An "Oracle of Aqua"

Immersed in his favorite element

by Christopher Reed

"Ours is a society of sensual eunuchs, impotent to the callings of the wildness within and as a result, the pull of that which resides outside," writes Robert Lawrence France in his book *Deep Immersion: The Experience of Water*. "Transcending our minds, we must recognize that our bodies are the most concrete example of the natural world within our lives. The secret is to indulge in a phenomenological relationship with the world through direct experience mediated by the body in which we learn the texture, rhythm, and tastes of the physical world about us. In other words, we need to empower our eyes, skin, tongues, ears, and nostrils, and thereby awaken our bodies to truly experience the aliveness of this world."

France is adjunct associate professor of landscape ecology at the Harvard Graduate School of Design and a celebrant of water. Water is in such a bad way, he believes, that it has become impossible to celebrate it as an art form without also worrying about protecting it as a threatened element. He sees hope in the growing interest in ecological restoration. "The act of restoring, remediating—in other words, healing—degraded water is an act of reciprocity," he writes, "important not only for improving the quality of the outside environment of nature, but also that of the internal environment of the psyche, or human nature."

France refers to himself as an ecopsychologist. "The working precept of ecopsychology," he writes, "is based on the supposition that it is impossible to have well persons residing on a sick planet.... Ecopsychology...concerns itself with exploring the motivations, yearnings, needs, and ideals that shape and structure our lives within the environment, focusing on strengthening or even reawakening the reciprocal relationship."

France has been called by Lewis MacAdams—poet, journalist, and founder of Friends of the Los Angeles River—"an oracle of aqua." At a recent academic conference, a colleague introduced him as "Dr. Wet," and at another such gathering he was fumblingly characterized as a "psychoecologist." "There *are* people who are weird about water," he says merrily, "and I'm a quarter of the way through writing a book about them. Aquanuts. I'm not one of them. Not quite."

France is an expert on urban stormwater management, with an international practice. Engineers with an old-fashioned pipe mentality want to get stormwater into the sewers and out of town as quickly as possible, even if said town faces occasional or chronic water shortages. The rainwater that runs off the roads *is* bad stuff, he says, full of bacteria from dog excrement and toxic particles

Photograph by Jim Harrison

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shed by car tires and brake drums, nastier than wastewater from toilets, but France wants to channel it into rain gardens where it can be purified by vegetation. He wants to see porous pavements for driveways and parking lots to allow rainwater to enter the soil and stay in the watershed. He has written numerous scientific papers on the topic (and published, in all, more than 150 papers in peer-reviewed technical journals), organized a design school conference on "Ecological Engineering for Integrated Water Management," is series editor of *Integrative Studies in Water Management and Land Development*, and is the author of *Wetland Design: Principles and Practices for Landscape Architects and Land-use Planners*.

An adviser early on in the master-planning process for Harvard's new Allston campus, he is pleased to see that preliminary plans for the science complex to be built there do call for the buildings to capture stormwater for a variety of possible applications, such as irrigation of interior and exterior plantings, or for fire protection or other non-potable use in a good, "green," sustainable way (see "An Allston Metamorphosis?" November-December 2006, page 66). Moreover, he hopes that the Allston campus will be blue as well as green. Harvard's land, much of it a former salt marsh, once had numerous small creeks that later were covered over and became storm drains. In the spirit of present homage to the past while building a sustainable future, he might like to see some of those creeks "daylighted"—reborn as agreeable water features in the landscape.

The Alewife wetland at the north edge of Cambridge is "a microcosm of everything humans can do wrong with an environment," France says, yet it is both "a cherished and contested landscape." For what is now the Commonwealth's Department of Conservation and Recreation, he assembled a team of engineers and landscape architects and worked with them to develop a master plan for the 120-acre Alewife Brook Reservation. If or when the plan is fully implemented, it will transform the place—one of the largest urban wilds in Greater Boston—into a biologically diverse public park and wetland for cleansing Cambridge stormwater before it is released into the Alewife Brook and thence to the Mystic River and the sea.

