The Legacy of John Wesley Powell

page 6 By Richard W. Franke

This is the latest installment in our Signs of Sustainability series, organized by Sustainable Tompkins. Visit them online at www.sustainabletompkins.org.

John Wesley Powell (1834-1902) is famous for leading the first and second known boat trips through the Grand Canyon. In 1869 he led a group of nine men through or alongside some of the Colorado River's most dangerous rapids. In 1871-72 he led a bigger expedition that brought back photographs, an accurate map and descriptive accounts. In 1874 he published a detailed account of his trips down the river.

Before his famous Grand Canyon passage, Powell had been a professor of geology, an avid traveler and explorer, an abolitionist and an officer in the Union Army. He lost much of his right arm at the Battle of Shiloh in 1862. Ever curious about nature and natural science, while participating in the siege of Vicksburg in 1863, he is said to have studied layers of rock exposed by the Union trenches.

After his Grand Canyon triumph, Powell became the second director of the United States Geological Survey (USGS) in 1881. The survey was established by an act of Congress in 1879. He worked tirelessly to apply the most advanced European mapping methods to the American West. Simultaneously a director of ethnology at the Smithsonian, he supported research among Native Americans, leading to the first comprehensive study of their languages, later published as a part of "The Handbook of American Indian Languages." Like his intellectual mentor Lewis Henry Morgan (1818-81), Powell supported the rights of Native Americans to land and to the maintenance of their traditional cultures.

Powell's most direct connection with sustainability resulted from his 1878 "Report on the Arid Region of the United States," which concluded that the far West and Southwest had too little water resources to support eastern-style high-density populations. He proposed that the West be mapped into 150 irrigation districts conforming to natural drainage basins. At a national irrigation convention, Powell warned to a chorus of boos that "You are piling up a heritage of conflict and litigation over water rights, for there is not sufficient water to supply the land."

His work angered the railroad and real estate interests that supported government incentives to populate the region. They and other business interests forced Powell out of the USGS in 1894. Following a depression and a major drought in the 1890s, Congress passed the National Land Reclamation Act (NLRA) of 1902 (also called the Newlands Act), authorizing government funds for large-scale irrigation works to bring water to the parched land.

Powell's maps and his predictions were accurate. Ironically, Powell's former senior assistant, MIT graduate Frederick Newell, was appointed first director of the Reclamation Service. Newell and the agency began constructing large, high dams. In Wyoming, the Shoshone Dam of 1910 (renamed the Buffalo Bill Dam in 1946) and in Arizona, the Roosevelt Dam of 1911, opened thousands of acres to farming. As power transmission lines became feasible, electric power generation followed.

In an evaluation of the NLRA, Donald Worster wrote in his 1985 book "Rivers of Empire: Water,

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Aridity and the Growth of the American West" that by 1978, 45 million acres had been irrigated in 17 western states. But agribusiness and a business-controlled federal government bureaucracy had taken over the rights and use of water.

In 1998 the Colorado River reached the Gulf of California for the last time. With 30 million people siphoning off the water through more than 100 dams and thousands of miles of canals, the river now ends in a "cracked and desolate expanse of barren mudflats and abandoned boats—a 'dry river cemetery,'" according to filmmaker Peter McBride, who accompanied journalist Jonathan Waterman on a boat and walking trip down the river in 2008.

Had Powell's idea of watershed-based communities been implemented, democracy, local responsibility and water preservation could have been enhanced and environmental damage possibly averted.

This is the latest in a series of articles on the history of sustainability. Richard W. Franke is professor emeritus of anthropology at Montclair State University, a resident of Ecovillage at Ithaca and a board member of Sustainable Tompkins.

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