Ferdinand Hayden: A Young Scientist in the Great West, 1853–1855

Michael D. Severs
and engraver Henry Schenck Tanner produced an atlas placing the Oregon Country within the United States while it was still jointly occupied with Great Britain. Artist George Catlin depicted Indians he was convinced were doomed to extinction. Novelist James Fenimore Cooper portrayed the western landscape in a more romantic fashion, while powerful Missouri Senator Thomas Hart Benton supported aggressive westward expansion with multiple objectives: sovereignty, commerce, and slavery. Each in their diverse way “successfully convinced thousands of Americans that the West was safe, that the land was fertile, and that opportunities abounded” (253).

William Clark’s historical legacy, his map and journals, remains important. For Kastor, the power of this visual record ingrained the West in the American imagination. Although a somewhat difficult read for a general audience that followed Lewis and Clark through Stephen Ambrose’s Undaunted Courage, this is an outstanding scholarly work, based on a thorough reading of a wide variety of primary sources and all the appropriate secondary sources. The narrative is enhanced by numerous illustrations; most valuable are 25 contemporary maps. It deserves its place in the important Lamar Series in Western History.


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Ferdinand Hayden is best remembered for his geologic survey of Yellowstone National Park or as director of the U.S. Geological Survey or maybe even for his position as chief medical officer in Phil Sheridan’s army during the Civil War. However, this prestigious career, like most, had its humble and insecure beginnings. Fritiof Fryxell explored those beginnings — the early events and relationships that shaped Hayden’s career — in this monograph on Hayden, which Fryxell originally intended to be the first of many volumes. The posthumously completed monograph explored the ambitions, choices, and direction of Hayden’s early career through extensive quotations of his own letters and writings. Perhaps it is only a quibble, but readers would have benefited from more of Fryxell’s own insights in addition to his extensive quoting from Hayden’s many writings.
Fryxell’s monograph achieved more than just a snapshot of Hayden’s early career. It also presented a much larger picture of American science in the 1850s. Its narrative and analysis of the relationships and ambitions of naturalists in the Midwest was perhaps its most valuable contribution to the history of American science. Hayden’s writings, and Fryxell’s brief analysis, brilliantly addressed the processes and challenges that these naturalists faced throughout the Midwest. The monograph is an excellent source for historians of western and midwestern history because it exemplifies the challenges and ambitions of these early naturalists as they attempted to impose their professional ambitions on the unstudied regions of places like Iowa, South Dakota, and Missouri.


Well-written accounts of exploration generally make for compelling reading, and Steamboats West is no exception. Lawrence H. Larsen and Barbara J. Cottrell have written a narrative history of an expedition by steamboat to the country bordering the Missouri River undertaken by the American Fur Company in 1859. At the core of their narrative are extended, well-chosen entries from the journals of Charles Henry Weber, one of the passengers on the expedition, and Elias Marsh, its medical officer. The Missouri River’s economic and political significance in 1859 extended about 1,000 miles above its junction with the Mississippi. A major reason for the American Fur Company’s expedition that year was to move that point upriver and to demonstrate the possibilities that lay along the river’s upper reaches.

In a 44-page introduction, Larsen and Cottrell describe the topography of the land along the Missouri River, steamboat navigation on the river, and the American Fur Company’s interests along the Missouri and how it prepared for its ambitious expedition. The introduction concludes with a page-long explanation of how “from start to finish [the book’s narrative] unfolds chronologically, with the journal entries [of Weber and Marsh] interspersed throughout the text” (44). Excerpts