

“DEAD BEYOND RESURRECTION”**Engineering an Enduring Tragedy on the River**By **G. Tracy Mehan III**

Like Christine Klein and Sandra Zellmer, authors of *Mississippi River Tragedies: A Century of Unnatural Disaster*, I grew up on the Big Rivers, in St. Louis, near the confluence of the Mississippi and Missouri, the latter being the largest tributary of the former.

I was steeped in the legend and lore of Father Marquette, Lewis & Clark, Mark Twain, and my ancestors, one of whom journeyed to St. Louis from Quebec by canoe. His son piloted steamboats all the way to Fort Benton, Montana, long before the massive dams were constructed on the Missouri.

I recall, with regret, a passage in Henry Adams's famous autobiography, prompted by his visit to the 1904 World's Fair and the Mississippi, that “the city of St. Louis had turned its back on the noblest work of nature, leaving it bankrupt between its own banks.” The waspish Adams may have been a bit harsh on my home town, in that the fate of the river was as much driven by federal policy as local interests. Still, today, at the foot of the Gateway Arch and its

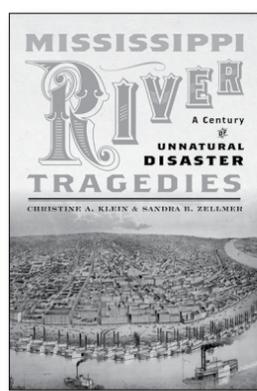
massive fortifications against flooding, is a waterborne highway for behemoth barges, a river too sterile and too dangerous for recreational boating much less swimming or fishing.

The authors, both law professors at the universities of Nebraska and Florida, respectively, paint a poignant portrait of Mark Twain, a steamboat pilot in the 1850s, returning to the Mississippi River a couple of decades later. In *Life on the Mississippi* Twain wrote of his delight in the river de-

spite its dangers. When he returned in 1882, he described the river as “dead beyond resurrection,” having been transformed by “navigational improvements” in the intervening years.

Still, the big river inspires awe. It is T. S. Eliot's “strong brown god-sullen, untamed, intractable.” Eliot was a native of St. Louis, too.

While living in the dormitory, for a time, during law school, all of us residents were mustered as volunteers and put on a bus to West Alton, Missouri, a village of 522 souls, 443 feet above sea level, located at the tip of the peninsula formed by the confluence of the Missouri and Mississippi.



Mississippi River Tragedies: A Century of Unnatural Disaster
By Christine A. Klein and Sandra B. Zellmer. New York University Press; 258 pages; \$35.00.

We were there to pile up sandbags against rising flood waters which were turning the confluence into a gigantic lake. Lifting the sacks above shoulder level, one caught a glimpse of the fast moving waters that have taken so many lives.

Klein and Zellmer offer the reader a heartfelt narrative of the transformation of the Mississippi and its tributaries, by the federal government, i.e., Congress and the Army Corps of Engineers. It was “a tug-of-war be-

tween the river's natural inclinations and society's desires and laws” — in which levees, dikes, jetties, locks, dams, channels, canals, and a myriad of other engineering marvels were constructed, not just for navigation, but flood control. The cruel irony is that the chosen techniques or strategies, especially the original “levees-only” approach, yielded even greater human tragedy and loss through the magnification of the harmful effects of floods and hurricanes. The concept of moral hazard is at the heart of the development of “floodless floodplains,” which the authors call a “silly idea.” It induces people and businesses to build and dwell in areas that, inevitably, will flood and overwhelm the levees behind which they seek protection.

The authors note the joke about God getting a bad rap when human-made disasters are characterized as acts of the Almighty. As Gilbert Fowler White, the “father” of floodplain management, said, “Floods are an act of God, but flood losses are largely an act of man.” Indeed, write Klein and Zellmer, “1) Rivers will flood; 2) levees will fail; and 3) unwise floodplain development will happen if we let it.”

Mississippi River Tragedies offers a historical narrative of the major Mississippi floods of 1903–13, 1927, and 1993; the Missouri River floods which led to the Pick-Sloan plan; and

the hurricanes of 1965 and 2005, Betsy and Katrina. It intertwines this story line with federal legislative history on navigation and flood control as well as a description of an emerging body of “disaster law,” dealing with tort, compensation, and sovereign immunity. This compact book wears its scholarship lightly while maintaining a brisk downstream momentum in its argumentation. It incorporates and encompasses the best writing and research on these matters

from government, academia, and great writers such as Twain, John McPhee, John Barry, and even Marc Reisner.

