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## Hydraulic Empire

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# HYDRAULIC EMPIRE

*Joseph L. Sax\**

THE GREAT THIRST: CALIFORNIANS AND WATER, 1770S - 1990S.  
By *Norris Hundley, Jr.* Berkeley: University of California Press.  
1992. Pp. xix, 551. \$25.

A book recounting the history of water projects in California is not, to put it mildly, likely to attract a vast audience of casual readers. For those of us who work in the area, a scholarly chronicle by Norris Hundley,<sup>1</sup> the preeminent water resource historian, is an occasion to celebrate. The question is whether there is any reason to commend it to a general audience. I think there is.

The story of the plumbing of California may be the best extant case study of the effort to realize the American dream, and how it fell short. Unlike the now-familiar tale of the decline of American manufacturing, this is not a story of fabulous success followed by corporate and union ineptitude and the subsequent triumph of an energized and ambitious Japan. What happened in California is far more subtle and in its way more profoundly disturbing, for the failure was bred in the bone of its own success.

California is an unnatural place, and not just in the way that crude comedians think. It has fabulously fertile land for agriculture stretching north and south for 400 miles, but it lacks sufficient local water sources to put that land into production. Along the coast, all the way from the San Francisco Bay to the Mexican border, it offers the most salubrious settings for urban living in North America, but the entire region is semiarid and incapable of supporting large populations on its native supplies of fresh water.

Had it been compelled throughout its history to live off its resources where they were found, California in the 1990s would look profoundly different than it does. But of course it was not so limited. Technology and vision transformed it. Those who think our politicians have always lacked a capacious view of the national future, or believe that this country has never had an industrial policy, will stand back in amazement when they read Hundley's story. At a time when Los Angeles was one fifth its present size and one tenth its present

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1. Professor of American History at UCLA, Managing Editor of the *Pacific Review*, and the author of many books on water and western history, including *California: History of a Remarkable State*.

population, and when most of the state's south coast was barely populated, California's political and business leaders envisioned and brought into being a vast project to transport water hundreds of miles by gravity flow, and at the same time to generate electricity as the water was brought down from the mountains in the aqueducts they built.<sup>2</sup> San Francisco and the East Bay cities built similarly ambitious projects. As Hundley puts it:

[F]requently overlooked in this present age when segments of the public automatically equate cities with environmental destruction, both Los Angeles and San Francisco reflected Progressive values nationally that were ascendant when the two cities launched their projects. They provided the people what they obviously wanted: clean, fresh, abundant, and inexpensive water [and the ousting of private water monopolies]. This demand was of a piece with the public's insistence on pure food and drugs; on playgrounds, schools, and good universities; on cheaper and better transportation . . . and the host of other achievements associated with Progressive Era reforms. [p. 193]

The same energy led to the financing and construction of public infrastructure for water supply in order to establish a prosperous agricultural economy. This is exactly the sort of active government-business cooperation that we associate with forward-looking industrial policies. Paralleling municipal projects for urban water supply, the federal Bureau of Reclamation, under the leadership of Arthur Davis, began to plan the harnessing of the 1400 mile-long Colorado River. Hundley says of Davis:

[H]e had deep faith in the role of experts, . . . worshipped efficiency, and viewed the federal government as a major instrument for social and political reform. . . . Davis was convinced that the West's water supply problems were so enormous and complex that their solution required central planning and federal funding on an unprecedented scale. [p. 203]

Ultimately, the lower Colorado was subdued behind the Hoover Dam, setting the stage for a stable agricultural industry in the Imperial and Coachella Valleys in southernmost California, and for the transmission of Colorado River water across the state to supply the fast-growing metropolitan region stretching from Los Angeles to San Diego.<sup>3</sup>

These were the sort of projects that America once embraced as symbols of progress, opportunity, and ingenuity, the hydraulic empire that created the modern West. The dream has hardly become a nightmare, but the very things that the old Movietone Newsreels once trumpeted as icons of America's greatness — the vast dams, turbines,

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2. The story of Los Angeles' appropriation of water from the Owens Valley has often been recounted. The best and most recent books are MARC REISNER, *CADILLAC DESERT* (1986), and WILLIAM L. KAHRL, *WATER AND POWER* (1982).

3. For background on the development of the lower Colorado River, see ROBERT GOTTLIEB, *A LIFE OF ITS OWN: THE POLITICS AND POWER OF WATER* 125-35 (1988), and NORRIS HUNDLEY, *WATER AND THE WEST* (1975).

and aqueducts gushing water — have now become our primary images of environmental and social failure.

What went wrong, and how? Hundley's book is an effort to explore those questions. Perhaps the most engaging aspect of Hundley's story is his attention to the least advantaged people and how they fared as California, nourished by publicly supported water projects, moved on to ever more fabulous levels of wealth and productivity. The state's history as an environmental disaster has now been well told a number of times,<sup>4</sup> and Hundley does not by any means ignore it. But he is especially drawn to ask why the promise of prosperity was repeatedly broken for the most needy.

