

Chapter Four

AT THE CROSSROADS: DEFINING CALIFORNIA THROUGH THE GLOBAL ECONOMY

Richard A. Walker

California has been globalized from the moment the European empires cast covetous eyes on the west coast of North America, and the state's economy has been deeply engaged with global trade, production, and finance since before the Gold Rush. It is not possible to tell the story of California's economic development without connecting it to the rest of the world. At the same time, an exaggerated notion of contemporary globalization runs the risk of eliding certain realities of history and geography. Therefore, the narrator of the state's economic history must be cognizant of the following puzzles of handling time and place.

The first thing to be alert to is the multifaceted nature of globalization (Dicken 2007). While much beloved of economists, trade (commodity flows) is the barest measure. One must be attentive to finance (capital flows), migration (labor flows), and production linkages (complex divisions of labor), as well as business ties through multinational corporations and alliances, and, conversely, competition with foreign companies. One must also account for technological connections, such as the import of machinery and export of new ideas. In this sense, California is suspended from a global web made up of Asian food markets and computer assembly, British and Japanese investment, Asian and Latin immigration, Indonesian and Venezuelan oil, and technologies of nuclear power, microchips, and concrete dams.

A second difficulty is how to cope with multiple geographic scales. To accept national boundaries as the sole markers of territory is to miss much of significance about the way local economies relate to outside forces (Cox 1997; Gibson et al. 2000). Virtually everything that touches a small place, such as Luxembourg, can be categorized as incipient globalism; but with a country as large as the United States, most economic relations are domestic. California's economic history extends outward to the Pacific Coast,

New York and Washington, DC, as well as to Canada, across the Pacific, and south of the border. Indeed, California is so large that key long-distance ties have even been between its own cities.

A third puzzle is how to calibrate economic trajectories over time. Is California's economy more globalized than before? One cannot trace a simple rising line from regional to national to global economic integration, because all three have been operative from the beginning. No doubt the intensity of global reach has deepened in many ways, but there have been reversals. What about the losses of such key links as precious metals export, the wheat trade, or Bank of America? Moreover, the intensity of globalism has waxed and waned. World-shaking events, from American continental conquest to war in the Pacific, have triggered makeovers in California; yet the state also shared in the worldwide involution of the interwar period.

A fourth quandary is to determine the sources of growth in one place within a global economy. What is the leading factor in regional development: agriculture or industry, exports or the home market, local firms or branch plants? The local economy may prosper thanks to the opportunities created by global demand, foreign investment, or new technologies. Conversely, it may suffer from indebtedness to outside capitalists, declining terms of trade, and technical backwardness. California was a classic resource periphery that could have been bled of its wealth in the manner of Peru or West Virginia; yet it was able to turn gold and silver into capital; adventurers and plunderers into industrialists; Argonauts and immigrants into creative workers; and distance from global centers of capitalism into room to maneuver. Global connections are a necessary but insufficient explanation for California's success; internal social relations were the real crucibles of growth (Page & Walker 1991; Walker 2001).

The last warning for historians and economic geographers is to recognize that localities can change the world. The prevailing view has long been that global expansion from the European core merely added territory to the world system without shaking up the hierarchy of places, and without injecting anything particularly new into the system: Britain conquers India and subordinates it to European imperialism; America expands westward but New York remains on top; Japan industrializes but remains a secondary power in world capitalism. A different view of things has taken hold of late, in which peripheries can be hotbeds of innovation, and empires rise and fall (Storper & Walker 1989; Arrighi 1994). This is certainly the case for California, which has had any number of decisive impacts on the world economy, from quicksilver to filmmaking to microelectronics.

We must consider all these puzzles as we define and outline global California.

The Golden Globe

Alta California became part of the global system as soon as the Spanish moved northward in the 1770s to consolidate their claim to this piece of earth, in opposition to the other, fast-approaching European empires. The Missions established by the Spanish created little economic traffic with the outside world, but the native peoples no doubt felt that the globe had fallen on them. Trade began to quicken after Mexican independence in 1821, when a commercially minded *ranchero* class started shipping out hides and tallow, mostly to the eastern United States. Hudson's Bay Company set up office in San Francisco, and Boston merchants made it a regular port of call. Quicksilver was soon added to California's exports, after the discovery of New Almaden mine near San José (Francis 1976).

British, American, and other adventurers trickled in with the rivulets of commerce (often via Latin America), marrying Mexicans, setting up trading posts, and exporting beaver pelts. By 1840, California had become a prime target of the upstart United States as it consolidated its grip on the North American continent. Saber-rattling President Polk started a war with Mexico in 1844 in large part to gain access to Pacific ports and seize the mineral riches of the Far West; Mexico was forced to cede one-third of its territory to the great blond beast of the north (Harlow 1982). But nothing thus far could have prepared California for the deluge of globalization to come.

