Agricultural History, Vol. 65, No. 4 (Autumn, 1991), pp. 15-37

Land Monopoly in Nineteenth-Century California

DONALD J. PISANI

In no American state was land monopoly more of a perceived problem than in nineteenth-century California. Many social critics considered it *prima facie* evidence that wealth and privilege had triumphed over equity and the general welfare. They saw the symptoms of this disease in retarded immigration rates; in the concentration of people in cities; in the growth of what they took to be a lazy, unproductive aristocratic class whose "artificial" wealth was based on rents and speculative profits; in the volatility of a "boom and bust" economy; in suitcase farming and worn-out soils; and in the emergence of an agricultural caste of "wage slaves," which undermined the independence and security of free labor. Monopoly was inimical to the small farm, which, it was assumed, provided food at cheaper prices, stimulated the growth of transportation, strengthened public education, and offered markets to fledgling industries. Even more important, boosters assumed that small farms strengthened the family and that an egalitarian, democratic society could not survive without widespread landownership. The small freehold was at once the source of economic stability and the well-spring of republican virtue.[1] This paper examines the "problem of monopoly," how it originated and why it became a permanent feature of California agriculture. Although it builds on the superb work of Paul Wallace Gates—who echoed many of California's nineteenth century social critics—it argues that the state's scarcity of water and the nature of irrigation agriculture contributed even more

DONALD PISANI is Professor of History, University of Oklahoma, Norman.

1. Charles A. Barker, "Henry George and the California Background of Progress and Poverty," *California Historical Quarterly* 24 (June 1945): 97–115; *Sacramento Daily Record-Union*, August 4, 1877; *Report of the Joint Committee to Inquire into and Report upon the Condition of the Public and State Lands Lying within the Limits of the State* (Sacramento, 1872), pp. 5–7; *Report of the Committee on Land Monopoly* (Sacramento, 1874), pp. 193, 195.

to the concentration of ownership than venal, short-sighted, and carelessly drawn national and state land laws.

In March 1876 the *San Francisco Chronicle* lamented that "[t]here never has been a State on the continent in which the land laws were so well devised for monopoly and so directly against settlement and production, in which titles were as much clouded, and where it has been as difficult as here for men of small means to obtain a clear title, at a reasonable cost, to a homestead and farm. . . ."[2] An 1872 California legislative report showed that each of 122 individuals and companies owned more than 20,000 acres in California. These landowners were cattlemen, wheat farmers, and a wide variety of speculators, including former state officials. Bixby & Flint held 334,000 acres; Miller & Lux 328,000; William S. Chapman and associates, 277,600; Edward F. Beale, 173,000; Isaac Friedlander, 107,000; and Dibble & Hollister, 101,000. Perhaps even more alarming, 2,298 people owned more than 1,000 acres, and the 620 largest farms and ranchos in California averaged 22,000 acres.[3] By the 1870s, the state's easily arable land was gone, and the legislature—which had done much to encourage monopoly in the 1850s and 1860s—debated ways to break up these giant holdings through massive levies on unimproved land; graduated land taxes; the elimination of taxes on crops, buildings and other improvements; direct limitations on the size of farms; and restrictions on the amount of land that could be inherited. None of these proposals, however, won widespread support among the lawmakers.

No explanation of the concentration of land ownership in the two decades after statehood is possible without considering the work of Paul Gates.[4] Historians have criticized Gates's studies of state and national land

2. As quoted in Paul W. Gates, "Public Land Disposal in California," *Agricultural History* 49 (January 1975): 168.

3. Gerald D. Nash, "The California State Land Office, 1858–1898," *Huntington Library Quarterly* 27 (August 1964): 348.

4. For introductions to Gates' work see his "An Overview of American Land Policy," *Agricultural History* 50 (January 1976): 213–29, and his monumental *History of Public Land Law Development* (Washington, D.C., 1968). Gates essays on California have been collected in a volume entitled *Land and Law in California* (Ames: Iowa State University Press, 1991), for which Lawrence B. Lee has written an excellent introduction. The pieces include, in chronological order: "Adjucation of Spanish-Mexican Land Claims in California," *The Huntington Library Quarterly* 21 (May 1958): 213–56; "California's Agricultural College Lands," *Pacific Historical Review* 30 (May 1961): 103–22; "California's Embattled Settlers," *California Historical Society Quarterly* 41 (June 1962): 99–130; "Pre-Henry George Land Warfare in California," *California Historical Quarterly* 46 (June 1967): 121–48; "The Suscol Principle, Preemption, and California Latifundia," *Pacific Historical Review* 39 (November 1970): 453–71; "The California Land Act of 1851," *California Historical Quarterly* 50 (December 1971): 395–430; "Corporate Farming in California," in Ray A. Billington, ed., *People of the Plains and Mountains: Essays in the History of the West Dedicated to Everett Dick* (Westport, Conn., 1973), 146–74; "The Fremont-Jones Scramble for California Land Claims," *Southern California Quarterly* 56 (Spring 1974): 13–44; "The Land Business of Thomas O. Larkin," *California Historical Quarterly* 54 (Winter 1975): 323–

policies in the Midwest for idealizing the family farm and small farmers, for not recognizing the varieties and social benefits of land speculation, for not realizing that in parts of the region tenantry was a passing phase that helped some farmers eventually to own their own land, for placing too much emphasis on formal land policies and not enough on the changing nature of agriculture or local economic conditions (such as the availability of capital), and for not acknowledging that the perversion and abuse of land policies was part of a broad-based threat to the "small operator" which accompanied the emergence of the corporate state. (If the small farmer was victimized, one argument runs, so were millions of workers, small businessmen, and even corporations.) These are fair criticisms, though many of Gates critics have been more concerned with agricultural productivity and "efficiency" than with the concern for social justice and democratic values that animated his work. Moreover, they have largely ignored California, which was the subject of Gates's most penetrating essays.[5]

44; "Carpetbaggers Join the Rush for California Land," *California Historical Quarterly* 56 (Summer 1977): 98–127; "Public Land Disposal in California," *Agricultural History* 49 (January 1975), 158–78; "California Land Policy and its Historical Context: The Henry George Era," in Eugene C. Lee, *Four Persistent Issues: Essays on California's Land Ownership Concentration, Water Deficits, Sub-State Regionalism, and Congressional Leadership* (Berkeley, 1978), 3–30; and *Land Policies in Kern County* (Bakersfield, Calif., 1978).

5. The following essays offer useful perspectives on Gates' work: John Gjerde, " 'Roots of Maladjustment' in the Land: Paul Wallace Gates," *Reviews in American History* 19 (March 1991): 142–53; Harry Scheiber, "The Economic Historian as Realist and as Keeper of Democratic Ideals: Paul W. Gates' Studies of American Land Policy," *Journal of Economic History* 40 (September 1980): 585–93; Donald L. Winters, "Agricultural Tenancy in the Nineteenth Century Middle West: The Historiographical Debate," *Indiana Magazine of History* 78 (June 1982): 128–53; Margaret B. Bogue and Allan G. Bogue, "Paul W. Gates," *Great Plains Journal* 18 (1979): 22–32; and Frederick Merk's forward to David M. Ellis, ed., *The Frontier in American Development: Essays in Honor of Paul Wallace Gates* (Ithaca, N.Y.: 1968).

