

## Powell's ideas on watersheds in the west

Excerpt from Worster, Donald. 1985. *Rivers of Empire: Water, Aridity and the Growth of the American West*. pg. 138

Powell's scheme was to divide the region into two or three hundred "hydrographic basins," or watershed units, and to organize settlement within those basins rather than by the prevailing township and county system. Nature in its drainage network had indicated the patterns of rational settlement, and the topographic maps expressed that logic. "I early recognized," Powell said in the hearings, "that ultimately these natural features would present conditions which would control the engineering problems of irrigation and which would ultimately control the institutional or legal problems." It was, in a sense, a strategy of ecological adaptation he was proposing. The watershed gives shape to the technology that conquers it, and the efficient functioning of that technology requires a society organized along watershed lines, so that the jurisdiction of laws and courts and community planning are coextensive with the resource base. An eminently scientific, modern approach, one Americans had never tried before – had never felt the need to try. In the West, Powell was saying, the scarcity of water imposes on us, if we are to make the most of the place, a new rationality. The old approach to settlement – buying land from an abstract gridiron of lots, a 640-acre square here, a 40-acre block there, and letting the narrow economics of an entrepreneur rather than the broad economics of resource maximization control development – must be replaced.

However, there is the question of what happens when people move in upstream of you... pg 141.

The natural district would be, Powell wrote, "a commonwealth within itself." The phrase suggests the democratic qualities of autonomy and self-determination, of decentralization of authority and power. Yet almost immediately he was forced to concede the need to resort to external decision-making. In the first place, there was the problem of adjudicating water claims up and down a river, across state lines and even between nations. The Rio Grande had all those complications. In the southern part of New Mexico, where irrigation had long been well established, farmers insisted they had priority of use over newcomers upstream. Owing to diversions in the San Luis Valley and the severe drought, there was not water at all in Rio Grande south of Albuquerque in the summer of 1889, when the Setwart entourage came through. "The sand was blowing across the channel of the river," Powell reminded the senators, "and instead of the space being covered by waves of water it was, when I saw it last, filled with sand dunes." South of the border in the Juarez neighborhood of Mexico, farmers cursed the gringos and demanded reparations from the United States government. There was, in other words, a complicated web of existing water claims that would make the district idea, with its proposed new hierarchy of precedence, very difficult to introduce into a watershed. ...It would soon break down if all the inhabitants along the river tired constantly to maximize their own or their districts' wealth.

Excerpt from: Worster, Donald. 2001. *A River Running West: The Life of John Wesley Powell*. pg.477.

Their most important innovation was to envision the West as a series of “hydrographic basins,” or watersheds. Every stream, regardless of its size, had a natural terrain that produced it, a set of slopes that collected falling water and concentrated it. The landscape had never been systematically analyzed in that way except by the old Powell Survey. The purpose now was to see the entire region as a mosaic of interconnected watersheds, as integrated units of water and land, not to deepen the geological understanding so much as to guide settlement. Each of those carefully mapped and measured watersheds furnished the natural boundaries for a series of “irrigation districts” into which settlers could come and work out their problems together.

The district or colony idea had long appealed to Powell. It came out of Mormon colonization in Utah and mining camp life in California. The latter state’s Wright Act, passed in 1887, which allowed such districts to form, own water in common, and sell bonds to finance canals and headgate, was a step in the right direction. But Powell saw that without scientific guidance the irrigation district was a hit-or-miss proposition, as homesteaders new to the West would be unsure how to draw the boundaries of their communities and derive the most efficient use of their most vital resource. Even in New Mexico, where the Hispanic community had been irrigating for a century, the full potential of watershed had never been realized.

Also see:

Stegner, Wallace. 1954. *Beyond the Hundredth Meridian: John Wesley Powell and the second opening of the West*. Penguin Books. ISBN 0140159940