The Hundley book may be read as a study, in the context of California water history, of the inability of American legal and social institutions to prevent a relatively few large owners from capturing the primary benefits of public resources. He begins by observing the communitarian tradition in both the Indian and Spanish water cultures, which preceded the European settlement. "[A]nother feature in counterpoint with the future," he writes, "was the absence among Indians of a private property right in the use of water" (p. 23). Similarly, in Spanish law "the basic principle in allocating water was 'proportionality' — people obtaining an amount in proportion to their legitimate needs and in proportion to the volume of water available" (p. 28).

By contrast, Hundley observes, the American system "established priority of use, not considerations of equity or justice, as the determinant of who got water and how much," and "it gave no advantages to communities over individuals" (pp. 72-73). That is true, but it is only part of the story. Relatively speaking, western water law is strongly focused on community needs. Unlike most property law, it prohibits both waste and speculation, and it permits ownership only of what one can use.<sup>5</sup> It has a Jeffersonian element to it, as did public land law in the west. Limitations on acreage (as in the Homestead Act<sup>6</sup> or the Reclamation Act<sup>7</sup>) and requirements for cultivation (as in the Desert Land Act<sup>8</sup>), were designed to keep lands from falling into the hands of wealthy speculators. But for various reasons, such as fraud and the inability of small owners to raise the capital to make their lands workable, restrictions were sometimes removed, and more and more land fell into the hands of large land companies. Today, just as a century

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4. *E.g.*, CALIFORNIA'S THREATENED ENVIRONMENT (Tim Palmer ed., 1993); THE CALIFORNIA NATURE CONTROVERSY, SLIDING TOWARD EXTINCTION: THE STATE OF CALIFORNIA'S NATURAL HERITAGE (1987) (report to the California Senate Committee on Natural Resources and Wildlife).

5. JOSEPH L. SAX ET AL., LEGAL CONTROL OF WATER RESOURCES 164-65 (2d ed. 1991).

6. Act of May 20, 1862, ch. 75, § 1, 12 Stat. 392 (repealed 1976).

7. Act of June 17, 1902, ch. 1093, § 5, 32 Stat. 388, 389 (current version at 43 U.S.C. § 375 (1988)).

8. 43 U.S.C. § 321 (1988).

ago, a large percentage of California's most valuable agricultural land is owned in very large holdings.<sup>9</sup> The idealistic vision of small, independent, family-owned farms never took hold.

Everything seemed to conspire against democratization of California's riches. Hundley describes in some detail the notorious nineteenth-century court battles between advocates of riparianism and prior appropriation.<sup>10</sup> He notes the appropriation proponents' hope that recognition of appropriation would undercut the power of the riparian monopolists Miller and Lux and permit the more remote uplands, without direct access to the rivers, to be subdivided and sold to small farmers (p. 93). But in fact large landowners had already secretly filed appropriations on most of the water anyway. In response, a movement arose to empower small owners by creating community-controlled irrigation districts<sup>11</sup> in order "to foster community values, promote small family farms, and curb the monopolistic excesses produced by the rampant individualism of California's pioneer capitalists" (p. 98). But these communitarian efforts at best met with a very limited success. Drought, fraud, costly litigation by large landowners, and inability to sell bonds to finance common irrigation works meant that most agricultural land remained in large ownerships.

Then the federal government entered the picture with the Reclamation Act of 1902.<sup>12</sup> The statute too had as a goal the creation of family farms, and it contained several antimonopoly provisions — acreage limitations, residency requirements (to prevent absentee ownership), and constraints on alienability to keep the water close to the land. But from the very beginning the law went unenforced. Though agribusiness interests failed to obtain congressional exemption from the law, they received something just as good: official agreement to nonenforcement. Hundley describes in detail how the head of the Bureau of Reclamation was induced to adopt a policy of "technical compliance":

Such compliance took several forms. If a corporate farm was owned by stockholders, each could obtain water for 160 acres [the official limit of federally supplied low-cost water]. Another possibility would be for a grower to deed land to his relatives and children. An owner could also deed land to employees and then lease it back. [pp. 265-66]

The net result of all these machinations was to destroy native communities, disenfranchise the Hispanic rancho owners, and give rise to a class of impoverished agricultural-industrial workers (p. 87). Hundley

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9. REISNER, *supra* note 2, at 385-87.

10. The most famous example is discussed in DONALD J. PISANI, FROM THE FAMILY FARM TO AGRIBUSINESS: THE IRRIGATION CRUSADE IN CALIFORNIA AND THE WEST 1850-1931 ch. 8 (1984) ("*Lux v. Haggin*: The Battle of the Water Lords").

