

OUTLINE, AND ROUGH DRAFT

Economic Development as Response to Stress

(Evidence from California, 1846-1991)

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Proposed paper is a case study drawn from a broader, book-length thesis, applied to the world economy, that the stress of warfare stimulates development. A corollary is that "peace dividends," releasing stress, often lead either to stagnation or, in dynamic economies, to boom-slump cycles, e.g., 1713-1720, 1815-1819, 1865-73, and 1918-29. Prosperity, free of international stress, seems to lead to crash, slump, and/or stagnation. This is not wishful thinking, obviously, for most of us would wish it otherwise. I certainly would. The thesis springs from observation through time, arrived at grudgingly.

Another corollary thesis is that warfare (hot or cold) promotes egalitarian institutions. Peace dividends, by the same token, are not equally shared. They are mostly captured by rent-takers, partly by market action premised on property entitlements, partly by political actions that "hasten history along." The results are socially divisive, and also often destabilizing economically, as in the dates noted above.

The mechanism of boom and slump is mooted, but there is a working hypothesis here. It is that the cycle results from a sequence of sellers' overpricing land, which in turn shapes investment in peculiar ways to a) substitute capital for overpriced land; b) "enhance" land, i.e., convert it to higher uses; c) link lands, as by extending rails and highways; and d) capture new lands (rent-seeking). All of those absorb capital at slow rates of payback, leading to capital shortage and a slump.

A number of sub-theses are invoked or developed, too, as noted below.

The present paper surveys California history in terms of those hypotheses, with special reference to the role of water development. This is not alleged to be always dominant; it is used as a unifying theme, and for local reference.

Early History

Long history of irrigation by Indians, Spaniards, Mexicans, Mormons, briefly referenced. 1823, independence from Spain. 1834-37, missions secularized, opening door to secular grants. 1837-46, secular grants, becomes cattle country.

Boom, 1846-1857

1. 1848, Guadalupe-Hidalgo, U.S. acquires, recognizes old grants (subject to verification, which opened door for extensive legalistic chicanery). Russians and Mormons

withdraw (Deseret still an independent nation, or thought it was).

2. 1849-, gold and water, lure of untenured commons. Psychological effect on attitudes to property. Population rises from 15,000 to 93,000, 1848-1850. That is a *phenomenal* rate of increase, doubtless accounted for excessive speculative land pricing that characterized the state for the next several decades.
3. Temper of "Roaring Forties": imperialism; expansionism; stimulus of war; egalitarianism of war; optimism from easy victories, vast land acquisitions.
4. Rising demand for grain. 1846, English repeal of corn laws. 1853, French free trade in grain. 1846, Irish famine. (Chase-Nunn traces fall of tariffs, 1846-1861. Grain exporters ally with cotton exporters for free trade during period of strong world demand for grain, turn backs on Henry Clay.)
5. Low tariff period, generally. Would keep down value of dollar, help exports.
6. West Coast at this time was the next logical step in westward expansion, owing to ocean transport, defensive strength of mounted Indians in High Plains buffalo country, free-slave guerrilla fighting on High Plains (Bleeding Kansas), deferred extension of railroads there. This logical economic progression is hidden by superficial geography as seen from the Midwest, emphasizing overland transport, underestimating Indian strength as perceived at that time.
7. Preemption Act (squatters' rights), from 1841, applied to California from its origins. (Need data on lands thus patented.)
8. 1850, statehood.
9. 1853, Congress authorizes survey of railroad route. California benefits from imperialistic motive at federal level.
10. 1854, squatter sovereignty. Effect on California?
11. Sepoy Rebellion, Crimean War, divert Europeans from contesting west. Also raise European demand for grains, cattle, wool.
12. Anglicizing Spanish land grants. Helps establish:
 - a. Tradition of chicane.
 - b. Land monopoly.
13. Irish migration, especially to San Francisco. Psychology of hostility to land monopoly: seeds of future alliance with grangers.
14. Know-nothingism keeps down Irish labor. Property on top of class war. Smooth sailing, cloudless skies, a fair wind, leading to:

Crash, 1857-1861

1. All external conditions were favorable for California. No external threats to region or nation. Prospect of federally subsidized transcontinental rails. Prospect of oriental trade. Strong demand for exports. Large prospective immigration at hand, from east, Europe, and Orient. Credit good.
2. World economy crashes. Loans dry up. California depended on world capital market, from early times.
3. Foreclosures accelerate Anglicization of Spanish grants.
4. President Buchanan dumps vast federal lands on market, for cash sales. (He needed cash not in the absolute, but to avoid raising tariff.) High share of these lands were in California.

These were cash sales: did not go directly to settlers. Reinforced tendency to monopoly. (Sales not brisk, owing to crash. Check Cole data. Federal sales always drop like a stone in crash, because prices are rigid in face of falling demand.)

5. 1857, Germans from San Francisco found Anaheim, an irrigation colony with vineyards. Just an incident, ahead of its time.

Civil War, 1861-1865

1. Taxes rise: property (local, state, and, for a brief time during war, national); tariff, and probably excises; income tax; inflation-cum-income tax, a general tax on wealth.
2. Wage rates rise; labor-price of land falls.
3. Protectionism takes over semi-permanently, until 1913. Reduces demand for farm exports. Probably encourages industry in San Francisco, which had some one-third the population; but slows commercial development of it and all international ports. Chicago and the Heartland were promoted.

Major effect on land policy: never again any need to sell federal lands for revenue. Set stage for Homestead Act.

4. Egalitarian overspill from warring Eastern states: Homestead Act, 1862. (Morrill Act, too.) Gradually planted enough future grangers around to affect future politico-economic climate.

1862, California is one of the few places left where good land remained to homestead?

5. Psychological effect of Emancipation, 1863, a "Huck Finn Effect"; erodes totemic sanctity of "private property": a time bomb, effects seen later in radical climacteric of 1875-1886, Populism, and finally Progressivism and national power.
6. Local railroad building (data needed: see Olmstead-Wischemann debate).
7. 1864, Union Pacific/Central Pacific receive special credits from Congress, even in midst of war finance. Subsidy to railroad is subsidy to California, raises prospects. (Seeds planted for Creeds Mobilier scandal.)
8. California gets lots of breaks: minimum burden of war, generous benefits, romantic image of golden state. Developmental response, however, is meager.

Gilded Age, 1865-1873

1. California population grows much slower than rival states of Mississippi valley, 1860-1880, in spite of brilliant prospects, and logical next place in sequence of westward expansion (cf. "Boom," point 5).
2. Sub-thesis: California is likened to Hudson Valley, with its anti-developmental patroon system. High degree of land monopoly, owners dedicated to extensive, land-using, labor-slighting ranch and grain farming. Pampered by federal policy, little need to develop its own resources, tax system, or local infrastructure. No debts, no public works.
3. California shares boom mainly in land speculation (Gates, 1978). Land prices soar. Did become big wheat exporter by 1870 (but wheat is labor-slighting).
4. At national level, sharp reversal in class war, from ideals of George Julian to machinations of Jay Cooke (the Charles Keating/Mike Milken/Ivan Boesky of his day).
5. Railroad grants, big four, robber barons, etc. Even so, rail mileage develops slower than in East or Midwest.

SP begins in small way with local and feeder lines, 1865.

1869, Golden Spike.

(Western Union monopoly irks journalists.)
6. 1868, Burlingame Treaty, unrestricted Chinese immigration, little protest.
7. National level, peace dividend. No rivals. France driven from Mexico; Britain no longer a threat because Canada is a permanent hostage. Russians withdraw from Alaska, 1867. The world is our oyster, waiting to be shucked.

8. Land disposal is corrupt. To call it merely "scandal" trivializes the corruption. It was systematic looting: Congress, the legislature, the civil service were for sale. Swampland acquisitions of Henry Miller symbolize the process. Railroad land grants, far in excess of what roads needed for building.

Possibly the earlier pattern of land monopoly is what gave some parties differential power to exploit weakly guarded land sales system. Probably the dominant northeastern establishment was looking to build a conservatively dominated polity here, as it did in the Southeast. This period seals the patron pattern.

