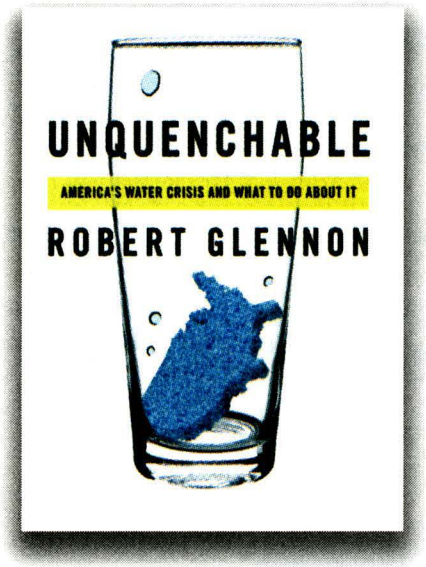
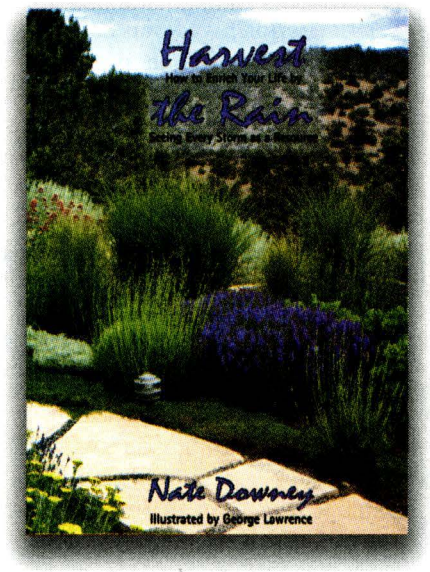
Killing the Thirst

BY TOM PALAIMA





Unquenchable: America's Water Crisis and What to Do About It
By Robert Glennon
Island Press
414 pages, $27.95

Harvest the Rain
By Nate Downey
Sunstone Press
Forthcoming Spring 2010

This summer Texas suffered through its worst drought in half a century. Two hundred and thirty public water systems declared mandatory restrictions. Crop and livestock losses during the preceding nine months totaled $3.6 billion. Seventy of Texas' 254 counties were declared primary disaster areas.

In mid-August, as parts of Travis County were labeled "exceptional drought," the U.S. Department of Agriculture's worst category, the *Austin American-Statesman* published the Austin Water Utility's top 10 users. While profiling households that had used 136,900 to 316,100 gallons of water in single months—the average Austin household uses 8,500 gallons—the paper made clear that "[c]onsuming so much water is not against the law" and that these heavy users had paid their bills. Not one of these conspicuous consumers of our most vital natural resource besides oxygen seemed embarrassed or overly concerned. One, University of Texas professor Bobby Ray Inman, former deputy director of the CIA, spoke of "the irony that I just passed the bills by and never complained about it." Who knows what kind of complaint he had in mind? Another top-10 water waster, Ann Hallead, was described as chuckling in a self-deprecatory manner as she said, "We probably have the greenest grass in Austin."

We take water for granted because we have forgotten that its availability in developed countries is a modern technological miracle. In *Unquenchable*, Robert Glennon, professor of law and public policy at the University of Arizona and an expert in water-rights history and law in the Western United States, examines the factors, historical and contemporary, contributing to the water crisis we face throughout the United States. He tries to make us see the crisis is real. He proposes solutions, but emphasizes that many will be viewed as downright un-American: pricing consumption so that usage beyond a reasonable average becomes more and more expensive; controlling personal appetites even when we have money to indulge them; and sacrificing for the future instead of focusing on what we can get in the here and now.

Nearly every page of Glennon's book offers proof that waiting for rain will not solve our water problems. If rain were the answer, our landscape would not be full of dams, reservoirs, canals, irrigation systems, wells and water pumps. Nor would companies seed clouds—to what effect has never been scientifically proven—or propose water-delivery schemes. Imagine undersea pipelines 2,100 miles long from Copper River, Alaska, to Lake Shasta, California, delivering water to Southern California. We entertain such fantastic plans rather than curtail toilet-flushing, which accounts for 32 percent of our daily domestic water consumption and 2 trillion gallons of our estimated yearly usage—150 trillion gallons.