11. The Wright Act, 1887 Cal. Stat. 29. This Act is discussed in DONALD WORSTER, RIVERS OF EMPIRE 108-09 (1985).

12. P.L. No. 57-161, 32 Stat. 388.

finds part of the explanation for the distributional failure of water policy in the tension between the Jeffersonian idealism reflected in the law and a deeper political culture that emphasized laissez-faire individualism and local concentration of power and decisionmaking. Community-building goals that might have distributed benefits more widely were regularly thwarted by the undertow of an individualistic culture hostile to community. According to Hundley:

The burden of change fell heaviest on the Indians, of course, and then on the displaced Californios, the landless of all ethnic groups, and the small and would-be farmers, while leaving the wealthy land and water barons virtually unscathed . . . . [P]rior appropriation, the hybrid California legal doctrine of water rights, and hydraulicking[] [as a mining technique, washing away mountainsides] benefitted few at the expense of many. [p. 117-18]

Even where public entities took control, as in Los Angeles' "urban water imperialism" (p. 120), benefits somehow flowed irrevocably to the rich and powerful. As Hundley observes: "The rapidly expanding boundaries, economic development, and profits generated by the arrival of Owens River water [imported by Los Angeles] created many personal fortunes, some so large that they aroused suspicions of corruption" (p. 158).

In fact, a syndicate including some of the richest and most powerful figures in Los Angeles secured an option to purchase land in the then-desolate San Fernando Valley just a few months after Los Angeles had effectively decided to acquire Owens Valley water. The syndicate purchased the land on the very day that the city got its option to acquire the water that would turn the San Fernando Valley into a fabulously valuable holding. As Hundley dryly puts it, "[t]o see these closely timed events as coincidences begs credulity" (p. 159).

The shadowy underside of all the great visionary projects and the huge federal subsidies to growers was a persistent agricultural underclass whose plight was finally made public in the 1930s with books such as John Steinbeck's *Grapes of Wrath*<sup>13</sup> and Carey McWilliams' *Factories in the Field*.<sup>14</sup> In addition, a remarkable study by Walter Goldschmidt, contrasting farms with small acreages and more evenly distributed incomes with those that were more industrialized and relied largely on low-paid laborers, showed striking differences.<sup>15</sup> The former had "a higher standard of living, a richer community life, more schools and parks . . . . 'Differences in the communities may properly be assigned confidently and overwhelmingly to the scale-of-farming factor.'"<sup>16</sup>

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13. JOHN STEINBECK, *GRAPES OF WRATH* (1939).

14. CAREY MCWILLIAMS, *FACTORIES IN THE FIELD* (1939).

15. WALTER GOLDSCHMIDT, *AS YOU SOW* (1947).

16. P. 262 (quoting SENATE SPECIAL COMMITTEE TO STUDY PROBLEMS OF AMERICAN SMALL BUSINESS, 79TH CONG., 2D SESS., *SMALL BUSINESS AND THE COMMUNITY: A STUDY*

But reform efforts came to naught. McWilliams' radical solution, to transform the large agricultural estates into farms collectively owned by the people working them, was rejected as too radical by President Roosevelt and his Secretary of the Interior, Harold Ickes. Agricultural interests condemned even the far more modest suggestion to enforce the existing acreage limits of the Reclamation law as "trying to socialize agriculture and force Communism upon the people of the San Joaquin Valley" (p. 261). The outcome was the doctrine of "technical compliance" described earlier.

The story goes on and on. In the 1950s and 1960s a state water project was built without any acreage limits, and it provides water to some of the largest corporate landholders in America, such as Standard Oil (89,000 acres) and the Kern County Land Company (223,000 acres) (p. 273). Not surprisingly, as Hundley reports, the burden of paying for the bulk of the project fell on the taxpayers, "with the corporate farmers of Kern County receiving their water at bargain rates" (p. 290). Agricultural worker problems continued, first under the Bracero program, then in the use of undocumented workers, and still later in "the state's failure to effectively enforce a 1975 law assuring workers secret and fair elections to determine union representation . . . [as well as] destructive rifts over policy among labor organizers themselves . . ." (p. 297).

A 1980 study reaffirmed the work Goldschmidt had done thirty-five years earlier,<sup>17</sup> observing in agricultural communities dominated by large corporate farms "some of the worst poverty conditions . . . found anywhere in the State of California" (p. 381) as well as the lowest levels of educational attainment, low family incomes, and overcrowded and substandard housing. Ironically, the only problem the study did not find was unemployment. Those people work!

That all these misfortunes persisted in the face of enormous public investment and large taxpayer subsidies, and during a time when the state was experiencing the greatest population and economic growth of modern times, says something pathetic about our incapacity to make the American dream come true for those who need it most. Norris Hundley's book, *The Great Thirst*, elegantly describes how it all did not happen.

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IN CENTRAL VALLEY OF CALIFORNIA ON EFFECTS OF SCALE OF FARM OPERATIONS 13 (Comm. Print 1946)).

17. P. 381 (citing DEAN MACCANNELL, DRAFT REPORT ON CURRENT SOCIAL CONDITIONS IN THE COMMUNITIES IN AND NEAR THE WESTLANDS WATER DISTRICT 3-4 (Davis, Univ. of Calif., 1980)).