9. 1871, H. George of San Francisco/Sacramento published *Our Land and Land Policy*. Psychological effect of corrupt disposal was to weaken respect for property in land, even at crest of boom. Presages burst of leveling radicalism that later led to Populist and then Progressive reform movements.

George was a product of his time and place: his friend McClatchy of *The Bee* was nurtured in the same matrix. So was Mark Twain, another San Francisco journalist of the times, who gave *The Gilded Age* its name in 1873.

10. 1871, end of era of national support for railroads. Disillusionment with performance of private buccaneers. Plants seeds for coming era of municipal enterprise.
11. 1871-1873, peak of homesteading in California. Even at peak, did not match cash sales and grants, but planted future voting grangers.
12. 1872, defeat of Horace Greeley seals end of free-soil Republicans, Reconstruction, Radicalism, idealism. Loss of national power turns levelers to state, local action.
(Anomaly of Anthony Comstock persecuting personal peccadilloes in support of Gilded Age establishment—an early version of Billy Graham-cum-DEA?)
13. A few ethnic, religious, and utopian colonies. Any overall importance? Patterson, Atascadero, Anaheim, Solvang, Reedley, San Bernardino, at various dates. Always an element, fermenting the brew: Modesto's civic motto ("Water, Wealth, Contentment and Health") shows the utopian influence, nicely blended with land peddling.
14. 1873, citrus introduced in Riverside (just in time for major collapse).
15. By 1873, property had won the class war, allied with southeastern property, created California landed establishment, was ready to settle back comfortably and take rents. No clouds on their horizon.

Next slide, please:

Crash, 1873-1880

1. 1873, Jay Cooke fails; credit dries up.

2. Demand for land dries up; sales plummet.
 - a. 1875, Luther Burbank comes to Sonoma Valley.
3. 1875, tariff hike. (Sub-thesis: tariff hikes follow major crashes, perhaps in effort to keep scarce capital at home.)
4. Sandlot Party of Denis Kearney burgeons. Radicalism of Irish turns to racism. Heavy weight of San Francisco in state politics. Sandlotters make common cause with grangers. Land reformers like George and McClatchy dabble with Sandlotters, but repudiate bigotry, disown Kearney, dividing radicals.
5. 1875, Social Gospel Movement arises in churches, challenges Comstockery as basis of churches. Mark Twain mocks petty morality, wins following. (Remarkable parallels and synchronization in careers and attitudes of Twain and George, reflect changing times—worth a footnote or more.) Cf. basic theme of the popular *Pollyanna*, 1913: mocks Comstockery, promotes social gospel ideas.
6. 1876, stolen election of Hayes, feeds mood of dark disillusionment with federal government, so reformers, in rebellious mood, turn to state and local government. End of docility is imminent.
7. 1877, Desert Land Act, shows Congressional intent to rev up patroon class, convert it to a more enterprising Junker class. Nice try, but no cigar this time.
Lasting effect: Feds quitclaimed riparian rights on public lands.
8. Worldwide grain depression, only briefly relieved by Russo-Turkish war, 1877-1878. Led to Populism; also reinforced tariff party: Clay's American system without the federal public works, not much there for western farmers.
 - a. 1878, H. Miller builds dual purpose canals, Mendota-Orestimba. Also, Buena Vista. (Thus, west side of San Joaquin Valley had irrigation from early date; the land just never developed much under patroons.)

Counties were considered a radical innovation, and optional. Sometime in here, Henry Miller fought the very formation of Madera County (where he later fought and blocked the Madera Irrigation District).

Circa 1878, Kern County LC builds Calloway, Stine canals. (See Zonlight for details.) Again, these were developmentally and sociologically sterile. Water delivered almost exclusively to underling tenants. Kern County, population growth "ceased abruptly during the year 1877." (Zonlight, p. 310). 1880-1886, Fresno County population rose 89%; Tulare, 66%. Kern County. stood still, same period, or declined. This was due to monopolization of land and water by Haggin, Tevis, and Carr. (Zonlight, p. 316).

9. Radical governors elected? (Need detail and confirmation. There were some radical-preaching governors who, when it came to practice, were really in thrall to Leland Stanford, et al.)
10. 1879, new Constitution, many leveling features (although not nearly enough for H. George, who is critical). Grangers and Sandloters join forces. Mortgages included in property tax base. Franchises declared revocable. Etc.

Important symbolism: includes Lockean sections paraphrasing the Declaration of Independence¹. As in Jefferson's time, state power now used to counter reactionary federal power.
11. 1879, H. George published *Progress and Poverty*, born of radical protest learned from California conditions. Worldwide impact, 1880-1920. Also some California impact, to be shown. Demand for land reform and taxation was not peculiar to H. George, but widespread. Echoes of Emancipation: if slave property isn't sacred, landed property isn't either. Echoes of land frauds: they stole it anyway. Echoes of Mexican War: they took it from Indians anyway. Echoes of frontier egalitarianism: take what you need and leave the rest. Echoes of frontier developmentalism: use it or lose it.
12. State Board of Equalization created, to protect land revenues. Review Sapiro docs.

Boom, 1880s to 1893

1. California languishing far behind its potential.
2. No foreign or domestic threats. Europe preoccupied with itself, Africa and Asia, exporting capital. Low U.S. national taxes, debts worked down.

Feds pretty much out of internal improvements, leaving field open to state and local governments.
3. Southern Pacific slowly tightening grip, but not yet The Octopus. Some promotional land development work? (Data needed.)
4. Combination of depressed grain market and availability of capital encouraged irrigation enterprises: municipal, commercial, cooperative, individual.
5. 1882, Chinese Exclusion Act. May mark slightly reduced use of hired farm labor, expansion of owner-operators, family farmers, grangers, etc.

¹The point is often made that the Declaration, with its ringing egalitarian phrases, is not in "The Constitution." It is not in the Federal Constitution, thanks to Hamilton, Madison, et al.: but it has found its way into some state constitutions.

6. 1883, Southern Pacific reaches Gulf cities. 1885, Atcheson Topeca & Santa Fe reaches California. Rate wars kick off boom in South.
7. 1884, *Adventures of Huckleberry Finn* published, Twain at his most radical. 1886, H. George nearly mayor of New York. Theodore Roosevelt came in third, was well exposed to George. More important, he learned there were a lot of votes in that direction. Seeds of Progressive Republicanism.
8. 1882, George Chaffey develops Mutual Water Company (MWC) form to subdivide water, overcome limits of riparian doctrine. Etiwanda Colony, 1882, followed by Ontario, and spread of MWCs throughout South. They mostly just seize and distribute water, do not store it or manage aquifers.
 - a. 1887-1893, boom of private water companies. They busted in 1893 (like everything). Never came back, however, irrigation districts did.
9. 1886, first train of oranges shipped east from L.A.
10. Citrus farming attracts gentleman farmers who arrive with ample capital. They can afford to buy into the system, unlike dirt-farmer settlers; this probably is what makes MWCs viable.
11. City of Riverside extends its boundaries to include wide farm area, to help subdivide water? Check details. Use of municipal enterprise to foster farm water, presaging L.A. D.W.P., and M.W.D.
12. 1886, *Lux v. Haggin* decision: land monopoly reinforced by riparian water monopoly. Post-case settlement saves Haggin's water appropriations and enterprises. Egalitarian reactions to case overshadow its direct effects.
13. 1887, Wright Act, enabling legislation for irrigation districts, farm organizations with municipal powers, to finance and operate irrigation works. Directors elected by popular vote: a democratic innovation peculiar to California, and in California, to Wright Act Districts. It gave them a strong developmental and egalitarian cast. Modesto, Turlock start right away.

Fills void left by failure and irrelevance of Federal Desert Land Act, 1877. Lets small farmers pool their financial power, achieve economies of scale in water supply, keep economies and amenities and community of small-scale farming and small-town life.

Irrigation districts had powers of taxing without proving benefits to taxed lands; of bonding; of forced inclusion; of condemning water rights of all kinds; of eminent domain for rights of way. (I presume).
14. Use of property tax to make land speculators help finance water development has strong Georgist elements: leveling philosophy, generated in severe depression, applied in boom times. "Fiscal equivalent of War."