France lives near Alewife in North Cambridge, a part of the city with a rich environmental and human history. As with most things that interest him, he hopes one day to write a book about it. At that north edge, Cambridge put its abattoirs, its flophouses, and famine-fleeing Irish immigrants, many of whom manned the brickworks that made many of Harvard's building blocks. In part of the Alewife drainage system lies Danehy Park, in earlier incarnations a wetland, a clay pit, and the city dump, but now 23 percent of the green space in Cambridge. France is a retained adviser to the city's Department of Public Works on stormwater-management issues, and has come to the rescue to help solve flooding at the base of the park. Danehy Park has become a model for similar reclamations elsewhere in the world, he reports. He and Niall Kirkwood, professor of landscape architecture and chair of the department, are working as consultants on a project to convert a mountain of garbage near the Tel Aviv airport, one of the highest garbage dumps on earth, into Ayalong Park during the next 10 years. "It will offer a spectacular view of the city," says France, who has climbed the mountain.

A CANADIAN, France got his bachelor of science degree from the University of Manitoba in zoology, went on for his master's to study the life-history response of the crayfish *Orconectes virilis* to acidification in the lakes of northwestern Ontario, and earned his Ph.D. at the University of Toronto with an ecotoxicological study of what acidification in softwater environments does to *Hyalella azteca*, a quarter-inch-long amphipod. Subsequently, for McGill University, he spent time in Canada's boreal forest studying how important the greenery along shorelines is to the ecology of lakes and rivers. Very important: aquatic animals in those cold climes depend on leaves and other detritus falling into the water to fuel the food webs in lakes and rivers, and on trees at the water's edge to stabilize thermal conditions—so clearcutting lumbermen had better leave a good buffer zone of trees around such bodies of water. That field work ended four years ago, papers have been written, and France's book about the study is forthcoming, "Aquatic Responses to Watershed Clearcutting: Implications for Forestry and Fisheries Management."

Were it not for an epiphany at age 13, following his observations of a pair of graduate students larking at scuba diving and getting course credit for it, France might have trained not as an aquatic biologist but as an archaeologist, for he finds much that fascinates him about 2000 B.C. He organized the design-school conference "Mesopotamian Marshes and Modern Development," about Iraq's Marsh Arabs, who were mightily assaulted by Saddam Hussein, using desertification as one of his weapons (see "Paradise Lost?" January-February 2005, page 30). France is contributing to and editing two scientific books to come out of that conference: "The Iraqi Marshlands: Restoration and Management" and "Rebuilding Cultural Landscapes Destroyed by Conflict and Natural Disasters." He edited *Wetlands of Mass Destruction: Ancient Presage for Contemporary Ecocide*, an outgrowth of the conference, and he is under contract to Harvard University Press for "Back to the Garden: Searching for Eden in the Mesopotamian Marshes," a summary account of these ancient Sumerian wetlands, the site of Gilgamesh's Flood and—at the confluence of the Tigris and Euphrates Rivers—paradise.

"Books are my drug," says France. He reads a great many of them, to which *Deep Immersion* attests. Its core is an exploration of how scores of contemporary nature writers convey their engagement with water in lakes, rivers, wetlands, springs, ephemeral pools, and the ocean, a section bracketed by essays built on wide reading about the importance of water in history, religion, literature, cinema, music, art, and architecture, and other chapters about ecological restoration and what might be called the landscape architecture of water, all revealing an addiction to the printed page. And he writes or edits, or intends to, a great many books himself. Prolific though he is, one marvels at his to-do list.

France is an acolyte of the sage of Walden Pond, Henry David Thoreau, A.B. 1837. How could he not be? He has edited *Reflecting Heaven: Thoreau on Water* and *Profitably* *(please turn to page 95)*