

Rising Tide: The Great Mississippi Flood of 1927 and How it Changed America
by John M. Barry.
(New York: Simon & Schuster, 1997).

"To control the Mississippi -- not simply to find a *modus vivendi* with it, but to control it, to dictate to it, to make it conform -- is a mighty task. It requires more than confidence; it requires hubris." So begins John M. Barry in *Rising Tide*, a tale of the 1927 Mississippi flood and "how it changed America." Barry measures the flood's effects on political power, race relations, and the land itself. This history is at its best when it describes the personalities and theories that shaped flood control and relief efforts. It also does a good job of integrating natural disaster into political and social history. More typically, academic and popular historians tend to let natural disasters serve as unquestioned, exogenous agents of change.

There are really two stories here, one of the men who had tried to control the river since the early nineteenth century, and one of the men who responded when disaster struck the Mississippi Delta. The characters of the first story are the engineers who debated the "levees only" policy of flood control. Following the theories of the seventeenth-century Italian engineer Giovanni Domenico Guglielmini, some engineers believed that a system of levees would control flood waters not only by damming the banks but also by increasing the velocity of the river's flow and hence its tendency to scour its own bottom. In effect, the levees-only theory held that the river in flood could be made to dig its own channel. Barry describes bitter rivalries among engineers; some advocating a strict levees-only policy, while others call for creating a system of outlets to divert flood waters. In particular, the author describes a struggle among James Buchanan Eads, famed builder of bridges and Civil War gunboats, Andrew Atkinson Humphreys, the quintessential Army Corps engineer, and Charles Ellet, Jr., a brilliant civilian engineer, to dominate flood control policy. While Eads pursued a system of jetties to increase the speed of the current even at low water, Humphreys and Ellet competed to produce definitive recommendations on river policy.

Mathematically-inclined readers may find much to enjoy here as the author explains how a river flows -- and floods. We learn about declivity, sediment carrying capacity, and dynamic measures such as "second-feet," which describes both the volume and force of a flood. Barry does not share the hubris of nineteenth-century engineers who thought that they could know and therefore control the river. Although engineers could understand the Po, the Rhine, the Missouri, and even the upper Mississippi, the turbulent vicissitude of the Mississippi Delta remains unknowable.

The second story is that of the flood itself, the final futile efforts to contain it, and the relief effort that followed in its wake. The flood, in Barry's telling, undercut the power of local leaders, spurred black migration to the industrial north, and helped position Herbert Hoover to win the presidency. With their homes flooded, thousands moved into refugee camps on the only dry ground left -- the levees themselves. Things were not easy for anyone, but they were especially difficult for African Americans

who were held in refugee camps at gunpoint. In one instance, armed Boy Scouts were deployed to guard a segregated black camp.

Yet here too the focus is on great men (indeed, women are all but nonexistent). There is LeRoy Percy, the most powerful man in Greenville, Mississippi, and symbol of the Old South. There is Herbert Hoover, "The Great Humanitarian," who is shown here to be far more politically astute and ruthless than that moniker would suggest. And there is the African-American leader Robert Russa Moton, successor to Booker T. Washington at the Tuskegee Institute and chairman of the commission that investigated reports of brutality against flood victims. When the floods came, Percy warned that poor treatment of blacks in the refugee camps would only encourage out-migration to the industrial north. Barry argues convincingly that Percy was right and that this was a more important factor in the black migration than increased mechanization of farming, the more standard explanation.

Barry provides such rich and complete detail on his characters that they come to life on the page. But this focus sometimes leads him astray. For example, the choice of a levees-only policy emerges not from the bitter wrangling of the engineers, but from a bias in federal policy toward internal improvements for interstate commerce. As Barry himself notes, since levees promised to deepen the river channel, while outlets would only make it harder to navigate, federal money was available for the former and not the latter. That levees-only had become the dogma of the U.S. Army Corps of Engineers by the 1920s says more about the personality of that institution than that of its leaders.

Many geographers will no doubt find this work a fascinating account; some, however, might be disappointed that Barry's reverence for the river and the attempt to control its flooding obscures the great waterway's economic function. He makes mention of the competition between railroad and river traffic, but only indirectly in the context of a Reconstruction-era railroad bridge built at St. Louis. Bridges over rivers are often physical manifestations of power relationships between those who travel and ship by land and those who do the same by water. Barry makes mention of this political dynamic, but the building of the bridge at St. Louis is portrayed as evidence of one man's iron will rather than as the upshot of transportation politics. More important, the Great Lakes and New York State Barge Canals are absent from his story. Traffic on the Great Lakes outstripped Mississippi River traffic by the middle of the nineteenth century, and efforts to control the river have been as much about making the river a safe and efficient highway as they have been about flood control. Notably absent from the extensive bibliography in this regard are Louis C. Hunter's classic *Steamboats on Western Rivers* and William Cronon's more recent *Nature's Metropolis*, which discusses the rivalry between Chicago railroads and St. Louis steam boats in some detail.

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