

**The Industrial Transformation of Subarctic Canada.** By Liza Piper. Vancouver: University of British Columbia Press, 2010. xxv + 403 pp. Illustrations, maps, figures, tables, notes, bibliography, and index. Cloth \$85.00, paper \$32.95.

This ambitious book surveys a vast region during the first several decades of the twentieth century: the “land/water” of the Canadian northwest stretching from Lake Winnipeg in a curve to Great Bear Lake and the MacKenzie Valley. It was defined, Piper shows, not only by shared natural features—lakes, muskeg, permafrost, and bush—but also by the enduring perception of a place of “natural resources” to be accessed, managed, and extracted as efficiently as possible. Piper argues that while the industries of the 1920s moderated their activities in response to the environment, the later development of whitefish fisheries and radium and uranium mining from the 1940s to the 1960s unmasked the process of industrial transformation already in place.

The study has three sections: the physical environment and the early industrialization of the 1920s; the intensified development of two principal industries: mining and whitefish commercial fishery up to about 1960; and the networks and legacies of energy and waste. The story of transportation that weaves in and out of the book’s chapters is an exceptional illustration of one of her general arguments about the region: it was a network of nodes rather than a continuous territory with the lakes themselves as the epitome of and rationale for this definition. In this region, unlike both more southerly regions and corresponding northern ones in Siberia or Scandinavia, transportation remained a blend of alternatives (rail, air, river, ice road, highway routes) rather than showing a clear sequence of development. In a case study of Great Slave Lake, Piper shows that transformation of fishing from 1945 to 1950 provides a compressed version of the twentieth-century pattern of changes in techniques and capital, concepts of productivity and tensions between local residents (Native and white), government, and industry across the region. This is a familiar but still compelling account of the intersections between economic practices, political policies, local communities, and natural environment. The study of radium and uranium mining, however, leads Piper into a sustained and original discussion of different intersections: the legal, geological, and cultural conceptions of underground nature. The final chapters on fuel and waste examine the counterpart to resource extraction—the enormous input of fuel and supplies into the region. For Piper, this analysis of the energy required to split rock or haul people and goods epitomizes how the region was integrated into an international economy controlled from a distance. Similarly, she argues, we can examine the actual distribution of the waste products of industrialization, from mine tailings to fish guts, to see how the new industrial order “disassembled” communities, ecosystems, and landscapes.

Perhaps it is the scale and complexity of this account that leaves the reader with a curiously impersonal history. It is not that the sources are dry: Piper’s research is impressively wide-ranging, and she finds plenty of frank voices in

mining company and fisheries science reports. Nor is the natural environment so static as to resist a narrative of character and agency. Piper conveys well the often violent dynamics of the seasons, the variability of lake ecosystems, and the implications of anthropomorphic geology with its veins and bodies of ore. Nevertheless, this account gives us a region that humans managed rather than experienced and a detached rather than an intimate sense of place.

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**Sensing Changes: Technologies, Environments, and the Everyday, 1953–2003.** By Joy Parr. Vancouver: University of British Columbia Press, 2009. xxviii + 270 pp. Illustrations, maps, notes, bibliography, and index. Cloth \$85.00, paper \$32.95.

What happens when dramatic anthropogenic environmental transformations alter people's sense of a place? How do they respond when their senses cannot warn them of dangers in their environments? These are questions explored in *Sensing Changes*. Well situated in the international literature on sensory history and accompanied by web resources (<http://megaprojects.uwo.ca>) designed not only to provide background material, but also to supplement and amplify the book, *Sensing Changes* is a pioneering book in Canadian environmental history and a valuable contribution to the international literature in the field, although its analysis is somewhat isolated from the more general social history on postwar North America.

Parr's theoretical introduction enhances the book's unity and coherence, although the six case studies can be profitably read separately. The case studies are intended to "capture how the arrival and persistence of . . . megaprojects remade modes of dwelling and earning a living, the discernment of hazards, and the experience of pleasures at home and at work in time and place" (p. 2). They fit into two categories. Three chapters examine megaprojects that transformed the physical landscape (the formation of the Gagetown NATO base in New Brunswick; the submersion of Iroquois, Ontario by the construction of the St. Lawrence Seaway; and the damming of the Arrow Lakes in British Columbia). The other three examine how industrial workers and residents dealt with hazards that cannot be detected by the senses or were at least insensible when present in dangerous concentrations (radioactivity and hydrogen sulfide emissions at and near the Bruce Nuclear Power Plant and its neighboring heavy water plant in Ontario and *E. coli* at Walkerton, Ontario). This last chapter examines what happens to a community when "good water" (as judged on the basis of taste and "softness") is poisoned by a microbe detectable only by scientific testing, leading to seven deaths and hundreds of cases of illness.