Gates was a Progressive historian who saw the past as a morality play characterized by persistent clashes between the haves and have nots, the powerful and the powerless. His passionate commitment to equality and fairness resulted in a moralism and presentism that sometimes blurred the complexity of issues and personalities. Virtually all large land speculators appear as selfish, socially pernicious types, while speculation by farmers—probably the most pervasive form of gambling in the nineteenth century—is forgiven or justified as a necessary adjunct to agriculture in a highly volatile market economy. The law, courts, and judges, generally appear as servants of property and privilege, and corporate farms are invariably portrayed as sinister and repressive. Gates concluded his 1973 essay, "Corporation Farming in California," with the following indictment: "They [agribusiness companies] have long conducted a vendetta against organized labor and through the Associated Farmers of the nineteen thirties used their power to deny civil liberties to labor leaders by a combination of crude vigilantism and pliant local officials and courts. They have successfully resisted the enforcement of the 160-acre excess-land provision of reclamation legislation [abandoned in the early 1980s] and are partly responsible for the huge California Water Project that promises much to the large land owners at the expense of the tax payer. . . . [T]hrough their alliance with the utilities, the railroads, the real estate lobby, and the oil companies, the great land companies are in effective political and economic control of California." (p. 169) This, in Gates' mind, was the painful legacy of nineteenth century California land policies.

Gates's fascination with California was understandable. It was a state where monopoly was far more persistent than in the Midwest or New York, and it was a state where the baneful effects of concentrated, nonresident ownership were painfully obvious in the almost complete absence of a rural society and stable rural communities. From Henry George to Paul Taylor, Walter Goldschmidt, and Carey McWilliams, social critics had warned of the dangers of concentrated landownership, but none understood the land system like Gates. Unlike the experience of older states, such as New York and Ohio, in the Golden State land monopoly became more, rather than less, virulent as time passed; the family farm as it was known in New England and the Midwest never had a chance.

The problem began, Gates argued, with an 1851 law that provided a process to confirm the Mexican land grants made before 1846. That statute required every title holder to file a title claim with a federal commission within two years. The commission's decisions could be appealed first to a district court and then to the United States Supreme Court. The commission and the courts were required to observe not just the Treaty of Guadalupe Hidalgo, but also United States laws, court decisions, and principles of equity. In all, Spanish and Mexican authorities made 750 grants that totaled between 13 and 14 million acres—13 or 14 percent of the entire state. They ranged in size from less than 20 acres to the 115,000 acres included within the former San Fernando Mission. Many families held multiple claims—for example, the De la Guerra family had title to 326,000 acres confirmed and the Carillo family 320,000. The Mexican grants included the sites of California's largest cities and much of its best farm land outside the San Joaquin Valley.[6] The board reviewed its first application in January 1852 and approved the first claim in August. Most titles were confirmed within a few years, and over 75 percent were upheld—553 grants covering 8,850,000 acres.[7]

Gates boldly rejected the judgment of an earlier generation of California historians who regarded the Land Act of 1851 as institutionalized theft, a pretext by which land-hungry Anglo-Americans robbed Mexican Americans of ancestral estates. Instead, he insisted, the law was a "statesmanlike measure" that *favored* the original grantees.[8] It was not unprece-

6. Gates, "California Land Policy and its Historical Context," 7; W. W. Robinson, *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads* (Berkeley, 1948), 70–71; Joseph Ellison, *California and the Nation 1850–1869: A Study of the Relations of a Frontier Community with the Federal Government* (Berkeley, 1927), 8–24.

7. Gates, "Adjudication of Spanish-Mexican Land Claims in California," and "The California Land Act of 1851."

8. In a brilliant expose, Gates pointed out that the legislation's leading sponsors, William Carey Jones and John C. Fremont, had received grants of their own or had purchased land from

dented; Congress had anticipated the legislation in earlier laws designed to confirm claims by foreign nationals in the new states of Louisiana, Florida, and Missouri. Moreover, the problem was not that the land commission moved too slowly, but just the reverse. Congress and the residents of California wanted fast action; consequently, the commission confirmed some highly doubtful claims, including the Limantour tract in the heart of San Francisco, a judgment later overturned in the courts, but not before it created chaos in the business district. The commission finished its work in 1856, though some claims survived in the courts for years thereafter. Mexican grantees hired the state's most skillful lawyers, and some San Francisco title companies specialized in gathering information in Mexican and Spanish archives and finding witnesses for the claimants. The commissioners, however, were political appointees. None knew much about land law, nor did they read or speak Spanish, and their staff was hopelessly overworked as it tackled the 813 cases. Only after the emergence of three overlapping claims to much of San Francisco did Congress arrange for the hiring of Edwin M. Stanton to provide a defense equal to the legal talent arrayed on the other side. Meanwhile, the lure of higher salaries persuaded some of the best government attornies to defect to the grantees. Not surprisingly, the courts reversed over 35 percent of the commission's decisions.[9]

The Mexican claims were the well-spring of monopoly, according to Gates, but he also demonstrated that Congress had done little to reserve California's remaining public lands for bona-fide settlers. Long before passage of the Homestead Act (1862), early settlers in Florida and Oregon had been given a quarter or half section free as an inducement to settle there. California Senator William Gwin recommended that the same policy be followed in his state, but, given the flood of miners, Congress saw no need to provide special incentives.[10] It paid scant attention to California until after the Civil War, and federal agencies did little better. For example, although land surveys began in 1852, the General Land Office ran most of its early township and section lines in remote and desolate parts of the

---

Mexican grantees. Fremont claimed the infamous Mariposa grant, which had never been occupied, improved, or even located (all of which Mexican law required to perfect title). Fremont's claim was approved by the U.S. Supreme Court after the district court rejected it. Since it was the first case to reach the highest tribunal, it set an important precedent for the approval of other questionable claims. For the full story see Gates, "The Fremont-Jones Scramble for California Land Claims." Also see William E. Ellison, *A Self-Governing Dominion: California, 1849–1860* (Berkeley, 1950), 103–05.

9. Gates, "The California Land Act of 1851," 399; Gates, "California's Embattled Settlers," 102; Gates, "Pre-Henry George Land Warfare in California," 122–23.

10. Gates, "Adjudication of Spanish-Mexican Land Claims in California," 214–15, and "California Land Policy and its Historical Context: The Henry George Era," 8.

state, such as the Mojave Desert, and the Coachella, Imperial, and Owens valleys.[11] By 1861 only one-fifth to one-fourth of the state's land had been surveyed, little of which had any value. Consequently, most settlers squatted on or near Mexican grants or purchased land from the grantees.

In 1853 Congress opened all unsurveyed land outside the Mexican claims to preemption. However, simultaneously it granted California lieu lands to compensate for school sections contained within the Mexican grants. Subsequently, the state sold—in violation of federal land laws—lieu warrants that permitted purchasers to enter *unsurveyed* public land. It also allowed claimants under the 500,000-acre grant to locate on unsurveyed land.[12] Since California did not establish a land office until 1858 and left the onerous job of recording claims and collecting fees to its unusually large counties, two or more parties often demanded the same acreage—one filing in a federal land office, the other in a county. The records of the county surveyors generally were notoriously inaccurate and unreliable, and those officials, in company with the state surveyors general, speculated on a grand scale. To compound the problem, following the depression of 1857 President James Buchanan dumped 11,000,000 acres of California land—including some of the choicest tracts in the Sacramento and San Joaquin Valleys—onto the market to raise money to offset declining federal revenues. It sold for $1.25 an acre cash in unlimited quantities, or for depreciated military bounty warrants and other forms of scrip. But it remained off-limits to preemptioners and homesteaders even after 1862.

