

An Alternative History of Bicycles and Motorcycles: Two-Wheeled Transportation and Material Culture. Eds. Steven E. Alford and Suzanne Ferriss. Lexington Books, 2016. 187 pp. \$80.00 cloth.

An Alternative History of Bicycles and Motorcycles is intended for multiple audiences. The first are readers interested in the history of bicycles and motorcycles, who may already be familiar with professors Alford and Ferriss through their involvement with the *International Journal of Motorcycle Studies*. This group will enjoy the work, particularly its thematic approach. A less obvious audience is scholars interested in material culture and the intersections of culture and science. These readers will find much to appreciate, regardless of their interest in bicycles and motorcycles, because by presenting a thematic history that counters the “determinist” linear narrative of *cycles*, the authors argue that “it could have been otherwise,” emphasizing the extent to which cultural, social, economic, and political factors directly shapes the development of inventions (3). In doing so, the authors provide cultural scholars with a well-documented example of how an invention develops within a cultural context, and for this reason, the book has utility beyond its titular fields.

More specifically, Alford and Ferriss write against the notion that *cycles* were a linear invention, and they dismiss an “A to B to C” narrative of development. Arguing that the current forms of bicycles and motorcycles were not inevitable, they stress that developments were shaped by social, political, and economic factors. Political and economic changes brought about new materials and industrial demands, while social change and new resources created opportunities and cultural shifts that fostered invention. In return, the invention itself shaped cultural norms, producing an endless loop in which invention is shaping, and shaped by, society. Within this system, “the bicycle and the motorcycle find themselves always already *within* a culture, with its consequent arrangement of class, economics, politics, aesthetics, and gender,” all existing within “the context of the culture in which it appears” (7). To further emphasize the social development of *cycles*, the authors argue that these vehicles were not created by geniuses of an age, but were slowly developed by generations of “tinkerers,” who worked within a social context

(2). Ultimately, the work stresses that social factors, combined with material needs and cultural values, shape the unpredictable development of invention. The invention then shapes society, restarting the process.

The work is divided into three parts, all of which reflect a “wheel” metaphor. Part I represents the outer tire of social and physical forces that shape invention. These forces include biology, law, economics, politics, history, psychology, culture, and colonialism. Part II, the spokes of the wheel, represents the materials needed for invention, specifically steel, textile, rubber, and roads. Part III, the center of the wheel, are riders and machines, which produce a cultural force that reshapes the social context within which they developed (8-9).

Looking more closely, Part I, “Machines,” examines the nonlinear history and development of two-wheeled vehicles. Arguing that current cycle forms were not inevitable, the section provides instances in which a logical design was rejected for cultural and social reasons, thus allowing another variant to develop. Consumer culture, class, gender, and social expectation influenced design as much as engineering concerns, showing that “perceptions and cultural biases have as much to do with design as the technical solution” (37). By providing specific and interesting examples of how invention is culturally influence and nonlinear, this section will be of interest to historians of culture and science in need of assigned course readings. Part II, “Materials,” examines the “socio-cultural and economic context” of production and material use, specifically relating to roads, rubber, steal, and textiles (49). Perhaps the most ambitious section of the work in terms of scope, it covers developments from Ancient Mesopotamia through Jack Kerouac. The section provides a general overview of the historical use of each material, with discussion of how they are entwined in wider historical issues of industry, transportation, commerce, conflict, imperialism, and global politics. The purpose of this section is not to provide a comprehensive history of each resource, but rather to emphasize the interconnectedness of material use with social and cultural trends. The authors demonstrate that these interconnections are vast, and sometime nebulous.

Part III, “Machines and Riders,” examines the political, biological, psychological, and metaphysical aspects of cycling culture, exploring how bicycle and motorcycle culture shape society and material use.

The social and material conditions that created cycling culture, they argue, are in turn shaped by that culture. Much to their credit, the authors provide nuance to their arguments by acknowledging the influence of broad social factors. When addressing the often studied relationship between women and bicycles, the authors caution: “The ‘progress’ for women brought about by the bicycle, laudable as it is in its own terms, must be understood in the context of ongoing depredations to worker health, safety, and livelihood as manufacturers competed to produce the most profitable machines at the lowest price. While this does not diminish the benefits of the bicycle to women, as with all devices, we much understand the benefits within the context of the social and economic conditions that produces such a device” (135). The bicycle, though a source of change, was also a product of society.

This work has many characteristics to be complimented. Its use of images is excellent, providing interesting visuals, showing how the bicycle and motorcycle could have taken a multitude of competing forms. The “terminology” section is helpful to those unfamiliar with the field, and the endnotes will point readers to additional sources. Most importantly, this work will please multiple audiences. Readers interested in the topic itself will find the thematic approach of the work an interesting departure from typical chronological overviews. Scholars of material culture will find this an excellent example of how culture and society shape—and are subsequently shaped—by invention. This concrete and approachable example of invention as a nonlinear development would serve as a useful tool for instructors looking for an interesting class reading to assign.

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Disability and Popular Culture: Focusing Passion, Creating Community, and Expressing Defiance. Ed. Katie Ellis. Ashgate, 2015. 212 pp. \$89.45 cloth.

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