A new wrinkle in class warfare: not proles vs. owners, but small owners vs. large owners. Leveling within a limited universe.

15. Era of municipal enterprise opens, nationwide. Spring Valley Water Co.? (Dates?) L.A. goes to municipal water. (Dates?)
16. Settlement, east side of Fresno, Tulare counties. Eastern line of SP. Which came first, chicken or egg? Olmstead-Wischemann exchange. Wischemann says settlement came first, that is what attracted the railroad. (Shades of the Fogel thesis, only Wischemann comes at it from a populist perspective.)
 - a. 1877, settlement of Kern County stops abruptly. From here on to 1890, Kern County population stagnant, while Fresno and Tulare counties grew fast. This was due to monopolization of Kern land and water by Haggin, Tevis, and Carr (Zonlight pp. 310, 316).
17. Santa Clara Valley develops horticulture. (Detail in Williams and Walker.) Growing role of groundwater. Pumping technology? (Data needed.)
18. 1888, cyclical peak of federal land sales. 1889, sales closed off, to clean up land offices. 1891, Revision Act.
19. 1889, Johnstown Dam disaster in Pennsylvania. Helps civil engineers establish need for more professional management of local works. Joins with cholera to kick off era of safety and sanitary engineering: "The Plumbing Revolution."

Career of John Wesley Powell manifests the relationships.
20. 1890, frontier supposedly closes, seen from East and Midwest. Irrigation frontier, however, was just getting going. It occurred during conservation era, after land office reforms, in spirit of the Populist and Progressive eras, not the Gilded Age (the original one, 1865-1873). This gave it a more utopian ideology: land was subdivided, not engrossed, at first. Also an engineering ideology: mixture of the Progressive Era, populist ideals with professional management. (Cf. Johnstown Dam remarks, *supra*.)
21. 1890, Naval Act, idea of a U.S. Navy "second to none." Mahan published. Imperialism beckons. Kipling replaces Louisa May Alcott in popular literature. Fiscal needs rise; income tax pushed at national level, and a few states.

Revenue-sharing dries up. Few more sales of public land. Washington changes from a sugar daddy into a dependent, a net fiscal drain. Profound change in need for state and local revenues.

Almost all local spending financed by property tax, plus a high share of state spending. Assessors more inclined than today to put high share of value on land, moved by Georgist outlook. Calling it a "Georgist" outlook is not to imply George caused it, but only to give it a short label: he was a mirror of a popular movement in

his times, not the sole "original cause" of this phenomenon. The Wright Act (*supra*, 1887) manifested this social psychology.

22. 1890, McKinley Tariff ups rates. (This was atypical: tariffs usually rise after a crash, not before—this one, with Harrison as president, helped elect Cleveland in 1892, just as the Aldrich Tariff hike under Taft helped elect Wilson, 1912.) McKinley Tariff was partly for revenue needs, to offset drive for income tax. (Dingley Tariff, 1896, was the typical post-crash protective tariff.)
1892, Meline Tariff closes French market.
23. Labor-price of land at secular peak, breeding extreme pressures for relief. High reliance on property taxes was one such measure.
24. 1893, Hawaii becomes U.S. protectorate, linked to California, raises U.S. and California prospects in Pacific markets as Orient opens up.
25. Radicalism had been contained, alliances all fell apart except free silver, safely bankrolled and controlled by propertied western miners. Cleveland, although a Democrat, safely moderate to conservative. Elitist National Guard on tap to reinforce Pinkertons, put down emeutes. Property is again on top in class war. Mark Hanna riding high. Food cheap, cities booming. An excellent time to raise rents, relax, and enjoy. But then:

Crash, 1893-1896

1. Crash of 1893, portended by Baring Crisis of 1890. World capital dries up again.
2. Many Wright Act irrigation districts fail.
3. Populist revolt riding high in South and High Plains.
4. 1894, Congress passes income tax, including direct tax on property income, unapportioned; 1895, U.S. Supreme Court throws out Pollock case.
5. 1894, President Cleveland keeps building warships to avoid unemployment: he was an early "Keynesian hawk." Also, naval race was serious: Mahan and Kipling were the prophets.
6. President Cleveland sends federal troops to break Pullman strike. Labor was not winning the class war by direct action; but ameliorative, indirect forces were at work.
7. 1894, oil in L.A.
8. Overall, the shortest and least major of our major depressions, moderate as would suit the Mauve Decade. I attribute this to a combination of:

- a. Explosion of municipal enterprise, mostly urban. 1890-1900, city populations grew rapidly (in sharp contrast to Depression decade of 1930-1940, when cities stopped growing).
- b. In California, unlike other arid states, rapid growth of rural irrigation districts, which are legally "municipalities." They are the "Fiscal Equivalent of War." When they fail, they eat into private rents; when they succeed, they leverage rents highly.
- c. War preparations, growing pressure of federal taxes, reduced revenue sharing and reduced federal contributions to internal improvements. Local enterprise and finance moved into the vacuum. (In the Jackson boom, 1829-1837, local enterprise boomed, but with federal financial aid.)
- d. Possibly, inflationary pressures of Populism, coupled with new gold production, aborted deflationary squeeze. (This is a sub-thesis at most, and tentatively advanced here.)
- e. Preceding boom was tempered by several factors, e.g.:
 - i. World farm gluts.
 - ii. Extraordinarily high labor-price of land at beginning of cycle. There was little more surplus to squeeze out of real wages, as there had been in earlier land booms.
 - iii. Growth of property tax to support growing urban infrastructure needs and, in irrigation areas, rural infrastructure needs. (This tempered boom in land prices, but abetted boom in production and employment.)
 - iv. Rise of radical levelers, both native and immigrant, with credible threats of class warfare.

Recovery and Long Boom, 1896-1929

1. 1896, McKinley landslide repudiates Bryan, etc., for the time being. McKinley fairly pacifistic, but naval race continues.
Navy is more capital-intensive than ground forces, puts more upward pressure on interest rate than on wage rates.
2. 1896, gold in South Africa, eases deflation problem.
3. 1896, Fallbrook Irrigation District v. Bradley, U.S. Supreme Court upholds Wright Act definitively. Paves way for vast future expansion, marathon boom of 1903-1929.
4. 1897, Bridgeford Act supplements Wright Act. Major provision: gives Irrigation District Bonds higher seniority. (They did become *very* senior by 1920s; is this when it happened?)

5. 1898, Spanish War. Hawaii annexed. Caribbean adventures begin. Philippines taken from Spain, followed by long war against Filipinos themselves. Pacific fleet HQ in Los Angeles (check dates); San Diego rises as naval base; San Francisco Bay always important. Naval race inevitably involves California at high level, presaging its later role as the arsenal state.
6. 1901, Theodore Roosevelt replaces McKinley. Highly hawkish; also kicks off long dominance of Progressive Movement, populist ideals led by competent (and somewhat elitist) professionals. Explosive growth of progressive cities in upper Midwest: Detroit, Toledo, Cleveland, Milwaukee, even Chicago.

Norris publishes *The Octopus*. Muckraking, social protest in style: Steffens, Garland, Whitlock, Howe, Lloyd, Lindsey, Altgeld, Pingree, Sinclair, Veblen, Allen Smith, Bemis, Kiefer, Bigelow, et al. Apex of muckraking journalism, preparing public mind for Progressive public policies, local and federal.

7. 1902, Reclamation Act. Little direct California impact, but manifests federal commitment to expansionism, coupled with elitist concessions to egalitarianism, safety-valve doctrine. Parallels of T.R. and Bismarck, both elitist land reformers seeking to create small ownerships as political bulwark for great ones.

In spite of expansionism, this was the Age of Infilling, manifested by compact, high-density urban settlement of the times. Electric power for transit, lighting, elevators, and pumps aids this movement. Ideology of infilling, worldwide perspective, found in diverse sources, previously imperialistic, praising "internal frontiers," etc.

Evolution of Wright Act (*infra*) symbolized this counter-dominance (imperialism and infilling), and its resolution in California farming.

