

historians — Stephan Thernstrom, Stuart Blumin, and Michael Katz — long ago left the frontier; today their contributions to urban history or “the new social history” as Thernstrom prefers to call his writing, are landmarks of modern social analysis.

Nor did the profession ignore Hays’s injunction to gather and preserve the hard data for modern social history. Note, for example, the Archives of Industrial Society at the University of Pittsburgh, the Philadelphia Social History Project directed by Theodore Hershberg, the Temple University Urban Archives, and the myriad of oral history projects operating across the nation. It is a pleasure to acknowledge this book of Hays’s essays as a testimony to both his positive influence as a teacher and his role as a highly successful proselyte of the “new social history.”

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Ores to Metals: The Rocky Mountain Smelting Industry. By JAMES E. FELL, JR. (Lincoln: University of Nebraska Press, 1979. Pp. xi, 341. Preface, map, illustrations, notes, bibliography, index. \$21.50.)

Many historians have written about the western mining frontier, but few have studied the subject of producing gold, silver, copper, and lead from different types of ore. James E. Fell, Jr., provides a detailed and comprehensive account of the Rocky Mountain smelting industry from its rise in the 1860s to its decline in the early twentieth century. Fell shows how businessmen combined technology from the smelting centers of Europe with capital from the financial centers of the east coast to create a large industry centered in Colorado. Perhaps the author’s major contribution is to explain the processes by which the smelting industry evolved from a large number of small, local enterprises in the 1860s to a few large, integrated corporations by the 1890s. Hard times after 1893 spurred fears of “excess” competition and, after several failed efforts at pools, led to the creation in 1899 of a giant holding company — the American Smelting and Refining Company, which soon controlled most of the industry. This evolutionary process in smelting, Fell clearly shows, fits well into general

patterns of business change in late nineteenth-century America.

Fell's book is largely a business history, and as such stands as a very good case study based on extensive primary research. But he also contributes to the history of technology and economic development and to the history of Colorado and the Rocky Mountain Region. His book is well written; it keeps the reader attentive by significant focus on the businessmen in the industry, including Nathaniel P. Hill, Edward Nash, and the Rockefeller and Guggenheim families.

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Pittsburgh and Lake Erie Railroad. By HAROLD H. McLEAN. (San Marino, California: Golden West Books, 1980. Pp. 236. Foreword, epilogue, maps, charts, bibliography, index. \$29.95.)

At the beginning of the railroad age, the Pennsylvania legislature contrived to give Philadelphia's Pennsylvania Railroad a monopoly on the traffic from the western part of the state. Pittsburgh chafed under the conspiracy, but by the time the Baltimore and Ohio was allowed to enter the city, most industries were already located on the PRR, and so the monopoly remained effectively intact. In the 1870s, Pittsburgh interests, led by William McCreery, built the Pittsburgh and Lake Erie Railroad north along the Ohio and Beaver rivers to Youngstown, Ohio, and connections with the Erie and New York Central lines. The Vanderbilts eventually outmaneuvered their rivals, and the fledgling P&LE became their New York Central's semi-independent entrance into Pittsburgh.

But the P&LE lay astride one of the nation's most intensely industrialized corridors. There, it came to do what railroads could do best in the twentieth century — haul heavy tonnages of bulk commodities, particularly coal and ore. The P&LE regularly earned more and outperformed its parent New York Central, and was, by any measure, one of America's great railroads in its own right. Its mainline was four tracks wide and laid with heavy rail. Its physical plant and motive power were built for heavy duty and high capacity. The P&LE always pushed at the frontiers of railroad technology. Until the end of the 1950s, high-speed luxury passenger trains, with sleepers and