We can be so profligate because in the past water fixes have been provided by new and spectacular feats of engineering. Los Angeles and San Diego, for example, get their water "through the Colorado River Aqueduct, which transports the water 242 miles across the Mojave Desert and over the San Jacinto Mountains. We literally move water uphill to wealth and power. Thanks to dams, enormous growth has occurred in places without adequate water resources." The existence of Los Angeles, Glennon explains, depends "on an elaborate infrastructure that alters Mother Nature's hydrologic boundaries and profoundly harms the environment."

It's one thing to bring water to cities, another to do what a theme park outside Atlanta did in fall 2007. During a statewide emergency drought, its operators kept running, in 80-degree heat, its newest attraction: an outdoor ski slope requiring 200 tons of freshly made snow daily. By the time skiing was canceled because of negative publicity, 1.2 million gallons of water had gone down the slopes.

Such follies should no longer be amusing. The misuse of water has led to disastrous environmental degradation: salination of once-potable groundwater in coastal areas; depletion of aquifers because of unrestricted pumping rights for farmers and households; flow impairment of streams and small rivers; threats to the Great Lakes, a "nonrenewable source of water, not a great reservoir." Most years the Rio Grande River no longer reaches the Gulf of Mexico. As Glennon notes grimly, "Many of our rivers are already dead or on life support."

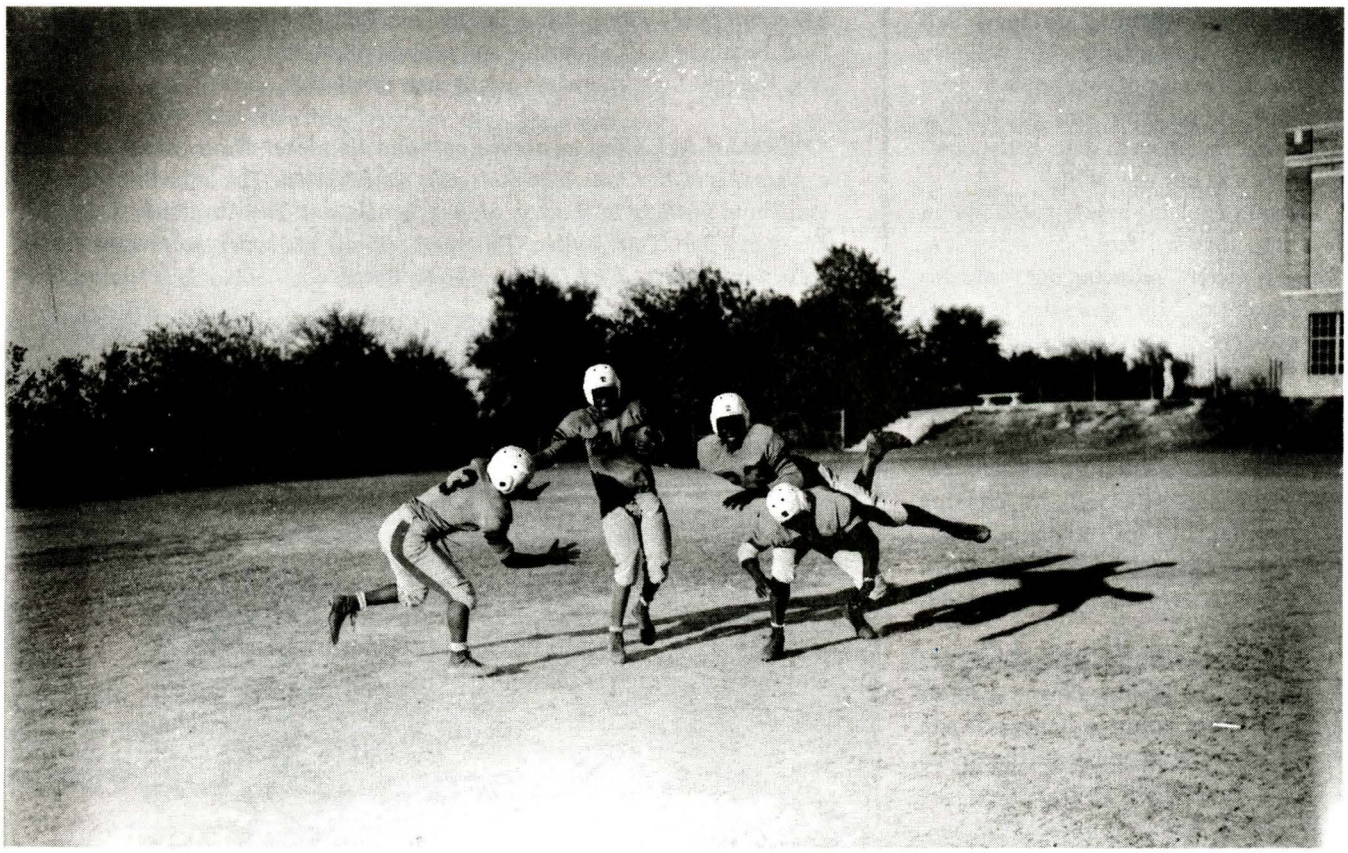
Excessive groundwater pumping has caused land to subside in the San Joaquin Valley, huge earth fissures in Arizona, and enormous sinkholes in Florida. All these events wreak havoc with sewer lines and water pipes, causing more pollution and waste. The underground networks of pipes for water delivery and wastewater removal in major cities on the East Coast are decades past replacement age.