It was not just farmlands, but farm towns with food packing, processing, and coop marketing. Unlike North Dakota, which had to use Minneapolis as processing center, California compact farming fostered farm towns.

8. 1903, Panama Canal Zone taken, boosting California prospects. Long construction period, sanitary measures, symbolize and support plumbing and public works' revolution of the times, which kept city property taxes at high levels. (Canal opens, 1914.)

Anticipation of canal likely tamed transcontinental railroads, created freight rates more favorable to California. Hiram Johnson helped, after 1913.

9. 1903, Katz v. Walkinshaw, manifests growing importance of groundwater. Correlative rights doctrine does little to aid groundwater management, prevents conjunctive use, forces settlement to develop lands overlying aquifers as opposed to using aquifers as storage to support use of superior lands.

Early days of pumping, overdraft not a universal problem, but the contrary: pumping solved drainage problems over wide areas, had dual benefit.

First decade, electric pumps replacing gas-powered pumps of 1890s. Sierra power-drops plus compact settlement made power cheap.

a. 1904-, the Grange has grown enough to get over the hump and exert a lot of power (again—cf. 1879 Constitution).

b. 1904-? Dry cycle, stimulates water development.

Depressed grain prices, stimulated conversion out of grain?

c. First decade, marketing coops flourish. (Southern California Fruit Growers' Exchange had started 1893, but then there was a crash.)

10. 1904, Britain raises stakes of naval race with dreadnought class, obsoleting all the world's fleets. Triggers new naval race, much costlier.

Thus, victory in Spanish War did not lead to a peace dividend, but added military spending. It plunged us into world competition at a new, high-cost level. Coupled with infrastructure costs of urbanization, irrigation, and sanitation, this was a new era of high taxes.

In result, for the first time in our history, we had a long boom in construction without a boom in land prices. It helped, too, that we entered the era with land prices already higher than could be supported. Worldwide, 1890 was a climacteric in the labor-price of land, both rural and urban.

a. 1904, New York City builds subway, with heavy property tax subvention and low fares. (Today, can't even meet its operating expenses, with high fares and poor service!) Free or cheap muni transit in Cleveland, many other cities. Era of marginal-cost pricing, meeting deficits by property taxes.²

b. Bank of America expands, specializes in serving California farms. Stirs up other banks by competing.

11. 1905, naval battle of Tsushima, Japan emerges as formidable sea power, adding to demands for U.S. naval spending, California bases.

a. 1905, L.A. goes to Owens Valley for water. Municipal enterprise triumphant.

12. 1906, San Francisco quake and fire. Challenge and response: rebuilding modernizes, revitalizes city. Mayor Taylor, old friend and patron of Henry George, finances reconstruction by taxing what is left: the land. Fire dramatizes need for water.

²It took the economics profession until 1938 (Hotelling) to discover this principle. It was a bit dense about it.

13. 1909, Miller and Lux v. Madera Canal and Irrigation Co. Retrograde California Supreme Court decision blocking appropriator to protect the highly unpopular Miller & Lux. Probably led to the ff. reaction, as well as 1913 Water Commission Act.

- a. 1909, L.L. Dennett leads successful move to amend Wright-Bridgefurd Act to let districts, by local option, limit assessments to bare land values. This cracked the slow settlement problem that had helped bankrupt some earlier districts.

Like the original Wright Act, this was developmental Georgism, forged in the crucible of 1870s depression, applied in a time of prosperity. Again like the Wright Act it was "single-tax limited," applied locally, aiming at egalitarianism only within a narrow universe of landowners. Gains to the landless were not entirely incidental, however: they could vote in irrigation district elections. Effect was to foster subdivision and land sales at lower prices.

Newly formed districts had to exempt capital; older districts had the option, and they soon chose it. Local campaigns in Modesto and Turlock bring out motives, attitudes, role of single-tax ideology. (1917, all districts having chosen locally to exempt improvements, legislature made it mandatory.)

Block of Turlock, Modesto, S. San Joaquin, and Oakdale Irrigation Districts, remarkable rate of settlement and development. Modesto case documented in B.F. Rhodes' dissertation., "The Thirsty Land."

14. 1909, world movement for land taxation enters high plateau. Lloyd George budget in England, original "war on poverty," leads to Parliamentary crisis and revolution. Agitation of Sun Yat-sen will lead (later) to overthrow of Manchus; his principle of "right livelihood" premised on heavy land taxation. Japan (perhaps independently) imposes heavy land taxes. Canadian western provinces exempt capital from property tax, socialize timber, minerals, water power. Australia imposes graduated land tax to break up "squatters." Cleveland and Toledo move toward land tax, free public transit. New York pays for mass transit from property tax. Joseph Fels prepares to throw big dollars into campaigns. Kerensky pushes land tax.

L.L. Dennett's reforms thus fitted into a broad social movement with worldwide intellectual and moral support.

15. 1909, Payne-Aldrich Tariff. Unusual to raise a tariff without a preceding crash. Proved a major political blunder: alienates Progressive Republicans, triggers Bull Moose split, lays ground for Wilson victory.

To win Payne-Aldrich, Taft's congressional contingent trades votes, lets through income tax amendment, which thus was conceived in Taft administration, although born in Wilson's. At the time it probably seemed secondary!

What was primary was rising need of federal revenues, as arms race continued.

16. Municipal enterprise moves aggressively to appropriate and capture remote waters. L.A. Aqueduct; Hetch Hetchy project. Urban-rural alliances: L.A. with San Fernando Valley; San Francisco with Modesto-Turlock, also with San Mateo County. Municipal enterprise riding high, undergirded by local property tax power.
17. 1913, conscription in France, Germany.
18. 1913, Water Commission Act.
Same year, District Securities Commission formed, to endorse irrigation district bonds. A kind of early Rohatyn maneuver, lending implicit state endorsement with no legal obligation. It worked well (until 1929).
19. 190?, Imperial Irrigation District formed to save area from wreckage of early private efforts. Another black eye for private water development; another credit for municipal enterprise.
20. 1911-1913, single-tax initiative campaigns, financial help from Fels Fund. These all nominally "failed," but no politician ignores any movement that wins a large minority of votes. Concessions were made, often via assessment practices bearing heavier on land, lighter on improvements.
21. 1912, Hiram Johnson (R) elected governor to smite The Octopus; reform is in the air. Progressive movement strong in both parties.
22. 1912, L.A. creates its own harbor. More municipal enterprise.
23. 1912, remarkable absence of a crash and slump. If we project nineteen-year cycles of the 19th century, another was due near 1912. There were stock market waves, a bankers' panic, but no real estate waves, only steady advances. This calls for explanation. It is found in unusually sound basis of preceding boom, based on the Age of Plumbing, of public health, social infrastructure, and professional leadership, *noblesse oblige*, married to populist ideals: Progressivism. Locally, this was Fiscal Equivalent of War.

Explanation also found in absence of peace dividend. Nationally, military spending was fiscal war. Higher taxes skimmed off surplus that would have gone to raise rents, land prices.

There was active hostility to land speculation. There were deep Malthusian anxieties, fear and loathing of a loss of community and innocence, growth of a class society. Conservation movement showed new respect for land as object of caring use and veneration, rather than something to loot. Presaged modern environmental movement.

L.A. Aqueduct and Hetch Hetchy bucked the trend, in part. These were rent-seeking ventures. However, ability of municipalities to put up needed front money, and beat

private rivals in the potlatch game, reflected growth of municipal power based on property taxation.

The single-tax movement did not die: it was folded into Progressive movement, especially the Wilson Administration. Three cabinet members (Lane, Wilson, and Baker). Henry George's chief lieutenant, Louis F. Post, is Assistant Secretary of Labor. Large group of Congressmen, including Henry George, Jr., and Warren W. Bailey, who framed 1916 income tax details. Single-tax movement also led an independent life, cited *infra*.

