America As Second Creation: Technology and Narratives of New Beginnings. *By David E. Nye*. Cambridge: MIT Press, 2003. x + 371 pp. Index, notes, bibliography, illustrations, photographs. Cloth, $29.95. ISBN: 0-262-14081-0.

Reviewed by Scott Gabriel Knowles

In his 1856 poem "Song of the Broad-Axe," Walt Whitman tells the story of Manifest Destiny, the term often used at the time to justify expansion into the West: "The axe leaps!/The solid forest gives fluid utterances/ . . . The shapes arise!" Whitman translates the financially risky, politically contentious, and frequently bloody migration of white settlers westward into an epic tale, a powerful creation myth with technology at its center, the fulfillment of a divinely inspired and democratic mission. Generations of Whitman's countrymen before and after him rehearsed the story of an incipient America made complete by the axe and the canal, the water mill and the iron horse, the irrigation dam. Historian David E. Nye, in his new characteristically fascinating and wide-ranging book, *America As Second Creation: Technology and Narratives of New Beginnings*, scrutinizes closely the various stanzas of this American epic, and also presents the arguments of its many vocal detractors. "The narratives," Nye argues, "naturalized the technological transformation of the United States so that it seemed an inevitable and harmonious process leading to a second creation that was implicit in the structure of the world" (p. 6).

Nye presents four major shifts in post-Revolutionary American thought that together cleared the way for the cultural success of "second-creation" narratives: the adoption of the abstract grid as a method of land division, the emergence of free-market ideology, a rejection of the fear of scarcity for a faith in natural abundance, and the dismissal of a mysterious universe in favor of a universe of reliable, quantifiable forces (p. 21). Woven together, these ideas composed the substance of Manifest Destiny, presenting Americans as simultaneously logical, individualistic, blessed, and tenacious. On the whole, such stories highlighted a seemingly inborn American genius for technological innovation at just the right place, and at just the right time.

Take, for example, the log-cabin homestead of the lone frontiersman. The image is iconic. Even today, the log cabin connotes the individualism and authenticity of a

young Abe Lincoln reading by firelight. Writer Zachariah Allen described this archetypal American in 1832 as a man with "a keen axe in his hand . . . many miles distant from any human habitation . . . he applies his axe with persevering strokes, and . . . [f]or the first time, perhaps, since the creation of the world the light of day shines with unbroken ray upon that spot of earth" (p. 57) Similarly, the founding of the nation's first industrial cities was frequently cited as evidence of the American penchant for improving on God's original handiwork. Lowell, Rochester, Minneapolis, and hundreds of other sites in industrializing America naturally took advantage of falling water and local river systems both to manufacture needed products and to move them to market. As the national railroad network grows, we hear the voice of Horace Greeley explain that "in the West the railroad itself builds cities. Pushing out boldly into the wilderness . . . villages, towns, and cities spring into existence . . ." (p. 157). A generation later, well after Frederick Jackson Turner's declaration that the frontier era of American history had closed, the narrative surfaces again, this time to explain the promise and necessity of dry-land irrigation in the West. Franklin D. Roosevelt reworks the story for a modern audience at the opening of the Hoover Dam in 1935: "Ten years ago the place where we are gathered was an unpeopled, forbidding desert. . . . [T]he transformation wrought here in these years is a twentieth-century marvel" (p. 245).

Such stories, while proving highly effective over the generations for inspiring migration, investment, and national pride, tended to downplay the critical role of government intervention, the aggregate effects of environmental degradation, violence, and dispossession of land, and outright failure on the frontier. Returning to our lonely homesteader, Nye tells us that Americans rarely lived by their wits in solitary outposts. The land that the frontiersman transformed was not wild, unpopulated, and desolate. It was the (recently lost) land of the Native American, won through sale and/or conquest, surveyed, and sold in lots of regular size and shape. The cabin and farm were not independent, but were sites of agricultural production tied to a national market and transportation infrastructure. Mills and canals were built in good natural locations that quickly became polluted and were often constructed by low-paid immigrant laborers who did not generally share in the wealth and class mobility generated through industrial second creation. Railroads opened the West for the good of the nation, but they did so

with the aid of massive government subsidies, giving rise to monopolistic corporations, endless land swindles and litigation, political corruption, and the last stage of the ongoing decline of Native-American sovereignty. Finally, "finding" water so that the American desert could bloom like a new Eden proved expensive and environmentally disastrous.

Nye allows second-creation opponents to speak for themselves, and there are many. From Henry David Thoreau to John Muir and Teddy Roosevelt, Henry Adams to Edward Hopper, we find critics intoning the death song of second creation, a process that destroys instead of creates, depletes rather than replenishes, threatens democracy and corrodes individualism. None of these "counternarratives" or criticisms seems more timely or more effective than the simple chastisement by Ralph Waldo Emerson, who captures the folly of the entire American mania for land transformation in 1847 with his observation that, "an American in this ardent climate gets up early some morning and buys a river" (p. 105). Business historians will find little new here in regard to the history of American market creation or technological innovation—Nye's sources are well known and his cases are well studied. However, the book is a must-read for historians looking to gain insight into the psychological and cultural dimensions of Manifest Destiny, for readers anxious to understand why people believe(d) *so* strongly that the nature of the American is to improve on nature. Narratives of second creation still retain a remarkable cultural power. We see this whenever politicians argue over the future of environmental regulation, suburbanization, and space exploration. Americans still head west looking for that fabled fresh start, and it is even possible to reserve your lot today for future development on the moon.

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