11. Gates, "California's Agricultural College Lands," 106–07. In the 1850s, most California farms were located in the coastal valleys, and most Mexican grants were within 30 miles of the Pacific. Since the grantees were responsible for surveying their own claims, and since the General Land Office did not want to waste money surveying *private* land, it began work in interior California.

12. The California legislature requested that the U. S. land offices withdraw all land sold by the state to prevent duplicate entries under federal law. The General Land Office refused because federal statutes permitted the states to select lieu lands only with the approval of the Secretary of the Interior and only on surveyed land. In other words, to comply with the legislature's request, land office officials would have had to tacitly accept California's illegal acts. Furthermore, they knew that the state was selling "swamp land" that was high and dry, in violation of the 1850 legislation granting flood lands to certain states. California defied and subverted federal land law in many ways, as other states had done before, and in 1866 Congress confirmed all entries previously made under state law, legal or not. In all, the federal government granted about 9 percent of California land to the state. School sections comprised two-thirds of the total and swamp or overflow sections another one-fourth. See Gates, "Public Land Disposal in California," 166–67; Gerald D. Nash, "The California State Land Office, 1858–1898," *The Huntington Library Quarterly* 27 (Aug. 1964): 347–56; and Nash, *State Government and Economic Development: A History of Administrative Policies in California, 1849–1933* (Berkeley, 1964), 126–28, 211; Ellison, *California and the Nation 1850–1869,* 52. On swamp land policy see Richard H. Peterson, "The Failure to Reclaim: California State Swamp Land Policy and the Sacramento Valley, 1850–1866," *Southern California Quarterly* 56 (Winter 1974): 45–60, and Robert Kelley, *Battling the Inland Sea: American Political Culture, Public Policy, & the Sacramento Valley, 1850–1986* (Berkeley, 1989).

Most of this land sold between 1867 and 1871, long after the financial crisis had passed.[13]

The state's best efforts to aid would-be small farmers failed; ironically, the only squatters whose claims received protection were those who held large tracts.[14] The 1851 law promised that all Spanish and Mexican grants rejected by the courts would become part of the public domain, and, as mentioned above, legislation adopted in 1853 subjected them to preemption. But the U.S. Supreme Court's 1862 rejection of the Suscol claim to an 84,000-acre block of rich land in Solano and Napa counties, north of San Francisco, changed that. The high court's decision touched off a land rush to Suscol. Squatters tore down fences, erected huts and shacks, and staked out farms in the hope of pre-empting a quarter-section. However, in 1863 a handful of San Francisco investors, who had purchased the land from the original grantee prior to the Supreme Court's decision, persuaded Congress to permit them to preempt as much land as they held in 1862 at the standard government price of $1.25 an acre. (Ten of them possessed more than 1,000 acres and one claimed 5,000).

Armed with the new law, these holders began evicting the 250 settlers who had taken up residence on the Suscol Rancho after the Supreme Court's decision. The preemptioners retaliated by destroying farm equipment and firing into the homes of the largest owners in the early months of 1863. However, not only did the decision stand, but in 1864 and 1866 Congress extended the Suscol principle to cover other tracts that had changed hands prior to their confirmation or rejection. The General Land Office and the courts interpreted these laws as permitting preemption claims as large as 5,000 acres *whether the land had been improved or not.* The homestead principle had been defeated again.[15]

Meanwhile, the Morrill Act of 1862 became another pillar of monopoly. According to Gates, cattlemen and speculators, aided by compliant judges and politicians, thwarted Congress's intention to encourage small farming, foster democracy, and promote the rapid settlement of the West. Lawmakers in Washington specified that agricultural college scrip could be used only to secure "offered land," and no individual could claim less

13. Gates, "Corporation Farming in California," 156–57; Gates, "California's Land Policy and its Historical Context," 14; Gates, "Public Land Disposal in California," 170–71; Gates, *Land Policies in Kern County,* 4–6.

14. Settlers who continuously occupied land and paid taxes for five years could acquire title through adverse use, *if* the legal owner failed to improve the land and let taxes fall into arrears. However, unlike other states, California did not require legal owners to reimburse rival claimants for their improvements following ejectment proceedings. See Gates, "Tenants of the Log Cabin," *Mississippi Valley Historical Review* 49 (June 1962): 3–31.

15. Gates, "The Suscol Principle, Preemption, and California Latifundia," and Gates, "Public Land Disposal in California," 169; Gates, "The California Land Act of 1851," 414.

than 160 acres or more than three sections within any township. But California officials ignored these restrictions. They permitted scrip-holders to file on newly surveyed land for 30 days *before it was opened to other claimants;* to acquire parcels of *unsurveyed* land as small as 40 acres; and to enter the double-minimum-priced sections within railroad land grants by paying an additional $1.25 an acre. As a result, the scrip sold for as much as five to eight dollars an acre and became enormously popular with large speculators.[16]

The best evidence of the failure of federal land policy, Gates concluded, was that from 1868–1873, when about 6,000,000 acres of public land were taken in California, Homestead entries covered only 809,621 acres. Land scrip secured about twice that amount and 3,315,458 acres were purchased.[17] By the 1870s, according to Gates, the concentration of ownership was much greater in California than in Ireland. Although California railroads acquired most of their 11,500,000-acre subsidy after 1870, and although the Desert Land Act (1877) and Timber and Stone Act (1878) also contributed to concentrated ownership, Gates considered the 1850s and 1860s as the critical decades.[18]

The implications of Gates work are vast. He demonstrated that by the 1870s and 1880s—long before the rise of "agribusiness" as we know it—California agriculture was characterized by giant "factories in the fields," by suitcase farming, by a large number of tenants, and by a rural "underclass" of seasonal workers. He showed how monopoly corrupted California politics and undermined respect for the law as well as for the courts and legislature. ("Long after the titles had been confirmed, the surveys finally accepted, and the patents issued," Gates poignantly noted, "squatters continued their battle for justice. Even the law, the courts, and the sheriffs could not persuade them to abandon their hopes. . . ."[19]) The whole society suffered. For example, owners of the state's 5,000,000 acres of improved rural land in the 1880s paid taxes at a rate eight or ten times greater than those who owned the 21,000,000 acres of unimproved land. Moreover, the small farmers who held 20 percent of the cultivated land paid 75 percent of the total taxes collected on agricultural real estate. County officials quickly learned that large landowners could paralyze county government by refusing to pay taxes, and the need for income often forced them to accept payments far lower than the rates provided by

16. Gates, "California's Agricultural College Lands"; Gates, "Public Land Disposal in California," 169; Gates, *Land Policies in Kern County,* pp. 6, 25.

17. Gates, "Public Land Disposal in California," 172.

18. Gates, "California's Land Policy and its Historical Context: The Henry George Era," 19; Gates, "The Suscol Principle, Preemption, and California Latifundia," 471.

