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Jonathan Rees opens *Before the Refrigerator: How We Used to Get Ice* with an engaging question: what would a museum dedicated to ice look like? It’s a tricky question. The ice industry was inherently ephemeral (its product melts, of course), while the products ice preserved were consumed or spoiled. Since such a museum could not present ice itself, Rees suggests three technologies to tell the history of the ice industry and ice consumption: an ice auger, the iron rod ice harvesters used to measure the thickness of natural ice; an ice coupon book for purchasing ice from delivery drivers; and the first successful artificial ice machine (despite the fact that this technology was eclipsed within three decades by ice-making electric household refrigerators). The following chapters efficiently explore the histories that link these technologies. After surveying the state of the natural ice industry and the rise of the artificial ice industry in the nineteenth century, Rees details the invention of mechanical refrigeration in the 1880s through the ice industry’s effective demise in 1930 before gesturing to its complete eradication by 1960.

Befitting an entry in Johns Hopkins University Press’s How Things Worked series, Rees organizes *Before the Refrigerator*’s five chapters around “how” questions. The first explains the natural ice industry and how harvesters turned frozen ponds into a consumer product. Chapter 2 explains how Americans learned to manufacture ice and how they built effective, safe mechanical refrigerators. The third chapter charts how ice moved from its point of production to sites of consumption, additionally accounting for how ice was used in transit to preserve goods. Chapter 4 explains how people used ice, commercially and at home, and how it shaped American diets. The final chapter details how household refrigeration gradually displaced the nation’s ice infrastructure in the twentieth century.

A central argument of *Before the Refrigerator* is that the evolution of the cold chain, what might be considered a classic history of technology,
transformed not just American industry but American culture and lifestyles as well. The shift from natural to artificial ice, and then from ice to refrigeration, reconfigured the nation’s cold chains, the “long strings of various technologies of varying complexities needed to get ice from the point of production to the point of its consumption” (p. 94). Rees explains not only change over time of technologies but also the vast social and economic impacts of such changes. The availability of safe, affordable, and efficient household refrigerators shortened the cold chain to practically nothing, for the distance “from one part of the kitchen to another is pretty much the shortest cold chain imaginable.... Here for the first time was ice on demand, just as much as you needed and guaranteed to be as safe” (p. 77).

Ice’s increased availability in the late nineteenth and early twentieth centuries, Rees argues, made it easier for industries of all sorts, from fisheries to restaurants, to experiment with new uses. It also made ice, once rare in summer, common in all seasons and available to all social classes. Americans enthusiastically embraced ice and its attendant commodities, like iced cocktails in bars and ice cream: four thousand ice cream peddlers traversed the streets of New York City alone in 1901 (p. 69). The shortened cold chain changed Americans’ diets, as well as the perception of how both meat and fish were supposed to taste, since cold storage meant refrigerated meat could be transported without being pickled or canned, or fish could be preserved without salting or drying. Ice also lessened the seasonality of diets, introducing more fresh fruits and green vegetables to winter diets in climates unable to grow such produce.

*Before the Refrigerator* effectively draws on a range of archival materials, from industry publications to newspaper articles and advertisements to governmental reports. Excellent illustrations offer further archival details. The photograph of men posed behind a transparent block of manufactured ice to advertise the ice’s clarity (and thus its assumed purity) is fascinating. So too is the map of zones where natural ice and manufactured ice dominated in 1905; the division between the two industries largely adheres to a climatological divide, along the average mean early January temperature of 32°F. The map shows that southern climates that never froze in winter were faster to embrace the technology of ice manufacturing.

*Before the Refrigerator* is a dynamic history. It will come of little surprise that the most engaging sections of *Before the Refrigerator* detail “how things worked.” Rees crafts lively vignettes detailing how laborers harvested ice from frozen ponds; how cold storage warehouses were designed; how ice arrived and was delivered in cities, including the fifteen thousand ice wagons that traversed New York City and Brooklyn daily in the summer of 1895; and how early iceboxes were designed and used. Rees excels at clear descriptions of complex processes, such as the compression refrigeration cycle. Easy to read and full of enlivening facts, this book could fit well in a survey course unit on the turn-of-the-century United States, as it draws together the disparate stories of Chicago meat-packing, the large-scale agribusiness and lettuce fields of California’s Salinas Valley, and the first modern electric household refrigerator, General Electric’s 1927 Monitor Top. Rees successfully uses the history of ice and refrigeration technologies to offer a fresh perspective on the story of modernization of American life at the turn of the twentieth century.
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