24. 1913, 16th Amendment passes. Allows military spending without high tariff or excises. Underwood Tariff lowers rates.
 - a. California Water Commission Act legitimizes appropriative doctrine. Offsets damage from 1909, *Miller & Lux v. Madera Canal and Irrigation Co.* Riparian rights idle ten years are opened to appropriation.
25. 1913, California Alien Land Act, directed mainly vs. Japanese, not because they were coolie labor, but because they were family farmers who competed successfully with patroon class. Racism helps grangers look to patroons for allies, adopt their mindset. Adds to tensions with Japan, another reason to strengthen Pacific Fleet.
26. 1914, Panama Canal opens.

World War I, 1914-1918

1. California again sheltered, as in Civil War, but this time along with whole nation (until 1917). Gains from soaring demand for food, naval bases. Japan turns out to be an ally, although one needing to be watched.
2. 1914-1920, war and aftermath turn U.S. from debtor to net creditor nation. Removes colonialist, debtor psychology that supports heavy property taxation. Paves way for conservative backlash postwar.
3. More irrigation districts formed (numbers needed).
4. 1916, 260,000 California voters support a "pure" single tax amendment. Peak of electoral support, until 1933 EPIC (End Poverty in California). Says a lot about temper of times.
5. 1916, conscription in England.
6. 1916, Congress frames details of first heavy income tax after 16th Amendment. Leader is Congressman Warren Worth Bailey (D-Johnstown, Pa.), Princeton man, former editor, and single-tax crusader (researched by Prof. Elliot Brownlee, UCSB).

Tax is highly progressive, exempts most earned income, focuses on property income, war profits, excess profits, capital gains.

7. 1917, mass conscription, highly democratic, no substitutions or exemptions, under Secretary of War Newton D. Baker, former single-tax mayor of Cleveland, successor to Tom L. Johnson. Unlike Civil War, no one can buy out. Fairest draft law and administration we ever had.
8. U.S. pursues pay-as-you-go philosophy of paying for war, unlike other combatants. Very high tax rates. Lays groundwork for the unusual impact of postwar peace dividend, much more extreme in U.S. than other nations—they were saddled with larger postwar debts to pay. This helps account for extremes of U.S. boom of the Twenties.
9. Net result: labor-price of *urban* land falls to secular low, following secular high reached circa 1890. Golden age for U.S. labor, in purely cash, Gompersian terms. (Not so viewed socially or politically by persecuted Wobblies, Debs, Job Harriman, Victor Berger, et al.) Set stage for postwar housing and business booms.
10. 1916-1920, national policy emphasis on boosting food production, leading to farm crash of 1920.

Peace Dividend, Boom and Bust, 1919-1929

1. Palmer Raids, deportations, class war pushed aggressively. 1921, wage rates plunge. Stage set for new rise of rents and land prices. Egalitarianism in retreat; Palmer's lieutenant, J. Edgar Hoover, installed permanently as top cop for over fifty years!
2. 1920, Volstead Act goes into effect, enforcing Prohibition. Billy Sunday and Aimee Semple MacPherson rise to fame: petty morality and mystical Christianity displace social gospel.

Moral repressionism may support political repressionism. 1921, Hays office censors social consciousness out of films.

Lost Generation writers like Mencken, Nathan, Fitzgerald, et al. disparage both kinds of morality, social and petty, boost moral nihilism. Bryan supports both kinds of morality and tradition, loses badly at Dayton, becomes "liberally incorrect."

3. 1920, farm collapse. California specialty crops largely spared, new irrigation districts still being formed rapidly, ambitiously... and avariciously: water grabbing leads to excesses, unsustainable, ff. by repudiations.
4. 1920s, state "Marshall Plan" pushed, blocked by power companies. Municipal enterprises continue to dominate water supply; private companies dominate power.

- a. 1921, oil strike at Signal Hill: a derrick on every lot. 1924, Signal Hill incorporates, to keep wealth all to itself. Tax enclaves become a way of life in California.
5. Major dams by irrigation districts in Sierras: Don Pedro; Exchequer; etc. Alliance on Tuolumne, San Francisco and Modesto/Turlock.
6. Hydrel developed; well irrigation expands, offers alternative to municipal irrigation districts, especially for owners with scale economies.
 - a. Reclamation of wetlands moves ahead, using Reclamation Districts.
 - b. New irrigation developments, with storage and hydrel. Hydrel was mixed blessing. It helped finance districts, but this let them lower land assessments, thus removing a spur to rapid, compact settlement. Also, cheap hydrel encouraged pumping.

Result: irrigation sprawl. Another factor was water hogging, e.g., T. Irrigation District v. L.S. Irrigation District. (The final case was 1935, but other forms of blocking started earlier.) By blocking LSID, TID fostered new developments in Terra Bella, e.g.
7. 19??, L.A. first taps Colorado River.
8. Late 1920s, several irrigation districts begin to default, before national depression.
 - a. Mid-1920s, marketing co-ops become restrictive, in spirit of Hooverist associationism. Sun-Maid, e.g., effort to monopolize raisin market.
9. Federal government pays down national debt.
10. Drastic disarmament; Kellogg-Briand Peace Pact outlawing war; Washington Naval Treaty. Sharp fall of national taxes.
11. 1920, Eisner v. Macomber, turns back Progressive effort to tax capital gains on accrual basis. Opens door for more preferential treatment of capital gains (dates needed); oil depletion allowance; drastic change in nature of income tax, relieves property, privatizes rents, and allows for boom in land speculation, such as not seen since 1880s.
12. Looting German patent pool boosts American science, helps establish industrial dominance.
13. 1925, English overvalue pound, strengthen U.S. exports.
14. 1926, Herminghaus v. Southern California Edison, California Supreme Court shows its old propensity to side with idle riparians, even against a powerful power company. (Tulare was harassing LSID at this time, got aid and comfort here.)

15. 1928, California Constitution Amendment, requires "reasonable use" to retain water claim. Answer to Herminghaus. Legitimizes development under appropriative law (but by now, boom was over).
16. "My Blue Heaven," the first million-copy recording, captures cozy *zeitgeist*.
17. Low taxes, world dominance, order and sobriety, Wobblies busted, peace pacts, world disarmament, oil wells, certified saccharine movies, Hoover trade associations, marketing coops, water, wealth, contentment, and health. Blue Heaven: what more favorable conditions could there be? Result:

Crash, Repudiation, New Deal, 1929-1940

1. 1929, crash on Wall Street. Main Street may have come first, but it's not an official crash until it hits the top. By 1933, half the banks fail.

U.S. harder hit than most countries: net immigration stops. U.S. share of world manufacturing output drops from 43% to 29%, 1929-1938.

Real estate had plateaued out from 1926-1927, leading Wall Street by two to three years.
2. Irrigation districts develop habit of repudiating bonds, finally formalized in Municipal Bankruptcy Act. (1936?)
3. 1933, EPIC, Upton Sinclair nearly made governor. Class warfare from the bottom.
4. 1933 and on, influx of displaced Dust Bowl workers, less docile than alien Orientals, Mexicans. Ugly class war, a la Steinbeck, McWilliams (*The Grapes of Wrath* and *Factories in the Field* were both published in 1938).
5. Municipal enterprise stagnates. After a painful pause, federal enterprise moves into vacuum.
6. Federal power invoked to limit farm output, regulate marketing.

Same time, co-ops try to control output. Diamond Walnut formed, price-discrimination schemes. Oranges burned. Lettuce restricted. Green drop of cling peaches. Ports of entry seal off local market. Rice program. Etc.
7. Foreclosures rampant. Bank of America ends up with 20,000 farms in California.
8. Tax delinquencies and strikes.
9. Use of groundwater continues. 1933, Orange County Water District formed to regulate pumping, stop saltwater intrusion. 1935, Tulare Irrigation District sues Lindsay-Strathmore to stop riparian pumping.