19. Gates, "Pre-Henry George Land Warfare in California," 141.

law. The Constitution of 1879 promised equal assessment of land through a state board of equalization, but the power of county assessors and boards of supervisors remained substantial, and they were under the thumb of the monopolists. "California's tax structure for years penalized intensive development of land and made feasible continuation of large ownership," according to Gates. "Land-tax reform was one of the major objectives of the land-reform group but its political clout, though on the surface strong, was ineffective in the legislature."[20]

Gates was right, but his analysis contained two basic flaws: He did not devote enough attention to the nature of the California economy in the nineteenth century and he failed to recognize the impact of aridity on agriculture and landholdings.[21] California was, in Carey McWilliams' words, "the great exception." During the first two decades after statehood, it was isolated and suffered from a multitude of problems, ranging from the high cost of living to its image in the eastern press as a dusty desert plagued by outlaws and bad government. Its early economic development was far different from the agricultural states Gates had studied earlier in his career.[22] California's mining industry contributed to the growth of ports and supply towns, which concentrated capital and furnished miners and former miners with jobs during the off-season. The first generation of immigrants had plenty of alternatives to farming. Most had no intention of making the state a permanent home anyway; they would have rejected farming as an occupation even had cheap land been available. Speculators found it easy to engross large estates because most of the population was migratory, with no commitment to the land, and the legislature gave preference to the traditional California industry of stock-raising rather than farming.[23]

From the beginning the state relied heavily on exports: wheat and cattle

20. Gates, "Public Land Disposal in California," 177 (quote); Gates, "California's Land Policy and its Historical Context," 21; Gates, "Land Warfare in California," 142–43.

21. This is not to say that Gates lacked an understanding of California agriculture during its formative years. See his perceptive, brief monograph *California Ranchos and Farms, 1846–1862* (Madison, Wisc., 1967). However, he assumed that California's "land problem" was closely related to that experienced by other states, and, like his hero, Henry George, he never carefully defined "monopoly" or clearly identified the monopolists. In some places they appear as speculators, in others simply as large land owners—despite the fact that without irrigation a 5,000-acre ranch used for grazing in the Central Valley would support no more than 140 or 150 cattle.

22. See, for example, Gates' *Fifty Million Acres: Conflicts over Kansas Land Policy, 1854–1890* (Ithaca, N.Y., 1954).

23. The growth of agriculture was inhibited by an 1852 law which permitted farmers to claim crops damages to their crops from livestock owners *only* if those farmers had fenced their land. Enclosing land was enormously expensive in the 1850s and 1860s, before barbed wire offered a cheap alternative to plank and post fences. Only with the passage of "no fence" laws in the 1870s, the construction of railroads into the San Joaquin Valley, and the increasing use of irrigation, did farming begin to displace the grazing industry in the Central Valley.

during the 1860s and 1870s, as well as citrus fruit by the 1880s. Wheat farming was ideally suited to the rich, flat land of the Central Valley. It required little preparation of the land, little labor, and almost no experience on the part of the farmer himself—and no house, barn, or even a place for farm hands to sleep during the harvest. California's spring and winter rains, and its long, hot, dry summers, also made the cultivation of cereals attractive. Wheat was a crop that lent itself well to mechanization—such as the header, which came into use around 1860—and it promised immediate and substantial returns. (Those who raised more labor-intensive crops often had to wait years for the first returns on their money and labor.) Finally, squatters or renters could engage in wheat farming with relatively little capital and without making improvements that might later be lost to rival claimants. Nevertheless, profitable wheat farming and cattle ranching demanded large estates. Both industries were strong allies of monopoly.[24]

Neither land laws nor the nature of agriculture fully explain why monopoly flourished in California. Any explanation must look at what made the state unique. From the beginning, California's farms were tributary to its cities, not the reverse. Despite a dramatic decline in the number of miners during the 1860s, the percentage of farm workers increased only modestly—from 16 percent to 20 percent during that decade. Even more surprising, in the following ten years, after completion of the first "transcontinental" railroad in 1869 and during the years when the Southern Pacific built its line through the San Joaquin Valley, the rural populace continued to shrink in relation to the number of urban dwellers. Metropolitan counties consistently grew faster than rural counties. As early as 1860, a decade after statehood, 21 percent of California's people lived in communities of 2,500 or more. (Ten years after statehood in Ohio, only one percent of its people lived in towns larger than 2,500, and a decade after Illinois achieved statehood, that state did not contain a single community that large.) Until about 1880, California's population center was the city of San Francisco, which contained over 40 percent of the state's residents.

It is easy to forget—given California's spectacular *urban* growth in the

24. On the wheat industry in California see Gates, *California Ranchos and Farms, 1846–1862;* Rodman Paul, "The Beginnings of Agriculture in California: Innovation vs. Continuity," *California Historical Quarterly* 41 (Spring 1973): 16–27; Paul, "The Wheat Trade between California and the United Kingdom," *Mississippi Valley Historical Review* 45 (December 1958): 391–412; Osgood Hardy, "Agricultural Changes in California, 1860–1900," American Historical Association, Pacific Coast Branch, *Proceedings, 1929* (Eugene, Oreg., 1930), 216–30; and Donald J. Pisani, *From the Family Farm to Agribusiness: The Irrigation Crusade in California and the West* (Berkeley, 1984), 5–11 and 286–89. The production of wheat increased from 6,000,000 bushels in 1860 to 16,000,000 in 1870, and to 40,000,000 in 1890, in which year California ranked as the second-largest wheat producing state in the nation. Output peaked at 45,000,000 bushels in 1896, but quickly declined thereafter, largely because of international competition and soil exhaustion. In 1916 California produced only 4,000,000 bushels.

twentieth century—that from 1870 to 1890, eight of the arid West's eleven states and territories grew faster than the Golden State and during the 1890s nine did.[25] Even the population boom touched off by the Gold Rush had precedent. (Wisconsin had fewer than 30,000 residents in 1840, and more than 300,000 in 1850—figures similar to California's—and Minnesota's population grew by twenty-nine times during the 1850s.) The Golden State's numbers grew by 47 percent in the 1860s, by 54 percent in the 1870s, and by 40 percent in the 1880s, better than the national average. But those statistics did not match with the record of other new *agricultural* states. Kansas grew by 240 percent in the 1860s and by 173 percent in the following decade; Minnesota by 155 and 77 percent in the same two decades; and Nebraska by 355 and 270 percent. During the nineteenth century, California grew at a much slower rate than Ohio from 1800 to 1850, or Illinois from 1810 to 1860, or Iowa from 1840 to 1890.[26]

No sharp line can be drawn between the industries of country and city. We know little about the relationship of land speculation to banking—even though William Ralston's loans to land barons contributed to the Bank of California's collapse in 1875. (Isaac Friedlander owed the bank $500,000 and William Chapman $214,000; neither had provided any collateral.) Moreover, fraudulent titles and litigation became an added cost of doing business, contributing to high interest rates and San Francisco's large number of business failures. Gates noted that frightened squatters—many of whom were prominent businessmen—paid Jose Limantour from $100,000 to $300,000 before his claim to a large part of San Francisco was disallowed. And since there were at least 19 major private claims to parts of the city, along with the city's four league claim, the cost of uncertain titles must have been enormous. It seems likely that much of the violence in frontier California—the highwaymen, vigilantism, squatterism, and racial and ethnic conflict—resulted in part from what were perceived to be inequitable land policies. The absence of cheap land may also have hastened urbanization; miners flooded into cities in part because they had little access to the arable public lands.[27]

That said, the most important question is not why large landholdings were so common, but why they persisted. In other states stock-raising and

25. *Abstract of the Twelfth Census of the United States, 1900* (Washington, D.C., 1904), 35. Colorado grew by 387.5 percent in the 1870s, by 112.1 percent in the 1880s, and by 30.6 percent during the 1890s. During the same decades, Washington's population increased by 214, 365, and 45 percent, and Wyoming's by 128, 192, and 47.9 percent.

