



FROM THE  
**PRESIDENT**  
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The best earth science isn't always found in text books. Some of outstanding descriptions of the natural processes of the Mississippi River have come from popular literature. No amount of academic study can provide the "in the gut" sense of understanding the bed load sediments of the river as this passage from John Barry's book *Rising Tide* in which he describes Captain James Eads walking on the bottom of the river with a bell helmet diving apparatus:

"Without light, Eads could not see the river. He felt it. The bottom sucked at him while the current embraced him in the darkness and silence. The current also buffeted, whipped, bullied, pulled. A diver had to lean against it, push against it. Unlike the wind, it never let up. He later wrote: 'I had occasion to descend to the bottom in a current so swift as to require extraordinary means to sink the bell. ... The sand was drifting like a dense snowstorm at the bottom ... At sixty-five feet below the surface I found the bed of the river, for at least three feet in depth, a moving mass and so unstable that, in endeavoring to find a footing on it beneath my bell, my feet penetrated through it until I could feel, although standing erect, the sand was rushing past my hands, driven in a current apparently as rapid as that on the surface. I could discover the sand in motion at least two feet below the surface of the bottom, and moving with a velocity diminishing in proportion to its depth.'"

Of course, nobody understood the Mississippi River better than Mark Twain. His summation of the efforts of the Mississippi River Commission to control the river is as true today as it was in 1883 when he wrote this passage from *Life on the Mississippi*:

"One who knows the Mississippi will promptly aver—not aloud, but to himself—that ten thousand River Commissions, with the minds of the world at their back, cannot tame that lawless stream, cannot curb it or confine it, cannot say to it, Go here, or Go there, and make it obey; cannot save a shore

which it has sentenced; cannot bar its path with an obstruction which it will not tear down, dance over, and laugh at. But a discreet man will not put these things into spoken words; for the West Point engineers have not their superiors anywhere; they know all that can be known of their abstruse science; and so, since they conceive that they can fetter and handcuff that river and boss him, it is but wisdom for the unscientific man to keep still, lie low, and wait till they do it. Captain Eads, with his jetties, has done a work at the mouth of the Mississippi which seemed clearly impossible; so we do not feel full confidence now to prophesy against like impossibilities. Otherwise one would pipe out and say the Commission might as well bully the comets in their courses and undertake to make them behave, as try to bully the Mississippi into right and reasonable conduct."

The tenuous control of the river was very nearly lost at Old River in 1973, as described here by John McPhee in his book *Control of Nature*:

The Corps had built Old River Control to control just about as much as was passing through it. In mid-March, when the volume began to approach that amount, curiosity got the best of Raphael G. Kazmann, author of a book called *Modern Hydrology* and professor of civil engineering at Louisiana State University. Kazmann got into his car, crossed the Mississippi on the high bridge at Baton Rouge, and made his way north to Old River. He parked, got out, and began to walk the structure. An extremely low percentage of its five hundred and sixty-six feet eradicated his curiosity. "That whole miserable structure was vibrating," he recalled in 1986, adding that he had felt as if he were standing on a platform at a small rural train station when "a fully loaded freight goes through." Kazmann opted not to wait for the caboose. "I thought, This thing weighs two hundred thousand tons. When two hundred thousand tons vibrates like this, this is no place for R.G. Kazmann. I got into my car, turned around, and got the hell out of there. I was just a professor—and, thank God, not responsible."

The wonderful thing about earth science is that it lends itself so well to literature. These passages underscore both the beauty of the science and the importance of understanding the natural processes.

*Chris McLindon*

