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Aluminum Dreams

Mimi Sheller, MIT Press, 2014

by Mats Ingulstad

Aluminum is the stuff of dreams. Light, strong and durable, it can be used for almost anything, from four-engine bombing aircraft and explosives, to electric cables, luxury cars and lawn chairs. Its versatility gives free reign to the imagination, allowing architects to assemble previously unthinkable buildings, while providing conspiracy theorists with protective headgear that can foil attempts by government agents to manipulate our brain waves. Since the discovery of industrial processes for mass production of aluminum in the late 19th century, what was once an expensive novelty metal has become one of the most widely used industrial materials. The spectacular growth of aluminum consumption led the philosopher of technology Lewis Mumford to identify it as the quintessentially modern material, enabling compactness and lightness in construction as well as the cheap transmission of electricity over long distances. A other important feature of what Mumford referred to as the modern "neotechnic" epoch, was that the material basis of an advanced society could no longer be confined within national or even regional borders, but required mobilization of resources on a "planetary" scale (Mumford 2010, 230-233). This particularly applies to aluminum, as the production of the pure metal from bauxite ore requires relatively advanced technology to be used in successive stages of refinement as well as vast amounts of cheap electric power. Rarely are all of the key ingredients found in one location, and so for much of its short history the aluminum industry has been based on global value chains.

The association of aluminum with modernity, and the configuration of the global production networks necessary to sustain the industry, provides the two main thrusts of *Aluminum Dreams*. Mimi Sheller´s curiosity was initially sparked by the fact that Alcoa, the dominant US aluminum producer since the dawn of the industry, started organizing cruises in the bauxite-producing areas of the Caribbean in the late 1940s. This led to a decade of encounters between the representatives of a booming US in the thrall of modern capitalism, where aluminum was smelted, sold and advertised as the metal of tomorrow, with the "slow," exotic backwardness of the areas in which the bauxite was wrested from the soil. Such encounters hold a particular significance for Sheller, who is an active propagator of "mobility studies." This approach seeks to provide a new perspective on globalization with a view to both its facilitators and inhibitors. It also includes a substantial normative component, "mobility justice," which roughly correlates to a plea for ecological and social sustainability across time and space. The "mobility paradigm" purportedly integrates spatial and social approaches by incorporating elements from Science and Technology Studies, as well as a whole host of post-modern, new media and critical theories (Adey et al. 2014, 52).

Thus fortified by theory, Sheller embarks on a quest to understand how the aluminum industry "inadvertently left us bound up in metallic threads that fused with our bodies, infiltrated our buildings, altered our way of life, and even made their silent way into our foods and medicines" (4). She moves chronologically and thematically through the history of invention and innovation in the industry (chapter 2), to the creation of new markets through military campaigns (chapter 3) and advertising campaigns (chapters 4-5). In accordance with the "mobility paradigm" Sheller relies heavily on the juxtaposition between the sluggish underdevelopment of the Global South, which provided the raw material, and the hasty modernity of the Global North, in which the end-product was consumed and the profits accrued (chapter 6). By showing the uneven development patterns reflected in the different stages of the value chain, Sheller's "aluminum dreams" are revealed to be both the hopes for - and projections of - a prosperous and utopian modernity, as well as the history of how these reveries led to pollution, social dislocation and environmental degradation. Sheller not only seeks to elucidate these problems in the Caribbean, India and the other familiar haunts of the Global South (chapter 7), but also on the frozen fringes of the industrialized North, by camping with protestors fighting against aluminum smelters in Iceland and Greenland (chapter 8). The book thereby draws attention to the negative externalities of aluminum production, conveniently forgotten whenever it is portrayed as a "green" metal, the material of choice for sustainable art and sensible sensationalist architecture (chapter 9).

The transnational approach to the history of commodities has grown in popularity over the last decade or so, in large part because it offers a neat way to trace the movements of a single commodity from its point of origin through a lifecycle of movements that may span the entire globe. The flow of commodities transcends boundaries, whether geographical, political, conceptual or methodological, giving the analyst access to an interdisciplinary array of tools to combine cultural, environmental, economic and business perspectives. Sheller aspires to write a truly transnational history, "in contrast to all of the existing mainstream histories of modern materials" (10). She frequently criticizes historian of science Eric Schatzberg, best known for his argument that it was the mystique of metallic modernity that led to the adoption of aluminum rather than wood as the technology of choice for aircraft in the era spanning the two world wars (Schatzberg 1999). According to Sheller, Schatzberg operates with a too narrow understanding of the culture and ideology of aluminum, leading him to ignore the larger economic, political, military and cultural discourses, as well as their social ordering both nationally and internationally. Sheller sets a high bar, but *Aluminum Dreams* falls short. Rather than the

promised transnational economic and cultural history of aluminum (247), the book too frequently reads like an Alcoa-centric history of US conceptions of modernity, personified by the eccentric futurists R. Buckminster Fuller and Arthur Radebaugh. A glance at the notes strengthens these suspicions, she has only consulted the archives of Alcoa, even though the archives of other US firms like Reynolds and Kaiser are easily accessible, and the Institut pour l´histoire de l´aluminium in Paris holds a treasure trove of documents and testimonies that could have provided her readers with a broader perspective. As readers of this journal are probably aware, the secondary literature is full of other examples, like Norsk Hydro, that could have been used to make many of the same arguments, whether about the importance of state support, the global nature of the value chains, or hostility against western firms in the Global South.

Aluminum Dreams occasionally confounds the reviewer. Partly it has to do with the organization of the material; it is rather puzzling to find the chapter on warfare in the section of the book labeled "The Bright Side." But it is also a matter of the prose. Sheller waxes lyrical throughout the book in a manner that inadvertently underlines the power of the advertisements and the discourse of modernity she is studying. Alcoa dubbed the first globules of aluminum produced by Charles Martin Hall the "seeds of speed." Sheller is not to be outdone, describing how "veins of aluminum quietly course through our culture, keeping the kinetic elite moving while sucking up eons of electrical power from not-so-modern-places." (9). Even a humble aluminum espresso can is the subject of apotheosis, described as a "perfect vessel" for "speeding superheated steam into a perfect black elixir of energy" (122). While the appreciation of coffee and prose are both matters of personal taste, Sheller´s interjections of first-person philosophizing can only be described as banal: "as I rest my arms on the coldly seductive brushed aluminum of my MacBook Pro, its sharp chiseled edge bites into my wrists, troubling me that there must be some sharper truths upholding the easy lightness of this wondrous technology" (237).

In the final analysis, *Aluminum Dreams* is an ambitious undertaking that does not fulfill its promise. Aluminum is a splendid choice for a transnational commodity history, but as Lewis Mumford could have remarked, such a history would have needed a broader, more "planetary" basis for analysis. The attempt to combine a critical political economy perspective with an examination of the aluminum esthetics of modernity, interspersed with field reports from Icelandic protest camps, would also have required much more stringent organization and selection of material. Such are the challenges of interdisciplinary approaches, whether they are conceived as transnational commodity histories or "mobility studies." This book will provide an interesting read for those wishing to join the ranks of the aluminati, but for those already initiated, it provides few new insights beyond the sheer number of synonyms for "lustrous".

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