26. Warren S. Thompson, *Growth and Changes in California's Population* (Los Angeles, 1955), 11, 12, 13, 36, 41; Pisani, *From the Family Farm to Agribusiness,* 3, 299.

27. See Gates, "The Fremont-Jones Scramble for California Land Claims," 32; Arthur Maass and Raymond L. Anderson, *. . . and the Desert Shall Rejoice: Conflict, Growth, and Justice in Arid Environments* (Cambridge, Mass., 1978), 210–11.

wheat farming gave way to more diversified family farms as the population increased and land prices rose. The big difference in California was that in most parts of the state irrigation and water law ultimately reinforced early patterns of land tenure. Irrigation entered its "take-off" phase during the 1870s and 1880s, as investors turned their attention from mining to the fertile alluvial soil in the Central Valley.[28] Few businesses in the arid West offered the potential profits of reclaiming virgin desert land. The 1890 census estimated that the average price per acre of irrigated land nearly tripled during the 1880s. Moreover, while the cost of irrigating that land averaged about eight dollars an acre, the average per acre value of irrigated crops was nearly $15 an acre. The value of the water right alone was over three times the per acre cost of providing water.[29]

Irrigation had widespread appeal because it promised to protect large ranchers and grain farmers from drought at the same time it posed as the enemy of concentrated ownership.[30] Some social reformers argued that as the value of land increased, soaring taxes would force monopolists to sell out even if the lure of fat profits did not. Unfortunately, private companies could water land only by monopolizing it. They needed large blocks to facilitate the acquisition of canal rights-of-way and to place water rights on an equal footing. Otherwise, established settlers would appropriate any new supply of water without paying a cent, and conflicts would arise between pioneers and newcomers. Irrigation canals had to be built in *anticipation* of population, and a large supply of water had to be held in reserve for later use. Nominally, the doctrine of prior appropriation[31] re-

28. During the 1860s the state's miners fell from 83,000 to 36,000 while the number of farmers increased from 20,000 to 48,000. During the 1860s, the only large canal was the Moore Ditch that tapped Cache Creek in Yolo County. It was completed during the drought of 1864. Dry-farmed wheat remained the state's dominant crop during the 1870s, but irrigated land increased from 90,000 to 256,000 acres. See *Eighth Census of the United States, 1860* (Washington, D.C., 1864), 662, and *Ninth Census of the United States, 1870* (Washington, D.C., 1872), v. 3, 820; and *The Country Gentleman* 40 (November 4, 1875): 699–700.

29. "Census Figures on Irrigation," *Irrigation Age* 3 (November 1892): 193; *Thirteenth Annual Report of the United States Geological Survey [1891–1892]* (Washington, D.C., 1893), Part II, "Irrigation," 30–31.

30. Wheat farming was a risky business because the rainfall in many parts of the San Joaquin Valley left little margin between an "average" year and a drought. At least ten inches of rain well distributed throughout the winter and spring were needed to produce a good crop, and crops failed every second or third year. Initially, drought protection was far more important than the promise of growing higher value crops or subdividing large estates. Irrigation was considered a fertilizer, capable of restoring life to worn out or inferior soils, and it gave farmers greater control over their crops by allowing them to select the time of planting and harvesting. See the report on the state's first major irrigation convention in the *Daily Express* (Los Angeles), October 25, 1873.

31. This was the principle, well established in California by the end of the 1850s, that water could be turned from the natural channel of a stream so long as the diverter put it to good use. Prior appropriation became immensely popular in the West because it was based on a simple

stricted water users to "beneficial use," that is the amount of water actually needed to achieve an immediate objective. But large ditch projects took months or years to complete, and private water companies often encountered extortionist "paper claims" filed by individuals or rival companies. Such practices drove up the price of farms sold to bona-fide settlers and discouraged investors. Consequently, courts permitted claims to far more water than was immediately needed. This contributed greatly to land monopoly, because most land in the Central Valley or southern California had little value without water.

One example speaks volumes: the 400,000-acre empire of the Kern County Land and Water Company adjoining the town of Bakersfield at the south end of the San Joaquin Valley. In the 1870s James Ben-Ali Haggin, William Carr, and Lloyd Tevis, San Francisco capitalists, used a medley of land laws, including the Desert Land Act (1877), which was their creation, to secure most of the readily irrigable land in the valley. What they could not acquire from the state or the nation they purchased from the Southern Pacific Railroad. Professor Gates has shown how state and federal land policies contributed to the formation of this baronial domain,[32] but he neglected an equally important story: the promoters' efforts to secure control of the Kern River and other local water sources.

Hundreds of settlers streamed into Kern County in the early 1870s, anticipating the extension of the Southern Pacific line, which reached Bakersfield in mid-decade. One of the driest, most isolated parts of the state, Kern County still contained hundreds of thousands of acres of government land. By 1873, Haggin, Carr, and Tevis had completed six ditches covering 5,000 acres. They tried to buy up *all* existing water rights, but many farmers refused to sell. Consequently, they encouraged irrigators to incorporate their ditches and sell stock to outside investors. This would, they promised, increase land values and provide capital to improve, consolidate, and expand the existing delivery system. Small-fry speculators quickly took the bait, but regretted their lack of caution after the three entrepreneurs secured majority control in the Buena Vista, Pioneer, and Stine canals, among others. In 1875 the men claimed 3,000 cubic feet per second from the Kern River under the doctrine of prior appropriation,

---

principle and required no expensive bureaucracy to administer. The first to use water, if that use was "continuous," held the paramount right. The courts ranked remaining rights on a stream according to chronology. However, California also recognized riparian rights to parcels of public land patented before 1866. These traditional rights were part of the title to land adjoining streams and lakes. They were independent of time or use. In theory, any individual riparian could demand the full flow of a stream by his land.

32. Gates, *Land Policies in Kern County* (Bakersfield, 1978); Gates, "Corporation Farming in California," 162–69; Gates "Public Land Disposal in California," 172, 174.

about three times more water than the stream had ever carried. Then they formed the Kern County Land and Water Company and began to build new canals, including the Kern Island and Calloway canals. By 1878, Carr, Haggin, and Tevis controlled all the county's major ditches.

