Dompter Prométhée: Technologies et socialismes à l'âge romantique. 1820–1870.

Edited by François Jarrige. Besançon: Presses Universitaires de Franche-Comté, 2016. Pp. 286. €15.

JANUARY 2018 VOL. 59 "Taming Prometheus" would be one way to translate this volume's title, but it would fall short of representing its complex orientation, which includes notions of mastering, governing, regulating, engineering, and reinventing technology. This book should be of special interest to historians of technology, because its contextualist approach shows how early socialists included technology as central to their agenda of social reflection and designing a more human-centered future through technological artifacts and practices. France is the geographic focus, with the exception of a chapter on Robert Owen's involvement in the New Lanark mills in Scotland starting in 1800, and a chapter on influences on Marx, especially Andrew Ure, Charles Babbage, and Pierre-Joseph Proudhon. *Dompter Prométhée* grew out of a colloquium at the University of Bourgogne (Dijon) in June 2013 within the framework of project ANR (Agence Nationale de la Recherche) "Utopies 19."

The authors are historians of socialism, science/technology, or their intersections. François Jarrige's forty-seven-page essay introduces the fundamental tensions and ambiguities of early socialist critiques of industry and technology as both cause and remedy of human misfortunes. The neologisms "technology" and "socialism" both appeared between the end of the eighteenth and middle of the nineteenth centuries, and their borders long remained porous and uncertain (p. 21). The authors explore these borders, showing how different socialist engineers, technicians, and workers developed ideas, tools, and artifacts, introduced inventions, experimented with new technical processes, and stimulated debates about technologies within the context of social, political, and economic transformations (p. 15). In the postface, Liliane Hilaire-Pérez borrows as title Gilbert Simondon's phrase "saving the technical object" to reflect on intersections between the socialist paths analyzed by the authors and Simondon's more recent theory of progress as a slowdown and more efficient energy usage (p. 263). Simondon (1924-89), a French philosopher of technology, focused on how to reconcile culture, technology, and new forms of alienation in opposition to simplistic, technophobic, humanistic stances.

The title's reference to technologies and socialisms of the "romantic age" invites readers to explore the ambiguities and uncertainties of a time during which the increasingly mechanized, quantified, and utilitarian world of industry has been typically represented in opposition to a beautiful and impractical world of art and literature. The authors have done an admirable job of undermining such a simplistic view. Indeed, socialists of-

ten represented machines as potential generators of a more progressive future, as illustrated by Ophélie Siméon's analysis of Robert Owen's New Lanark; John Tresch's discussion of the divine motors of the Saint-Simonians; Joost Mertens's account of Étienne Cabet's technocratic ideals in his utopian vision; Ludovic Frobert's study of Constantin Pecqueur and steam technology; Georges Ribeill's analysis of socialist approaches to the railroad; François Jarrige's review of the failed pianotype in the typographical world; Thomas Bouchet's consideration of Charles Fourier, phalansterians, and communications systems; Bernard Desmars's inventory of phalansterian inventors; and Keith Tribe's critical analysis of socialist writings on technology that influenced Marx.

In many ways, this volume represents a model of integration of technology and culture that editors and publishers of multi-author works should consider. A minor shortcoming is that the central period treated is the July Monarchy (1830-48). There is less than balanced coverage over the title's timeframe of 1820-70, with several exceptions, such as Robert Owen's work at New Lanark from 1800-25. Non-francophone readers, especially those less familiar with French history and culture, would have benefited from more biographical and historical context. The volume's emphasis on ambiguities, tensions, and uncertainties is definitely a strength, but could have been developed more systematically across chapters in regard to the roles of workers and artisans. Nevertheless, the book achieves its goals at a very high level. It is recommended for all those interested in the history of interactions of social thought, cultural constructions, and technology, and deserves a place in libraries that serve graduate students in related areas. The book is an admirable accomplishment by its editor, authors, and the Presses Universitaires de Franche-Comté.

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Innocent Experiments: Childhood and the Culture of Popular Science in the United States.

By Rebecca Onion. Chapel Hill: University of North Carolina Press, 2016. Pp. 240. \$29.95.

Many of us (at least those of a certain age) can recall a variety of childhood experiences with science. There were the chemistry sets that showed us how to produce dramatic color changes in a test tube, the science fairs where we could watch a simulated volcano fizz and bubble, and field trips to science museums where we encountered awe-inspiring displays that excited our interest in the natural world. These are the activities Rebecca Onion chronicles in her book, *Innocent Experiments: Childhood and the*