10. Federal Rural Electrification Administration subsidizes farm power, low rates: fosters farm pumping.
11. Land prices fall very low, remain so after World War II.
12. State calls in Bureau of Reclamation (U.S.D.I.) to build Central Valley Project with federal funds. Bureau of Reclamation imbued with Tennessee Valley Authority psychology of integrated development, plus land reform zeal from 1902 Reclamation Act, with 160-acre limitation. Leveling spirit, with backing from The Chief, another Roosevelt.
13. 1934-1940, Bureau of Reclamation finances All-American Canal for I. Irrigation District and San Diego.
14. 1931-1936, Bureau of Reclamation finances Boulder Dam (renamed for Hoover at time of 80th Congress, 1947).
15. 1939 (Worster: 245). Central Valley latifundistas had presumed they would be exempted from 160-acre limitation. Ickes cared nothing about it. Commissioners of Reclamation Elwood Mead and, later, Page didn't bother to mention it. However, simultaneous publication of *Factories in the Field* and *The Grapes of Wrath* aroused national feeling vs. pick-handle-wielding farm employers. Suddenly forced Ickes and Bureau of Reclamation to think about enforcing acreage limitation in Central Valley

World War II, 1940-1945

1. New emphasis on Pacific Theatre, central role for California ports, federal spending. California booms with war activity, much like Chicago in Civil War.
Exception: 1940, FDR moves Pacific Fleet from L.A. base to Pearl Harbor, to warn Japanese. This reduces California's exposure to danger.
2. Mass conscription pushes up wage rates. Taxes very high on all incomes. Labor-price of land at low level. (However, wage withholding sets stage for postwar conversion of income tax into mainly a payroll tax.)
3. 1942, Japanese-Americans interned.
4. 1942 (Worster: 296). Presidential Executive Order allows hiring *braceros* on temporary work permits. Extended, 1951, PL 78. 1959 is peak year for braceros, with 136,000 in California and 206,000 in Texas. See 1964.
5. 1943, Chinese Exclusion Act lapses quietly. Kuomintang China is now our ally.
6. 1944, no domestic truce in class war. Flood Control Act, southernmost rivers from High Sierra removed from Central Valley Project (CVP), given to charge of Army Corps of Engineers, dedicated to giveaways, Balkanization, and complaisance.

Isabella, Pine Flat, Terminus, and Success reservoirs soon built, unintegrated. No cost to benefited landowners, mostly big, including gigantic J.G. Boswell, Tulare Lake Basin, linked by marriage and common class interest with Chandler family, *Los Angeles Times*. Timber is reclassified as a "capital asset" for income tax purposes, getting preferential treatment, virtual exemption.

7. Contra Costa Canal of Central Valley Project completed, in service by 1944, eight years before Friant-Kern Canal: war puts Bureau of Reclamation into urban water supply. A new trend? It was a New Deal trend, got beaten back. (1967, Boswell was to beat out L.A. on CWP water by several years.)

Reaction and Class War, 1946-1957

1. Concerted movement begins to remove wartime controls, taxes, allied ideologies, and personnel. Modeled, perhaps, on Palmer Raids of 1919-1921, was less successful at first.

1947, drive for "loyalty," with echoes of Mitchell Palmer (and the same J. Edgar Hoover), related to keeping nuclear monopoly.

2. Moderate Earl Warren remains governor, 1943-1953, a tempering influence in volatile California.
3. 1944-, G.I. Bill, cheap loans to vets; Farmers Home Administration, cheap loans to others. Land prices rise, but push is demand-side, market is active, ownership is somewhat democratized.
4. 1948: another big crash due, if we follow nineteen-year cycle from 1929. World War II obviously disrupted cycle.

Allowing for that, crash due eleven years after armistice, circa 1956. Postwar prosperity, not always screaming, but moderately good, lasts longer than expected.

Why? Explanation probably lies partly in heavy federal taxes. *There was no peace dividend this time*, hence no "Roaring Fifties" to replicate Roaring Twenties. It was a nervous Fifties, with bomb shelters dug under some basements.

Also, heavy federal debt, which replaces real estate loans (as of the late 1920s) as major asset of banks, give more stability. Realities hidden in formalities of Keynesian ideology, which may have put spotlight on incidentals, distracting economists from the main point.

1950, Korean War, military budget quadruples, 1950-1951. Federal taxes rise, skim off surpluses that otherwise would be capitalized into land prices. Land prices rose, it looked to some contemporaries like an old-fashioned land boom, but it started from

such a low level, there was lots of space for high percentage rises without killing the market.

1950-1981, chronic cold war, episodic hot wars, keep military budget, tax rates, and downbeat psychology at high levels. Inflation chronic, occasionally two-digit; inflation-cum-income tax is a general wealth tax. Bracket creep raises effective tax rates. Taxes (and inflation) keep skimming surpluses, keep land booms more temperate than otherwise.

5. 1947, Senator Sheridan Downey trains guns on Bureau of Reclamation and allied Bureau of Agricultural Economics (BAE) of U.S. Department of Agriculture, cuts budgets, intimidates personnel. Aborts enforcement of acreage limitation; weakens utility-type contracts of Bureau of Reclamation with local irrigation districts and other customer reps. Changes priorities from urban to rural. Sets stage for farmland speculation boom based on federally subsidized water giveaways.
6. 1947, 80th Congress passes Taft-Hartley over Truman veto, begins rollback of wage rates. A major step in class war, but war did not proceed smoothly.
7. 1948, surprise election of Harry Truman, defers reaction, forces some moderation. A severe downer for rent-takers and Comstock revivalists. Boke and Straus get back pay, Bill of Attainder lifted.
8. 1949, Soviets detonate atomic bomb, shatter presumption of back to normalcy.
9. 1949, Pasadena v. Alhambra, doctrine of mutual prescription, triggers off "race to the pumphouse" to establish histories of using groundwater. (One of several poor decisions by California Supreme Court, culminating in Humiliation of Ivanhoe.) Fosters overdrafting on grand scale.
10. California freeway system and federal interstate system join with auto boom to start long process of creating unprecedented urban sprawl. This in turn gives a new dynamic to California horticulture as expanding cities send shockwaves throughout hierarchy of farm uses. Supplies of urban-convertible land, and water, are elastic enough to keep land overpricing from snuffing out boom. Savings rates keep capital supply adequate.
 - a. 1950-, Korean War, cotton quotas open, California farmers move into the breach. Using uncommitted land and water, they expand fast. Rent-seeking, classic case. Secured future quotas. How timely that CVP opens, 1951.
11. 1953, persecution of BAE culminates in termination. Bureau of Reclamation egalitarianism emasculated; agency converted to pure pork barrel operation.
12. 1950-1960, age of Jack Tenney, Joseph R. McCarthy, early Richard Nixon, loyalty oaths, Rosenberg executions, etc. Invidious class war effects of this ideological reaction were somewhat offset by high federal income taxes, progressive rates. Not

such a clear-cut class war victory as the Palmer Raids. McCarthy destroyed, 1954. Nixon loses, 1960, 1962. But in 1962, Nixon, never popular personally, could still make a good run for governor by charging that Pat Brown was soft on Communism. This show had a long stand.

13. 1955-1990. In the great valley, cheap water is leading to massive substitution of water for labor. Instead of a land settlement boom, however, there is rural depopulation reminiscent of enclosure movements. Cotton, mechanization, chemicalization, etc. Rural population of Fresno, Tulare, and Kern counties stagnates, after having grown rapidly 1940-1950 in era of dear water and survival challenges. Absentee ownership grows; farm towns, previously Arcadian, devolve into rural slums for migratory workers. This era for this Bureau of Reclamation service area is reminiscent of whole state during stagnation era, 1860-1880.
14. 1947-1957, California Supreme Court encourages trust doctrine of water: Bureau of Reclamation holds water licenses in trust for landowners, in proportion to their lands.
15. 1958, California Attorney General (and future Governor) Brown surprisingly supports Ivanhoe Irrigation District vs. McCracken and friends, wins stunning victory. U.S. Supreme Court, under (former California Governor) Warren, stingingly puts down California Supreme Court, gives Bureau of Reclamation and Congress free hand with CVP and acreage limitation. Although this decision has been mainly subverted in implementation since then, it has symbolic value as punctuating end of era of reaction: a kind of stalemate in class war, even a turning point of sorts.
16. 1959, Burns-Porter Act. California revives era of state public works, state water plan for west side of San Joaquin Valley. State sales tax and income tax securely in place to finance this without raising property taxes visibly. Offshore oil revenues diverted from university buildings to subsidize water plan. Extraordinary concentration of benefits in hands of a few. 1960, voters barely approve, but a miss was as good as a mile. (1967, first water reaches J.G. Boswell; L.A. served some years later.)