Worse still, many of our newest industries, from manufacturing computer chips to cooling computers in Google data farms, require colossal amounts of water. One new ethanol refinery, run by Granite Falls Energy LLC in Minnesota, requires 160 million gallons a year. Its groundwater pumping dried up farm wells in a three-mile radius.

Water is also used in conventional energy production: 2 to 2.5 gallons to refine a gallon of petroleum; and 0.5 to 0.7 gallon for 1 kilowatt of electricity from a coal-fired power plant. One 60-watt lightbulb left on 12 hours a day consumes between 3,000 and 6,300 gallons a year. Then there is energy used to obtain and move water. Annually in California, "19 percent of the state's electricity, 30 percent of its natural gas, and 88 billion gallons of diesel fuel are used to convey, treat, and distribute water and wastewater."

If amazon.com is smart, it will make a link between *Unquenchable* and Nate Downey's soon-to-appear *Harvest the Rain*. While Glennon gives us the depressing large picture, Downey, an eco-landscape designer for 15 years and for 10 a "permaculture" columnist in Santa Fe, New Mexico, writes with intelligent enthusiasm about what average homeowners can do when they use "concepts like 'a healthy water cycle',

PREVIEW



Football players practice on the field at Fort Worth's I.M. Terrell High School, Nov. 8, 1949. Photographer Calvin Littlejohn captured Fort Worth's black community from 1934 until his death in 1993. This photo appears in *Calvin Littlejohn: Portrait of a Community in Black and White*, by Bob Ray Sanders (TCU Press).

'seven generations in the future', 'aquifer independence' and 'your local foodshed.'" He sees more people, in response to the current economic downturn, focusing on water use in their homes and their neighborhoods.

Downey has designed his book to explain the technical side of green gardening, landscape design and water harvesting, even for those with "limited time and, more recently, a lower-than-expected budget." He uses a mantra: "convenience, return on investment, empowerment, and pleasure." Like Glennon, Downey writes in a captivating style. Readers will find his book, too, is hard to put down. He stresses the gains of green gardening, such as beauty, shade, privacy, wind protection and the joys gardening provides to families and neighborhoods.

Downey shows how simply designed water-catchment devices and the healthy labor of digging, preparing soils and mulches, composting, cutting swales, and sowing and planting, can meet high standards of conservation. You will also improve the beauty of your home in ways that provide pleasure and quench the thirst that threatens to destroy the environment and our way of life.

Downey explains how harvesting rain is a step forward from conservation, which is merely "reducing our resources at a slower rate." He argues that "we cannot preserve our way to sustainability," but through "collection, storage and reuse of precipitation" we can "jump-start nature's ability to regenerate itself." He argues that harvesting can help the national economy, as well, by "creating green-collar jobs for plumbers, architects, landscape professionals, educators, manufacturers, arborists, scientists, [and] laborers."

In his conclusion, Glennon quotes Carl Sagan: "Anything else you're interested in is not going to happen if you can't breathe the air and drink the water." The lesson is simple: Start saving more water today. ■

Tom Palaima is professor of classics at the University of Texas at Austin and a regular book reviewer for the Observer *and* Times Higher Education *in London.*