and finishes of cloth rather than cost competition. But in the nineteenth century this was to change. New social dynamics emerged that would realign economic and social relations between town and country and alter conditions of consumption and production.

From these changes new mobilizations emerged. In the fourth chapter, Hahn foregrounds the development of workers’ consciousness (alighting on famous episodes such as the 1826 Lancashire revolt of “Luddites,” as well as the Battle of Peterloo), and trade unionism. She then investigates the change of social and labor organization entailed by mechanization in the UK and US alike and shows the ways in which various traditional systems persisted and overlapped with new systems of industrial production. As machines altered how manpower was organized and managed, the ground shifted further, generating additional transformations of modes of production (moving from the craftsmanship of product quality to cost competition), in response to which new individual, group, and class identities, and aspirations, emerged.

In the last chapter, Hahn uses “the vertical mill” as the ultimate symbol and an extended metaphor for the integration of production and consumption in a single site. With mechanization extending to weaving, and with the change of scale altering the distribution of new materials and finished commodities through newly built infrastructures—roads, canals, railroads—an increase in popular consumption precipitated the transformation of the structure of production and consumption both domestically and across the globe. The Victorian era embodied the triumph of the industrial society, which was on full display in the international exhibitions, a showcase of a new
world in which all socioeconomic relationships were profoundly transformed (within the family, between the sexes and classes, among all stakeholders in the production and consumption chain, from national and international venture capitalists to the working classes of nations).

As a historian of technology, Hahn proposes an original approach to resituate technical devices and the knowledge surrounding them in the making of the industrial revolution. She challenges the mythology of “the men of genius” behind technical inventions and contests commonplaces. She shows how advances in technology were subject to specific processes, which were themselves the result of a long accumulation and bricolage of techniques, subject to adjustments and knowledge transfers. They emerged from networks and collective inventions, which themselves were contingent, embedded in various legal, social, political, and economic contexts that either helped or hindered their workings, and shows how different technical systems (hydraulic and steam machines) coexisted for a while. As one would expect, Hahn runs through these “heroes of invention” and their machines. From John Kay’s flying shuttle and its so-called spinning revolution through Richard Arkwright (1731-92) and his “creation” of the “technological system now called a factory” to Samuel Crompton and his “spinning mule,” Hahn reviews the conditions that saw technology come into being and undergo change, adapting to new conditions and technologies that they in turn affected. In focusing on machines and technologies, she is able to unveil how material life, the environment (and natural resources), the organization of labor, the social and political order, and domestic and global forms of wealth distribution have been transformed.

While Hahn conveys clearly and comprehensively the phenomenon of industrialization from a local/global viewpoint, her focus is narrowly on textiles. Drawing the analysis upon other sectors would have perhaps slightly changed the picture —in metalworking (goldsmithing, etc.), for instance, the particular effects of an “industrious revolution” entailing an intensification of artisanal production in England deeply affected the organization of work and division of labor, not necessarily relying on mechanization.[2] Moreover, the book’s focus is restricted to an Anglo-Saxon tropism—as seen in the bibliography[3]—which, curiously, is accentuated by its decentered approach in which industrialization is studied through the prism of British imperial and colonial exchanges. The result is that Britain’s connections with America and India dominate her analysis entirely. The various temporalities and forms of industrial pathways taken in continental Europe[4] remain at the margins of her analysis or operate both as causes and side effects of British industrialization—for instance the French Revolution and Napoleonic Wars, or technical input such as the introduction of the Jacquart loom.

However, this book never claims to encompass a comprehensive analysis and succeeds fully in giving a clear, complex, and nuanced introduction to the history of industrialization, which is contextualized in an imperial context and portrayed as global process. The text offers a presentation particularly suitable for undergraduates, providing all the expected landmarks, with short readings listed for each chapter (in addition to the final bibliography). But for the research field in general, it also brings about a short and useful synthesis of the historiographical debates on industrialization, a concept itself analyzed, subject to ideological contestation, and the object of numerous appropriations and investigations. Far from being final, this global approach, embedding a relevant view of inventive practices and technical processes, could provide an incentive to look further within different production sectors or geographical areas. Technology in the Industrial Revolution lays indeed the groundwork for resituating “machineries” as a socio-material ensemble (an arrangement of material, imaginary, social, economic, political, and environmental dimen-
sions) and offers a prologue to addressing the history of industrialization in a way that is more comparative and more sensitive to its temporalities and contingencies.

Notes


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