JFK, Heller, the Soaring Sixties, and Viet Nam

1. 1960, JFK narrowly elected over Nixon, signalizes era of some moderation, liberal tax reforms, distaste for early Nixonian class war and cold war persecutions. Precludes radical redistribution such as that which triggered off land boom of 1920s; but allows slow, sedate rise.
2. 1961, Bay of Pigs humiliation, a psychological downer, dramatizes limits of U.S. power. Psychology is focal in present thesis, it is basis of land's price/rent ratio. Psychological downers, especially for rent-takers and absentee holders (who hold land

as a store of value, rather than a tool of production), hold down ratio, permit land acquisition by broad part of market.

3. 1962, Cuban Missile Crisis. We perhaps "won," but such a fright is negative influence on euphoria required for land boom. Some people are building bomb shelters in or under their basements.
4. 1962, Baker v. Carr decision opens way for reapportionment of state legislatures. Begins long, surprisingly slow process of prying subsidies and privileges from farm landowners, who retreat as masterfully as Kesselring in Italy. They bolster old alliances with cities, and new ones with suburbanites and, in California, the Metropolitan Water District of Southern California . Baker came too late, anyway, to stop CWP or I-5. Rural-urban division is blurred by industrial ownership of west-side farmland.
5. 1962-, JFK administration pushes "business Keynesianism," emphasis on stimulating investing in *new* private capital via fast write-off, ITC, accelerated depreciation pathways, etc. Formula seems to work, economically and politically. JFK has everyone pulling together, ready for a takeoff, when:
6. 1963, JFK assassinated. Stirs fears of coup d'etat, secret government.
7. 1963, Betty Friedan kicks off womens' lib, decline of traditional family.

The Pill is distributed widely, revolutionizing heterosexual courtship mores, increasing number of singles, weakening traditional nuclear family with its demand for detached homes on ample lots. Divorce rate soars; single parenting becomes commonplace.

Combination of Civil Rights, Womens' Rights, Students' Rights unsettles old expectations. This is accompanied and/or followed by divisive Viet Nam, unsettling expectations of military duty by young in service of the old. Gray Panther movement, setting stage for later Proposition 13, unsettles expectations of duty by old toward the young. Counterculture, reviving Thoreau and Veblen, and drug culture exhibit contempt for traditional assumptions of property acquisition. Among conservatives, Libertarian cult matches radicals' hippie cult, undermines former *noblesse oblige*, community responsibility. Ethnic revivalism, flag burning, indicate retreat from nationalism to particularistic loyalties. Churches that preach individual salvation gain on social gospel. On all fronts, old social compact is crumbling; sense of mutual obligations and devotion are falling. It is an unsettling, divisive decade, with several forms of "moral equivalent of civil strife," no longer simply on traditional class lines. (Gay Rights is yet to surface.)

8. 1963, Rachel Carson kicks off anti-pollution movement, another unsettling new element to challenge euphoria, upset expectations of rising rents, abort a land boom.

9. Meantime, it dimly dawns on Americans that the Rising Sun is up, prospering under protection of our military umbrella, may out-produce us, certainly out-saves us. This is unsettling, too.

Sub-thesis: Japan had financed wars in 1930s by borrowing, had huge national debt. Postwar pacifism let them pay down debt; this pumped capital into private sector, and soon into world system.
10. 1964, 24th Amendment outlaws poll taxes: class war turns in favor of the poor, or at least one large section of them. Blacks in South become voters.
11. 1964, California Proposition 14, bucking national trend, allowed race discrimination in sale or rental of housing. U.S. Supreme Court throws out. As with Chinese exclusion, Alien Land Law, Okie-bashing, Japanese internment, bracero programs, Proposition 13, California seems to have a meaner mean streak than most states.
12. 1964 (Worster: 296). Bracero program terminated, reflecting temporary rebound of labor strength during JFK interlude. National Farm Workers Union tries to organize workers. 1968, national grape boycott, height of power and success. After that, mechanization crowded them out.
13. 1964, Berkeley student riots start a trend. 1964, Harlem riots start a trend. 1964, Civil Rights Act, a stroke for poor in class wars. Like the 24th Amendment, sets stage for alienation of non-black poor. 1965, Watts riots. 1965-1968, urban race riots, burnings, same time as Civil Rights Movement makes headway. Psychological equivalent of civil war? Accelerates urban sprawl through white flight. School integration, ditto. Keeps land prices low in center cities, creating space for coming gentrification: another factor tempering land price boom.
14. 1965-, escalation in Viet Nam. Regressive conscription policy. Riots, protests. Another psychological equivalent of civil war, tempering euphoria that might otherwise arise from sustained economic growth.
15. 1968, national grape boycott. Height of Chavez's power.
16. 1968, Nixon, despite personal unpopularity, forges new "silent majority," harnessing white middle-class reaction to disruptions of the early Sixties.
17. 1971, 26th Amendment lowers voting age to eighteen. This took some deep insight and a big risk by Nixonians. On the surface this was a cohort of rebels. Conservatives evidently saw beneath this. These hippies and future yuppies were rebelling against conscription and the state, not against property. They were more libertarians than populists. And so it came to pass.
18. 1971, wage-price controls (which were mainly wage controls) relaxed.
19. New Nixon courts Communists in USSR, China.

20. 1972, Soviet Union shifts to a grain importer. Midwest farm land price boom starts up, will quintuple land prices by 1982 (followed by a setback).
21. 1972, *Limits to Growth*, while panned by economists, signalizes public mood of concern over resource scarcity. Energy crisis aggravates this—traditional economists, busy sneering at the Meadows', celebrating economic growth and resource abundance and their own success, caught off base by energy crisis.
22. 1972, plateau or peak of objective material condition of working Americans. Gains since then, if any, offset by loss of welfare relative to foreign nations, and rent-takers. Maximum hourly wage rate, constant dollars, industrial non-supervisory labor, was circa 1975. Ten percent decline to 1990.
23. 1973, U.S. ends role in Viet Nam.
24. 1973, draft ends.
25. 1969-1973, Nixon copes with Viet Nam, gradually wins public confidence he never had before. Rides out first energy crisis. Then, just as things were settling down and shaping up:

Energy Crisis, Watergate, Ford, Carter, 1973-1980

1. 1974-1982, Jerry Brown, governor of California, declares "Age of Limits." Inspiring to some, it is a downer to real estate developers and speculators. Brown fills administration with counterculture types, recognizing numerical strength of social protest. Shades of EPIC! Same time, Canadian New Democratic Party takes over B.C. government: experimental change is in the air, confidence in traditional leaders has been shaken.
2. 1973, great energy crisis, gas lines, inflation, price controls, another downer, frightening.
3. 1973-1974, Nixon hogtied by Watergate. Republicans seriously weakened, discredited, demoralized.
4. 1974, Nixon resigns. Democrats gain congressional seats. Ford stumbles along unimpressively.
5. 1974, OPEC lifts oil embargo, at higher price level.
6. 1975, recession, California homes and urban land available cheaper than for some time. Massive new supplies of farm irrigation water bring on new lands, crops, depress farmland prices related to California specialty crops.

7. 1976, recession helps Carter win. Like Governor Brown, he stresses conservation. Energy conservation becomes a rage, "the moral equivalent of war." High gas prices and fears of future temper suburban land booming.
8. 1977-1981, Carter cuts subsidies to water development; but approves Goldwater's Central Arizona Project (CAP), putting potential squeeze on Colorado River.
9. 1977-1981, public disillusioned with smug old Brookings-type establishment, with its thinking based too singly on the demand-management panacea, increasing tolerance of inflation and bracket creep, and fatalism of Phillips Curve. Seek some alternative.