The Kern County Land and Water Company used a variety of tactics to intimidate "uncooperative" farmers. It cut off water or provided shoddy service. It filed over 100 suits challenging the water rights of those who refused to sell out to the company. And because it enjoyed great political influence within Kern County, the company pressured local officials—including sheriffs, county judges, and tax assessors—to help secure its objectives.[33] In January 1878 after the Bakersfield Grange bitterly protested to the legislature that the Kern County Land and Water Company wasted water and discriminated against farmers who challenged company policies, the *San Francisco Chronicle* recommended that the legislature reform prior appropriation because the company had forced "poor men to sell their lands at a low price, or failing in this . . . freeze out or dry out all those who may have the temerity to wish to hold on to the homes acquired after years of toil and hardship. . . ."[34]

The Kern County Land and Water Company's ultimate objectives remain a mystery. Haggin insisted that he was a public benefactor. "My object has not been, nor do I wish to monopolize large bodies of land," he proclaimed in 1880, "but I desire to make valuable and available that which I have by extending irrigation ditches over my lands, and when these lands are subject to irrigation to divide them up and sell them . . . in small tracts with the water rights necessary to irrigation."[35] He explained that after 1877 he did little to improve the land or to lure new settlers into Kern County because the drought of that year touched off a storm of litigation—including the famous case of *Lux* v. *Haggin.*[36] If the supreme court limited or redefined prior appropriation in California, and Haggin

33. Margaret Aseman Cooper Zonlight, *Land, Water and Settlement in Kern County, California, 1850–1890* (New York, 1979), 143, 174–75, 297–98, 300; John S. Hittell, *Commerce and Industries of the Pacific Coast* (San Francisco, 1882), 406; *Transactions of the California State Agricultural Society, 1900* (Sacramento, 1901), 89–95; *Fresno Weekly Expositor* (Fresno, Calif.), December 29, 1875.

34. *San Francisco Chronicle,* January 29, 1878.

35. *Bakersfield Californian,* May 20, 1880.

36. *Lux* v. *Haggin,* 69 Cal. 255 (1886). In 1877, diversions through the Kern County Land Company's canals resulted in the death of 10,000 cattle pastured downstream in the Buena Vista Slough, between Bakersfield and Tulare Lake, on land owned by the cattle company of Miller & Lux. Miller & Lux requested that upstream water users permit one-fourth of the stream to reach their lands. Haggin and his associates refused, setting the stage for a protracted court battle not decided until 1886. Ultimately, the California Supreme Court ruled that the riparian rights held by Miller & Lux took precedence over the appropriative claims of Haggin, Tevis, and Carr. The two sides reached an out-of-court accomodation in 1888. See Pisani, *From the Family Farm to Agribusiness,* 191–249, especially p. 243.

claimed his water under prior appropriation, the value of his property would plummet.

Many bona-fide settlers regarded this argument as subterfuge. They charged that Haggin, Tevis, and Carr had used the irrigation issue as a ruse to win public support in the battle to overturn riparian rights in California and to crush the rival livestock company of Miller & Lux. The trio wanted to do everything possible to appear "pro-settler" and to enlist "friendly" judges and juries in the cause. By opposing riparian rights, they appeared to be antimonopoly. In reality, they were just monopolists of another kind. The Kern County Land Company's holdings were part of 1,400,000 acres the cattlemen owned in Arizona, New Mexico, and California. The company needed alfalfa for its stock, but water rights acquired under the doctrine of prior appropriation required that the water be diverted continuously, on pain of forfeiture. (Private companies could not "stockpile" water for future use.) If the Kern County Land and Water Company had sold its land outright, water rights would have vested with the freeholders, reducing the company's water supply along with its political clout. By leasing, the company maintained control over both water and land.[37] It made no serious effort to subdivide its vast holdings until the 1890s, *after* the California Supreme Court had affirmed the primacy of riparian rights in Kern County. Population statistics tell a grim story. While the county's population more than doubled from 1870 to 1877, between 1878 and 1886 dozens of families fled and the number of children in the county dropped from 649 in 1879 to 246 in 1886. They were replaced by single male renters and leaseholders.[38]

In Kern County irrigation served as the ally of monopoly. Elsewhere, at least for a time, irrigation led to the break-up of large estates, as critics of wheat farming had hoped. Gates did not pay sufficient attention to the diversity of California farms in the nineteenth century. Taken as a group, irrigated holdings larger than 160 acres averaged 547 acres in 1890—even bigger than irrigated ranches in such grazing states as Nevada and Wyoming. Nevertheless, the average irrigated farm under 160 acres numbered only 30 acres, smaller than those in all western states and territories save Utah.[39]

Fresno County's experience underscored the difference. Irrigation

37. Most of the leases were for five years. The company charged nothing during the first year, but thereafter lessees had to buy the water they used and turn over 25 percent of their annual crop. *Bakersfield Californian,* March 1 and May 3, 1877, and March 19, 1881.

38. Zonlight, *Land, Water and Settlement in Kern County California, 1850–1890,* 174–75, 259, 316.

39. F. H. Newell, *Report on Agriculture by Irrigation in the Western Part of the United States at the Eleventh Census, 1890* (Washington, D.C., 1894), vii, 2, 3, 6, 10, 33, 90; *Abstract of the Twelfth Census of the United States, 1900* (Washington, D.C., 1904), 234.

evolved very differently along that county's Kings River than it did in the Kern Valley, one hundred miles to the south. During the 1890s, as irrigated land in Kern County decreased from 154,549 acres to 112,533 acres, irrigated land in Fresno County nearly tripled, expanding from 105,665 acres to 283,737 acres.[40] During the 1860s, before Fresno existed and before the alternate sections were granted to the Southern Pacific, speculators acquired huge, unbroken chunks of the public domain.[41] This dramatically reduced the cost of purchasing and developing the land. So did the method of settlement. The Fresno speculators tried to attract *groups of colonists* rather than individuals or families. They formed companies that competed for buyers by offering plenty of inducements, such as putting out vines and supplying expert agricultural advice to former urbanites who lacked agricultural experience. They also planted shade trees, built roads, set up dairies, and sold the land on credit. Colonies provided instant communities. They also insured that settlements would be compact and efficient. The sale of land in large units to groups of settlers, rather than in individual farms over several years or more, reduced advertising costs, commissions paid to salesmen, and interest charges. (These "overhead" expenses constituted about half of the cost of irrigating virgin land.) The first colony was established south of Fresno in 1875, and a decade later 21 colonies covered 45,000 acres. They provided homes for 1,500 families, about 7,500 people, and served as one of the few examples of successful planned agricultural development in the nineteenth-century American West.[42]

Fresno was located between the Kings and San Joaquin rivers, and it usually received plenty of water. The Kings carried two or three times more water than the Kern during summer months, when the latter often ran dry, and Fresno received almost twice as much annual rainfall, on the

40. William Preston, *Vanishing Landscapes: Land and Life in the Tulare Lake Basin* (Berkeley, 1981), 97.

41. In 1868, four years before the Southern Pacific reached Fresno, William Chapman and Isaac Friedlander, two of the largest speculators in San Joaquin Valley land, persuaded a group of San Francisco capitalists to purchase agricultural college scrip and use it to claim an 80,000 acre block of land. This was done *before* any substantial number of settlers had entered the Kings River Basin. By locating the parcel upstream, the promoters headed off many of the water conflicts that occurred on the Kern. Maass and Anderson, *. . . and the Desert Shall Rejoice,* 157–58.

