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Book Reviews

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The Man Who Thought He Owned Water: On the Brink with American Farms, Cities, and Food, T. D'Elgin (Editor). University Press of Colorado, 5589 Arapahoe Ave., Ste. 206C, Boulder, CO 80303. 2016. 287 pages. \$30. ISBN: 978-1-607-324-959.

The Man Who Thought He Owned Water is an insightful memoir informed by the author's extensive experience with water rights, farming, and aquatic ecosystems in the arid West. Author Tershia D'Elgin recounts her father Bill's version of the American dream: survive the war (in this case, WWII), run away and marry your sweetheart, save enough money to buy a piece of land big enough to live off of, and then spend your retirement enjoying the fruits of your labor. Bill Phelps accomplished the first three tasks easily enough, but the fourth proved harder than he anticipated. One can learn how to manage a farm properly, plan optimal crop rotations, and select champion livestock one by one in order to build a successful endeavor, but in the end, the endurance and profitability of any farm depend on the availability of one thing: water. And in the West, that one thing is elusive.

The book's title refers to Bill's purchase of water rights and his experience over decades with water management. In spring and summer, Bill and his fellow farmers irrigated with the surface water delivered to them through irrigation ditches according to their water rights. Those with the most senior rights were allotted their water first, and the most junior rights-holder received water last. When the surface water dried up, the farmers pumped from their wells to finish the growing season. For many years, this system worked fine, and all rights-holders had sufficient water to meet their needs.

However, the time of plentiful water in Colorado eventually drew to an end. More and more farmers

and well owners began withdrawing from the aquifer, and senior rights-holders contended that unchecked groundwater pumping was encroaching on the river water flows and consequently their water shares. The Colorado Legislature took up the issue of groundwater management in 1965 and ceased permitting new wells unless the well owner could offset the groundwater pumped. Four years later, the passage of the Colorado Water Right Determination and Administration tied surface and groundwater rights together, and those whose water rights were "first in time" were entitled to their full share of water regardless of whether it came from surface sources or wells. When the law first passed, farmers were uncertain how it would be enforced, and continued to irrigate as they always had, but that too came to an end.

The law affected the agricultural industry profoundly when it was fully implemented and water was redistributed to those with senior rights. Bill and the other farmers who had historically irrigated with groundwater during periods of dryness were cut off from their own wells, which were located on their own property and drilled and maintained at their own expense. This action by the State shocked farmers who never thought the water rights they bought, payed for, and owned could be stripped from them and handed over to urban users. Upon receiving notice, they could not pump until the water court approved a water augmentation plan for their wells, the farmers were completely baffled. In their minds, they "owned" water rights, but those rights were actually on loan, and when the drought was at its worst, the loan came due. Instead of getting beaten up by a bookie's henchmen, the farmers had their irrigation lines cut off. If given the option, how many would have opted for a beating in exchange for maintaining their water flows? They were crippled either way.

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Not being able to use water during the drought was just the beginning. To add insult to injury, well owners were required to locate, buy, and physically acquire replacement water to offset 100% of the groundwater they pumped so as not to encroach on senior water-rights holders who contended that groundwater withdrawals cut into their shares of river water allocations. D'Elgin's story as recounted here is a classic tale of city versus country, the haves against the have-nots, new guard versus the old guard, etc. High-priced lawyers represented the interests of developers, not family farmers. It goes without saying farms are thirsty places since fruits and vegetables are comprised mainly of water, so it is not surprising that more than 85% of water diversions in Colorado are used for agricultural production. Also, a good deal of that produce supports urban populations. The best use of water was not determined by the many who survived on the high-quality food produced in Colorado, but by the few who benefited from its misappropriation to burgeoning towns that lacked local water supplies. The author expresses dismay that her own sister, who also grew up on the family farm, values the city's use of water for lawns, swimming pools, and hot tubs above that of farmers' needs. Apparently an environmentally focused and liberal upbringing is not sufficient to instill an appreciation of natural resource protection into every person.

The author continues to tie all of her observations back to water. Over the course of 20 chapters, D'Elgin takes the reader on a far-flung journey, beginning with her youth shuttling with her parents between Denver and their farm on the South Platte River, treading through asides on her ancestry and the pioneer history of Colorado's founders, and ending with her widowed mother's heroic efforts to reclaim the family's battered farmhouse from the deluge of a 1,000-year Colorado flood. (The description of

the drought-ruined soil emblemizing her family's decades-long struggle to maintain sufficient irrigation water throughout an era of near-perpetual drought provides a juxtaposition to the farmhouse's eventual flooding.) When the farm caretaker Ernesto uncovers a likely Triceratops rib, it is an opportunity to muse how Coloradoans now shower with the same water the dinosaurs consumed. A decline in statewide frog population is attributed the water depletions caused by urban over-use. In a particularly poetic turn, D'Elgin portrays her father's surrender to emphysema as occurring concurrently with a long-term drought that left him unable to meet the farm's irrigation requirements. She likens his gasping to that of a "fish out of water," which described his own inability to breathe as akin to the choking of his farm's lifeline when wells were shut off by the State of Colorado to curtail agricultural use during the worst drought in 200 years. The comparison is poignant and illustrative of D'Elgin's deep connection to the subject.

In closing, readers who seek a fresh and personal perspective on how family farms have been affected by water rights and legislative action may find *The Man Who Thought He Owned Water* appealing. The book is appropriate reading for anyone interested in water and environmental issues, and may be especially helpful to students who wish to learn about the complex world of Colorado water rights. The story is compelling and the writing is vigorous, making the information within easy to read, comprehend, and retain, making it a good choice for discussion groups or student seminar courses.

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