Tax Revolt and Deregulation, 1978-1991

1. 1978, Proposition 13. California government gets by for a while drawing on surpluses and some "fat in public sector." Land prices start to soar, like 1920s, joining Midwestern farmland boom and oil patch booms. Social compact rudely violated; schools slide to mediocrity or worse. The aged wash their hands of the young: "The Sun City Syndrome."
2. 1979, Three Mile Island nuclear reactor accident punctuates disillusionment with nuclear power, long a basis for long-run technological euphoria. Re-enforces pessimism of energy crisis.
3. 1979, Volcker revolution lets interest rates soar. Remarkably, this does not stifle land boom. It does trap S&Ls holding long-term fixed-interest paper, drives many to bankruptcy. Remarkably again, their niche is filled by new lending institutions, including commercial banks, even including unrepentant S&Ls.
4. 1980, Soviet Afghan invasion; Iranian hostage crisis: war clouds and sense of weakness rise again. Carter recognizes recession.
5. 1980, Reagan elected, Laffer promises lower tax rates mean higher revenues. Kicks off Age of Laffer-Curve Illusion, and "Dangerous Curves"—the curve showing rising deficits. Combination of lower federal taxes, lower state/local taxes, wishful disregard of deficits, feeds raging land speculation.
6. Ricardian Equivalence Theorem replaces Keynes to rationalize deficits; but, actually, bondholders feel richer while future taxpayers find bliss in ignorance, or disregard. Net result is effective crowding-out, fall of private investing.
7. 1981-, deregulation-cum-deposit-insurance lets intermediary institutions finance suburban land boom in an irresponsible manner reminiscent of 1920s, the Gilded Age, and Jacksonian wildcat banking era. Commercial banks get dangerously involved, diluting their safe dependence on federal securities which had stabilized them (and with them, our money supply) since the bank holiday of 1933.

8. 1981-, growth control movement fortified by Proposition 13, oddly linked with environmentalism, keeps much land off market, adds to land price boom.

Remnants of radicalism rally around environmentalism, where they are neutralized by Malthusians like Hardin, Ehrlich, and the mass of suburbanites who like elitist zoning, gated communities, and fiscal enclaves.
9. 1981, farm land price boom crests in Midwest. Prices had quintupled from 1972. Prices now begin steep slide to 1987. Federal land banks fatally overextended, sink with the ship, portending fate of urban banks.
10. 1981, Reagan fires air-traffic-control strikers. Unions weak and getting weaker.
11. 1982, recession persists; oil prices soften. California land boom in high gear.
12. 1982 (Worster: 301). H.R. 5539, Udall, becomes Reclamation Reform Act. Eliminates residency requirements, BR projects. Army engineer projects exempt from any limit. Reaganomics thus encourages land boom, without constraint on absentees buying farmland as an investment.
13. 1983, California voters reject Peripheral Canal, signal for new era of water management. Water leaders resist the signal. Even drought, 1986-1991, coupled with CAP, has not been enough to stimulate more than token changes. Because of ample natural supplies, this has not caused serious hardship, but MWD has overextended itself by underpricing and over-annexing, will soon raise rates and taxes, and make its median citizens pay the piper.
14. 1986, oil prices collapse; new basis for commuting expansion in consuming regions.
15. 1986, real estate collapses in oil patch cities, then in New England, Arizona, elsewhere. Bank scandals come to light, echoes of 1929-1933.
16. 1987, October 19 stock market fall, steepest in history, 508 points. Forecasts of doom are premature, as it turns out. As throughout several decades, counterforces equilibrate, prevent positive feedback mechanisms from swirling entirely into collapse.
17. 1988, Paul Kennedy attributes decline of U.S. power to overextended military commitments. Signalizes new mood of retrenchment, but overlooks paradoxical socio-economic benefits from military spending, historical association of war and prosperity.
18. 1989, Kevin Phillips declares it has been a "capitalist blowout," i.e., property had won the class war and overplayed its hand.
19. 1989+/-, land price peaks in California. Softening market brings out more bank scandals.
20. 1991, Iraq war, a stunning success, creates new sense of security regarding oil supply and our military hegemony.

21. 1991, collapse of Soviet Union and associated threat of communism. Peace dividend is quickly declared, closing bases, reducing nuclear arsenal.
22. 1994, Republicans win Congress, prepare to lower welfare, suppress wage rates, lower capital gains taxes, deregulate and privatize in all directions. Communism defeated. Property has won the class war. For the first time since 1945, it now looks as though we have a heavy peace dividend in store. Kennedy implies this will lead to prosperity. Capitalist blowout continues: stock market soars, even while real estate falls. "Jobless prosperity." Nothing to stop property owners from relaxing back, raising rents, cutting their taxes some more.

2/95, it now seems clear that Gingrich, et al. will cut the peace-dividend melon with a flourish. This should trigger off another 1920s-type boom, with a similar result. However, there is the difference that state and local governments are now hogtied tax-wise, much more so than then, so there will be much less provision of infrastructure. Federal government, meanwhile, has yet to resolve massive contradiction between resolve to cut deficit and resolve to cut taxes. Leaders have gone into denial on the question, as Reagan did, embracing Laffer-Curve Illusion. Outcome in short run seems to be for failure of budget balancing, amendment or not. Indeed, it seems clear the amendment is a stall, will kick around for years, like Equal Rights Amendment, finally fade away. Meantime, deficits will continue.)

Outlook

(Needs to be done again—this is weak, vacillating!)

1. A prime value of studying history is that immersion in the sequential relationships of the past may help us see into the future. Let us now try.
2. The present peace dividend will not save us from massive debts run up during dangerous years of Laffer-Curve Illusion. It arrives, rather, just in time to let us try to service and even pay down on the debts, rather than repudiate them through inflation, as many seem to have expected. The high-tax solution would soak up the peace dividend, avoid inflating rents and land prices, and create private capital by "reverse crowding-out."
3. The inflationary solution would trigger a flight into land purchase, the ultimate hedge against inflation, and avoid a land price collapse. This would, however, be illusory: it would not raise the real rent-yielding capacity of land. It would simply signal the collapse of our financial system, in the manner of Less Developed Countries.
4. Either way, then, it seems likely the land boom is over. We are a nation that has drawn down its surpluses over some period, and one way or another we will pay the price. Here is a litany of our problems.

5. Some of our unresolved problems today include rising homelessness, the counterpart of low affordability of housing. This problem persists in spite of massive subsidies and tax breaks for housing that make America "over-housed" next to, say, Japan. Unemployment persists. Income and especially wealth are distributed with increasing inequality. American industry grows obsolescent faced with foreign competition: replacement is too slow, as in later 19th-century Britain. Britain then at least saved and exported capital, but America's net domestic capital formation is dangerously weak, leading to capital imports and alienation of American wealth. Real wage rates are level or falling. Crime rates are frightening, with many Americans choosing to live in an underground economy. Anomie and substance abuse are everywhere. American school graduates find it hard to compete with foreign students with a more serious work ethic. National security still hangs on foreign oil. A large piece of our financial system has just collapsed, and the rest looks shaky. Americans' network of mutual obligation and support has weakened. American infrastructure, like California highways, badly needs replacement and/or expansion.
6. It seems, then, that the market perception of future surpluses has outrun reality. Most of our national debt may be "American-owned," but these "transfer payments" are not costless: they require taxes. They are not incentive payments to the recipients, but they lower after-tax incentive payments to the taxpayers. We have lost the willingness to impose taxes without excess burdens (e.g., the land tax, or an income tax modified by fast write-off). The result is a high net transactions cost in the transfer from taxpayers to bondholders.

We probably will not pay down the debt.
7. The outlook, then, is, as it has been since 1949, too mixed for a one-sided boom or a crash. We will not go out with a bang, but a whimper. The prospect is for stagnation, nagging unresolved unemployment, homelessness, crime, social problems, and loss of ground to more competitive foreign nations. Our surpluses, like those of MWD, are drawn down, and there is no sign of the high degree of resolve needed to restore them.
8. A drastic land price collapse might be healthier than the slow stagnation envisioned here. It would lower the labor-price of land and clear the way for a fresh start. It seems more likely we will have a long period of attempts to sustain the market artificially.
9. Over many years, the humiliation of rising alien ownership, or some new foreign threat, may lead to a nationalistic reaction, higher taxes on property and property income, in an egalitarian revival emphasizing employment, access to land, and citizen welfare.