

ings or mosques. Why, given all our liberal education and supposed psychological literacy, do we continue to project our fears onto other people? If we can't help ourselves, can't some safeguards be put into place to protect society's scapegoats? Or does society need the ritual—the threat, the war on terror, the bloody retribution and fleeting absolution?

A much scarier book could have been written—a book only a witch might enjoy.

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SCIENCE & TECHNOLOGY

Showdown at Dry Gulch

Reviewed by Geoff Manaugh

ANY BOOK ABOUT DAMS AND water politics in the American West risks comparison to a daunting predecessor: Marc Reisner's *Cadillac Desert: The American West and Its Disappearing Water* (1986), the standard reference for an unusually complex field. Indeed, the breadth and moral conviction of Reisner's argument against the irrational excesses of western water use has yet to be matched. Nonetheless, in *Dead Pool*, James Lawrence Powell achieves something that Reisner did not: force of concentration.

Powell, executive director of the National Physical Science Consortium, focuses on just one dam: northern Arizona's Glen Canyon Dam, constructed starting in 1956 on a remote stretch of the Colorado River. *Dead Pool* zeroes in on the astonishing complication of factors—legislative, topographic, and meteorological—that shaped the dam's creation. While the bulk of the book describes the rapid growth of the Bureau of Reclamation, a branch of the U.S. Department of the Interior founded in 1902 to help irrigate the desert West, it also reminds us of the strangeness of the water-world in which the western states now thrive.

DEAD POOL:

Lake Powell, Global Warming, and the Future of Water in the West.

By James Lawrence Powell. Univ. of California Press. 283 pp. \$27.50

In the 1950s, the Colorado River, flowing from the Rockies to the Gulf of California, presented an irresistible target for industry lobbyists, politicians, and federal hydrologists inspired as much by the experience of the Dust Bowl as by the electrical and agricultural needs of a westward-moving population. Hoover Dam, née Boulder Dam, had proved, upon completion in 1935, that the canyons of the West could be dammed; the Grand Canyon itself, incredibly, had only barely missed being flooded in the early 1950s.

The upper basin states—Colorado, Utah, New Mexico, and Wyoming—needed their own reservoir to help protect against the future thirst of California, and the federal government responded by building Glen Canyon Dam. Behind it is Lake Powell, an artificial sea capable of storing 27 million acre-feet of water and, after spinning through the dam's eight 155,000-horsepower turbines, generating more than four billion kilowatt-hours of electricity a year.

The construction of Glen Canyon Dam was not an act of collaborative hydrology. The Colorado River states are, in fact, in stiff competition with one another, and Powell forecasts dire consequences for their inability to agree on future water rights. "As the hydrologic system falters," he suggests, outlining a scenario in which long-term severe drought returns to the West, "how might the legal system respond?" His short answer: It won't. A regulatory labyrinth of unbelievable proportions has emerged, functioning, like all true bureaucracies, at the precise intersection of illogic and inertia, and helping to produce absurd irrigation schemes worthy of a Monty Python sketch. (As Powell understatedly points out, "Reclaimed lands had often proved to be worth less than the money it took to irrigate them.")

While *Dead Pool's* environmental politics are relatively easy to parse, it's unclear what Powell advocates. Radical conservation of local water resources? Wholesale abandonment of the West? Central—that is, federal—control over the rivers of the western states? Or a states-based approach to water management? These are fundamental questions involving water rights, taxation, agricultural

productivity, endangered species displaced by flooding, summer lakeside recreation, and electrical power for tens of millions of voting Americans.

It is precisely the lack of easy answers that leads Powell, late in the book, to break away from history altogether and write what could be called speculative nonfiction, predicting the future of Glen Canyon Dam—and of the American West in general. We go 10, 20, 50 years into the future, and watch climate change and drought afflict the region, dams fill with silt, and whole cities go thirsty, their lights fading into darkness. At times, the book verges on the apocalyptic: “One day every trace of the dams and their reservoirs will be gone, a few exotic grains of concrete the only evidence of their one-time existence.”

While Powell’s vision of the future is not always convincing, *Dead Pool* ends as a historically important, well-timed, and memorable addition to the growing library of books about water and the West.

Geoff Manaugh is senior editor of *Dwell* magazine; his blog, BLDGBLOG, can be found at bldgblog.blogspot.com. *The BLDGBLOG Book* is forthcoming this spring.

Something for the Pain

Reviewed by Ruth Levy Guyer

BEFORE THE ERA OF ANESTHETICS, walking to the operating room resembled “going to a hanging,” in the words of one surgeon. So imagine what surgery was like for the hapless patient.

The changes that accompanied the advent of anesthetics in the 1840s—particularly in Britain and the United States—are the focus of Stephanie Snow’s *Blessed Days of Anaesthesia*. Anesthetics affected the practice and evolution of general surgery, dentistry, and military medicine, and altered childbirth. They also brought about social changes, as people came to understand that experiencing physical pain was not crucial to a moral life; indeed, sometimes a pain was just a pain.

The earliest anesthetics—ether, chloroform, laughing gas—had distinctive strengths, weak-

nesses, and uses. Dentists favored laughing gas—a short-acting agent—for their quick procedures. Ether required careful titration by a specialist. Chloroform was the easiest to use but also the most commonly associated with overdosing, addiction, and death.

Over many decades, the merits of anesthetics on the battlefield remained controversial. Were they too flammable for use near gunfire? Might their depressant effects hamper recovery in the severely traumatized? “The smart of the knife is a powerful stimulant and it is much better to hear a man bawl lustily than to see him sink silently into the grave,” wrote the British chief medical officer of the Crimean War in 1854, but others believed there were limits to how much trauma one shocked soldier could endure.

In the United States during the Civil War, anesthetics had a second use. Soldiers suspected of malingering were lightly anesthetized and then assigned tasks. Those who performed successfully were dispatched back into battle. Not until the 1880s, Snow notes, did the “concept of traumatic or post-traumatic neurosis become established as a medical category of disease,” accounting for soldiers who were physically able but psychologically scarred.

The elite revered anesthetics. Charles Darwin self-experimented with chloroform and in 1850 gave it to his wife, Emma, during labor, writing that he “kept her in a state of insensibility of 1 & 1/2 hours & she knew nothing from first pain till she heard that the child was born.” Physician John Snow, a central figure in the book and a distant relative of the author, administered chloroform to Queen Victoria during the births of her eighth and ninth children in the 1850s, giving rise to debate in *The Lancet* and other publications between those who found the use of anesthetics for normal birth dangerous and irresponsible and those who embraced the practice.

Anesthetic compounds were initially easy to purchase. Asthma and toothache sufferers self-administered them. Muggers and robbers used them to stun their victims. Individuals caught in

BLESSED DAYS OF ANAESTHESIA:
How Anaesthetics Changed the World.

By Stephanie J. Snow.
Oxford Univ. Press.
226 pp. \$34.95