42. On the Fresno colonies see Virginia E. Thickens, "Pioneer Colonies of Fresno County" (M.A. thesis, University of California, Berkeley, 1939); Thickens, "Pioneer Agricultural Colonies of Fresno County," *California Historical Quarterly* 25 (March and June 1946), 17–38, 169–77; Paul Vandor, *History of Fresno County California* (Los Angeles, 1919), 262–65; Maass and Anderson, *. . . and the Desert Shall Rejoice,* 157–69; Pisani, *From the Family Farm to Agribusiness,* 122–24.

average, than Bakersfield.[43] These were substantial natural advantages. During the 70s, courts in Fresno and adjoining counties issued many injunctions to protect riparian owners downstream in the Mussel Slough section of the Kings River from the increasing number of diversions upstream around Fresno. However, most appropriators simply ignored the court orders. The stream rarely dried up completely, and the riparian owners realized that angry diverters would defy any injunction. Compromise promised the only solution. Many sold their riparian rights to upstream interests, as California courts abandoned the timeless principle that such rights were inalienable and appurtenant to the land. Kings River developers recognized the hopelessness of litigation, so the conflict between prior appropriation and riparian rights did not limit agricultural development there as it did elsewhere in the San Joaquin Valley. As E.B. Perrin, one of the principle speculators and irrigation promoters in the Fresno region commented: "The news soon spread all over the country that the water for the Fresno colonies was the most secure and plentiful in the State, and this created the biggest land boom in Fresno County." The companies were able to sell water at very cheap rates. They still faced suits by downstream appropriators, but none of those claims were open-ended like the riparian rights claimed by Miller and Lux in Kern County. As Arthur Maass and Raymond Anderson have shown so well, Kern County would have been far better off had it attracted the same species of speculator which flourished in Fresno County.[44]

The history of Los Angeles, no less than Fresno, demonstrated that small farms thrived only where an adequate water supply had been reserved.[45] However, Fresno and Los Angeles were not typical. During the 1870s, many critics of land monopoly maintained that large holdings would be broken up only when the state condemned and extinguished all private water claims

43. William L. Kahrl, ed., *The California Water Atlas* (Sacramento, 1978), 5, 8. The larger supply of water permitted Fresno farmers to cultivate such thirsty, high-value crops as grapes and cotton, rather than the alfalfa raised around Bakersfield. Consequently, irrigation was much more affordable in the Fresno region.

44. Maass and Anderson, . . . *and the Desert Shall Rejoice,* 161–63 (quote p. 162) and 236. It is important to note that in Fresno County, where many irrigated farms were 20 acres, large scale wheat farming and ranching survived to the end of the century. For example, from 1875 to 1890, the number of landowners with 5,000 acres or more declined only from 44 to 41, and those 41 held 943,557 acres, about 100,000 *more* than the 44 claimed in 1875. See ibid., p. 289.

45. The pueblo of Los Angeles contained about 18,000 acres at the time of statehood. The Mexican government granted it absolute title to the Los Angeles River. In 1873 the state legislature confirmed the city's exclusive control over the stream from its headwaters to the point at which it left the city limits. In 1877, the river watered 9,000-10,000 acres in and adjoining the city, about half within the city limits. However, the city's rapid growth following completion of the Southern Pacific line into town in 1876, led to the subdivision and sale of the town farms. See Pisani, *From the Family Farm to Agribusiness,* 40, 44–45.

and leased or rented the water itself. In October 1873 California's leading agricultural periodical, the *Pacific Rural Press,* concluded:

> The people have of late been everywhere so mercilessly plucked by corporations that there is a universal distrust of associated capital, and an effort will be made to keep all the water possible in the hands of the State, and away from monopolists. All these corporations want the people or the Government to give them something for nothing, in order that they may sell it back shortly after to the people at an immense profit. Millions of acres of lands have come into the possession of certain companies on this principle, which the people have lately come to the conclusion is a wrong one. . . . The common opinion prevails that the State should own, or at least control these canals. That there should be a comprehensive system of irrigation, which would be applicable to the whole [San Joaquin] valley, not to a particular section. That at all events the farmers should not get their water from any corporation whatever, which may, if it chooses, discriminate between certain persons, or by sharp practices, get possession of the land. The evil of having a number of companies competing on adjacent lands, each with an independent system, has been shown up in older countries.[46]

Nevertheless, if the hostility to "associated capital" was strong, so was the fear of government. Neither riparian rights nor prior appropriation required close supervision by public officials. In effect, these two legal documents assigned the cost of resolving disputes to the courts, where the water users themselves paid the price of uncertainty, rather than to a state bureaucracy, where water rights could be treated as matters of concern to all Californians. Among the arguments used against a comprehensive state water system and state administrative control over water rights was that the massive appropriations would build up corrupt political "rings," that government was inherently wasteful and inefficient (much unnecessary work would be done), that some sections would be taxed to pay for improvements in others, and that hydraulic miners would use state irrigation works as a justification for massive new state aid to the moribund hydraulic mining industry.[47]

The pervasive suspicion of large institutions, public or private, and the incapacity of the courts to plan or to govern, left one last weapon against water monopoly, the irrigation district. Beginning in the early 1870s, the California Grange sponsored legislation which encouraged farmers to

46. *Pacific Rural Press* 6 (October 11, 1873): 232.

47. See, for example, Governor Newton Booth's speech to the California Grange at San Jose, as reported in the *Pacific Rural Press* 6 (November 1, 1873): 278, and the *Sacramento Daily Record-Union,* October 30, 1875.

pool money to build irrigation works and maintain local control over water. In this way, it was hoped, agriculture could avoid overreliance on either private water companies or the state. In 1876 the legislature approved two bills to create limited districts within the San Joaquin Valley, but the courts emasculated the new statutes because they sought to tax *all* district residents, stockmen and town-dwellers as well as farmers. Not until 1887, after the California Supreme Court proclaimed irrigation a "public use" of water in *Lux* v. *Haggin* (1886), paving the way for the condemnation of private dams, ditches, and water rights by public corporations, did the legislature enact a *comprehensive* district law.[48]

The Wright Act of 1887 was prompted not just by the triumph of riparian rights in 1886, but by the rapid expansion of irrigation during the 1880s, which resulted in new demands on almost all the state's unclaimed water. The law empowered locally elected boards of directors to purchase or condemn water rights, draft plans for delivery systems, supervise construction, and monitor distribution. No water rights were absolute because the water supply belonged to the district itself, not to individual farmers. Water was allocated according to the value of each tract of land in relation to the total assessed value of district property. Not surprisingly, the *San Francisco Chronicle* predicted that "[w]hatever may be the defects of the Wright bill, it will have the effect of shutting off all schemes for the wholesale seizure of the running water of the State under any claim of law whatever. If it will accomplish this, as it will do, it will preserve the water for the use of those who need it. . . . The Wright bill is all that stands between the rich water monopolist and the poor farmer." Farmers, it hoped, could look forward to the end of costly and protracted litigation.[49]

The Wright Act promised many other benefits: coordinated, efficient water systems in place of the wasteful works constructed by private enterprise; the distribution of water at cost, with no discrimination among users; and home rule. But the most important benefit was indirect: by driving up taxes on unimproved land held by speculators, wheat farmers, and stock growers, the law would encourage the sale of land to small farmers. Land monopoly would die a natural death not at the hands of the state, but as a result of evolutionary market forces.