One trenchant critic of “floodless floodplains” and the levees-only policy was Sir William Willcocks, a distinguished British engineer, with experience on the Nile, the Tigris, and the Euphrates. In 1914 he said, “You have deprived your river floods of the opportunity of spreading out at the sides by contracting them, and so, perforce, they have risen into the air frequently, until, with dire results, they have over-flowed the natural and artificial barriers which normally confine them.”

“Therefore it seems to me that you really have brought greater portion of your vast flood problem upon yourselves by bad management,” sniffed Sir Willcocks. “The problem of the Mississippi is a fascinating one, but more a problem of your national psychology than of your rivers.” Theodore Roosevelt and Gifford Pinchot also were critics of the old approach.

Willcocks supported an approach, one among several recommended by a prior Mississippi River Commission, to protect undeveloped, forested landscapes as reservoirs for flooding water. In fact, the Corps has tried to do this in later years, although not without controversy.

The authors seem to be of two minds about the role of the federal government. They often bemoan its belated entry into a policy area. But they are relentless in exposing “government failure” without using that term or citing the literature on capture of government agencies by regulated entities, public choice theory, or rent-seeking.

The case of the destruction of Louisiana coastal marshes, which might have mitigated some of the

destructive force of Katrina in New Orleans, is a case in point. Dams on the Missouri River cut off sediment flow to the Mississippi and the Gulf Coast. Corps channelization projects propel the sediment into the deep water rather than letting it filter into the marshes. All sorts of roads and other public works lace through the marshes allowing salt water in and killing plants. These are the acts of government not the market.

Klein and Zellmer are critical of the new jurisprudence on “regulatory takings,” seeing it as making land use restrictions more difficult for state and local government to impose. That is a legitimate debate. However,

given the massive congressional and federal footprint in the Mississippi basin, the history of earmarking in appropriations bills, and the preference for engineered solutions, regulatory takings must be a relatively minor contributor to the tragedy they describe in their fine book. Again, government failure is at the heart of this story, not market failure.

They also support removing sovereign immunity protection from agencies like the Corps of Engineers, at least when navigational projects are the cause rather than flood control. Klein and Zellmer cite the damage in New Orleans, during Hurricane Katrina, caused by the Mississippi River Gulf Outlet, which provided a more direct route for the river to the Gulf of Mexico, cutting shipping time but also providing a “hurricane superhighway” into the city.

Speaking of government failure, the authors offer trenchant criticism of the National Flood Insurance Program that creates moral hazards while also subsidizing “repetitive loss” properties that receive multiple payments for multiple disasters in the same floodplain or hazard zone. One percent of all NFIP policies consume an annual average of 30 percent of

all claims. Between 1978 and 2004, these floodplain dwellers received \$2.7 billion in benefits, with some estimates placing it at \$4.6 billion.

Congressional staff, researchers, and impatient policy wonks can cut to the chase by turning to the book's conclusion, “How Law Has Hurt, How Law Can Help,” for a very useful summary of Klein and Zellmer's findings and insightful recommendations. The latter draw, in part, on the landmark work of one of the nation's great leaders, retired Brigadier General Gerald E. Galloway, who led a committee and wrote a landmark report on flood policy reform in the wake of the 1993 floods.

I regret that I am able to review *Mississippi River Tragedies* only after reviewing *Making Space for the River* [“Governance and Making Space for The River,” September/October 2013], which described new developments both in the Netherlands, and within the Army Corps of Engineers, consistent with the prescriptions of Klein and Zellmer. *Tragedies* is an excellent prequel to *Making Space*. These books, together, provide a comprehensive picture of what flood management has been and what it might become.

Nevertheless, we are seeing improvement in national policy. As I have observed before in this space, The Corps is evolving from “flood control” or “flood damage reduction” to “flood risk management.” Katrina and Sandy have moved it and other agencies toward a more resilient strategy incorporating natural and built systems and risk communication. Congress needs to support them in this policy shift.



G. Tracy Mehan III is a consultant in northern Virginia and is an adjunct professor at George Mason University School of Law and the Heinz College at Carnegie Mellon University. He may be contacted at mehan321@verizon.net.