Unfortunately, this legal weapon proved ineffective. In the eight years following 1887, 49 irrigation districts covering 2,000,000 acres were organized under the Wright Act—about 2 percent of the entire surface of the state. However, opposition from large landholders—mainly wheat farmers in the Sacramento Valley and stockmen in the San Joaquin—proved

48. Pisani, *From the Family Farm to Agribusiness,* 129–53.
49. *San Francisco Chronicle,* January 17, 1887.

fatal. Their main objection was well-expressed in a letter written by a Sacramento Valley resident to a Colusa newspaper:

> That the irrigation law is a blow aimed directly at large land holders is as apparent as a nose on the face. In Colusa county there could not be formed an irrigation district of any considerable dimensions without including one or more small burghs or towns. Now what we want to know is this. Is it right for the many men of small holdings who generally hang around those little villages and the men with no holdings at all except a cigarette holder, to waltz up to the polls on election day, and cast their vote, and thereby become the dictator to the man with his thousands of acres of land? There is only one way to construe the matter. It places the whole army of men with small holdings, the laborer, the tramps and the paupers on one side and the landlords with their thousands of acres on the other. And the former say to the latter, 'we will build an irrigation ditch here or there as we please and we'll make you foot the bills.'[50]

Large landowners challenged virtually every feature of the Wright Act in court, from the process of organization to the issuance of bonds. And while the U.S. Supreme Court upheld the legality of districts in 1896,[51] the pall of litigation, bad management, and speculation that hung over most of these quasi-public entities limited bond sales. As of 1910, only 174,000 acres within the original districts were irrigated—about five percent of the irrigated land in the state. Ironically, when the irrigation district was revived, during the second decade of the twentieth century, it became the ally of agribusiness rather than the family farm. The Kern County model had triumphed.[52]

Irrigation agriculture did not expand as rapidly in nineteenth-century California as in arid states with far less potential, such as Utah and Colorado. The century ended with a severe drought, and prominent northern Californians appealed to the U. S. Department of Agriculture to conduct a survey of water rights in California. "Great sums have been lost in irrigation enterprises," the petitioners warned. "Still greater sums are endangered. Water titles are uncertain. The litigation is appalling."[53] San Francisco bankers, realtors, investors, and manufacturers were particularly concerned. Some held the bonds of defunct irrigation districts and others owned heav-

50. *Weekly Colusa Sun* (Colusa, Calif.), October 29, 1887.

51. *Fallbrook Irrigation District* v. *Bradley,* 164 U.S. 112 (1896).

52. For an overview of the Wright Act see Pisani, *From the Family Farm to Agribusiness,* 250–82.

53. *Report of Irrigation Investigations in California,* U.S.D.A. Office of Experiment Stations, Bulletin 100, 57 Cong., 1 sess., 1902, S. Doc. 356, p. 22.

ily mortgaged land in the Sacramento Valley, in many parts of which the rural population sharply declined in the 1890s along with the price of wheat. All were keenly aware that the tide of immigration to northern California that had given that portion of the state its political and economic preeminence in the nineteenth century had receded. If San Francisco was to survive as the queen city of the West, something had to be done to stimulate small farming in the Central Valley.

Elwood Mead, head of the Office of Irrigation Investigations in the Department of Agriculture, conducted the survey. He concluded that the insecurity of water claims had seriously impeded the growth of small farming in California:

> There are few places in the world where rural life has the attractions or possibilities which go with the irrigated home in California, yet immigration [to California] is almost at a standstill and population in some of the farmed districts has decreased in the past ten years. It is certain that some potent but not natural cause is responsible for this, and this cause seems to be a lack of certainty or stability in water rights which has given an added hazard to ditch building and been a prolific source of litigation and neighborhood ill feeling. Farmers who desire to avoid the courts and live on terms of peace and concord with their neighbors avoid districts where these conditions prevail.[54]

For Mead the question of who owned the land or built the irrigation works was far less important than who owned the water. The two most glaring weaknesses in western water law, he believed, were the failure to attach rights to the land irrigated—titles to water could be bought and sold like any commodity, hence they could "float" from one part of a river basin to another—and the state's lack of administrative control over the remaining, "surplus" water. For example, each of six individuals or corporations had claimed the *entire* San Joaquin River, and the remaining claims to that stream—many of which had never been filed with county recorders—constituted eight times its greatest volume and 172 times its average flow.[55] Not surprisingly, water law reform was high on the agenda of the California Progressives.[56]

Technology permitted irrigation to expand dramatically in the early decades of the twentieth century despite the concentrated ownership in

54. Ibid, 19.
55. Ibid., 170, 190, 195, 232.
56. Donald J. Pisani, "Water Law Reform in California, 1900–1913," *Agricultural History* 54 (April 1980): 295–317; Pisani, *From the Family Farm to Agribusiness,* 335–80.

land and water.[57] Conservation, including lining canals with concrete and improving irrigation techniques, made the existing supply go further. Moreover, dams captured previously unclaimed "flood water" wasted when the snow melted in the spring, and new steam and gasoline pumps began to tap the vast supply of water under the floor of the San Joaquin Valley. Irrigation promoters were much more successful at expanding the existing supply than in eliminating monopolistic claims. Irrigated land returned enormous profits per acre, but only to those capable of paying far more for improved land than in the East or South. The average California farm tripled in value from 1900 to 1920, and unimproved land more than quadrupled during the same period.[58] A quarter-section of land "under ditch" cost as much as $10,000 to $15,000 in southern California, and the cost of irrigating virgin land soared as the size of dams and canals expanded to serve land ever further from water. The outlay for irrigation, added to the many other expenses of getting started in agriculture, pushed the price of an 80- or 160-acre farm far beyond the means of most small farmers or urban workers. California reformers tried valiantly to reproduce familiar patterns of landownership that prevailed in the Midwest and New England. Their task was hopeless. In patterns of agriculture as in so many other ways, the Golden State would remain exceptional.

This essay can only begin to suggest the ways irrigation affected patterns of land tenure in California and, by implication, other states in the arid West. It is not meant to be definitive. But it points to one major conclusion. Even though the percentage of land irrigated in the nineteenth-century West was small compared to today, and even though the nature and impact of irrigation varied from county to county and state to state, in California it was destined to become a firm ally of monopoly and agribusiness. Historians must not discount the impact of the land laws Professor Gates explained so well, but water laws were no less important. Gates was wrong to suggest that monopoly had become a permanent feature of California agricultural life by the 1870s. In the years from 1870 to 1920, many champions of irrigation hoped to use that new institution to break up large holdings and

57. Statistics can be deceiving. The size of California's farms declined from 1900 through the 1920s. For example, Tulare County farms shrank from an average 460 acres in 1900 to 242 acres in 1910 to 159 acres in 1925. However, this occurred mainly because the huge wheat farms so characteristic in the 1870s and 1880s were subdivided during the early decades of the twentieth century. See Preston, *Vanishing Landscapes: Land and Life in the Tulare Lake Basin,* 170, 200; *United States Census of Agriculture: 1935* (Washington, D.C., 1936), v. 1, 944–47.

58. Frank Beach, "The Economic Transformation of California, 1900–1920: The Effects of the Westward Movement on California's Growth and Development in the Progressive Period" (Ph.D. diss., University of California, Berkeley, 1963), 106. These statistics must be used carefully. Although California farmland increased dramatically in value during the first two decades of the twentieth century, prices advanced most rapidly during World War I—as they did throughout the nation—and in most parts of the state slumped badly during the 1920s.

produce stable agricultural communities. They were no less important than Henry George and others who wanted to tax unimproved land at higher rates or place limitations on the amount of land that individuals and corporations could own. In the far West, the failure of the Wright Act—which was widely copied in the arid region—to achieve its original objectives was even more important than the failure of the Homestead Act. It became the servant of the very monopolists it was designed to destroy.