With the Gold Rush of 1848–55, California was propelled into the global spotlight. Miners poured in from all corners of the world, while gold flowed out in quantities not seen since the Spanish conquest of the Andes: \$1 billion in the first 20 years (Walker 2001). The US economy, previously suffering from lack of specie, found itself awash in liquidity. California gold went on to lubricate the wheels of Victorian transatlantic commerce. In the 1860s, Nevada silver flooded the world, helping to finance the Civil War, and eventually driving the USA and Europe firmly onto the gold standard (Doti & Schweikart 1991).

Quicksilver was California's third leading metal export, and had a dramatic effect on the global production of precious metals. California mercury made up over half the world's production from 1850 to 1880 and broke the Rothschilds' Old World cartel. The New Almaden mine was itself international: developed by a Mexican, bought by an Anglo-Mexican company, then taken over by Boston capitalists (St. Clair 1994).

Mining fortunes created California's first large banks and led to San Francisco's emergence as a new pole of accumulation in the world system. San Francisco became the financial hub of the West. San Francisco also served as a regional sub-center in the nineteenth-century global financial

network centered in London, with direct links to Paris, Berlin, Tokyo, Montreal, Bombay, Vancouver, and Hong Kong. The San Francisco Mining Exchange briefly surpassed New York as the largest stock market in the world during the Comstock bubble of the early 1870s (Carlson 1942).

San Francisco capitalists reigned over an extractive empire stretching from Alaska to Mexico. San Francisco used its mercantile network, transportation system, and financial clout to bring the western United States under its hegemony. Merchants sent agents from Seattle to Phoenix, while the Central (Southern) Pacific "Octopus" spread its tentacles throughout California and the Southwest. With 150,000 people by 1870, the city had become one of the 10 largest cities in the country (Pomeroy 1965; Issel & Cherny 1986).

San Francisco was by far the chief Pacific coast port in the nineteenth century, and dominated traffic to northeast Asia. Hawaii was the linchpin of San Francisco's empire in the Pacific, and its sugar kings held the islands in thrall by the 1880s (Adler 1966; Brechin 1999). Great steamship companies grew up to ply the Pacific routes, especially Pacific Mail (owned by Southern Pacific), Dollar Lines and Matson Lines (a spin-off from Spreckels' Sugar). The city was the nation's fourth largest foreign trade entrepôt by 1890 (Issel & Cherny 1986).

California mining technology fanned out across the globe. Mining equipment built by San Francisco machine shops was shipped around the world (Bailey 1996). Explosives fabricated in the East Bay were used in mines from Alaska to Spain. Mining engineers such as John Hays Hammond became major international consultants. After a brief period advising British investors in the western United States, Herbert Hoover became the key engineer in the West Australian fields, worked in China, founded the Zinc Corporation (Rio Tinto), and rose to prominence as a technical advisor to London's global mining investors before World War I.

By the 1880s, agriculture had become the leading edge of the California economy. It took root in the 1860s with the wheat trade, which made up two-thirds of non-mineral exports during the 1870s and 1880s (Paul 1973). Wheat also supported a vigorous farm machinery sector of considerable ingenuity, while cattle and meatpacking spawned the first agribusiness corporation in America (Iglar 2001). Fruit surged ahead as the state's leading cash crop by 1890, because canning and drying made California produce saleable around the world. The North Bay became America's leading wine region, and city merchants shipped in bulk to Britain (Walker 2004a).

California's economy rapidly diversified from the Civil War onward (Issel & Cherny 1986). By 1870, San Francisco produced more manufactured goods than all other western cities combined and dominated the regional market. San Francisco industry was force-fed with locally accumulated

capital (Trusk 1960) and benefited from a high level of skilled labor and innovation. Educated Americans and Europeans (chiefly British, Germans, Scandinavians, and northern Italians) poured into San Francisco to partake of its high wages and burgeoning labor demand. The city reached extraordinary proportions of foreign-born, highest in the United States in the post-Civil War era (Kahn 1979). California's wealth of capital and human talent unleashed the same process of technical change we still see today in Silicon Valley (Walker 2001).

Los Angeles Forges Ahead

As the US economy surpassed Britain's by the end of the nineteenth century, the country began to eye overseas trade and territory. San Francisco's leading burghers promoted the city as the American Gateway to the Pacific and Asia. Yet these lofty imperial ambitions were soon checked by global rivalry with Japan and revolution in China. Overall, California turned inward to concentrate on its deepening powers of production and consumption, with upstart Los Angeles leading the way in a period of rapid industrial ascent.

San Francisco capitalists especially coveted the Philippines, a ripe fruit among the dead branches of Spanish colonialism. William Randolph Hearst – who turned his father's mining fortune into a publishing empire – helped trump up war with Spain in 1898. Several of the warships that turned Manila to flame were built in San Francisco and the scorched-earth war against Philippine rebels was directed from the Presidio, while the commander in the field was Oakland's General Arthur MacArthur (Brechtin 1999). The bloodletting took the gloss off the imperial adventure, however.

California capitalists also cast covetous eyes on Mexico, making major investments in railroads, mines, and farms during the *Porfiriato* (Coatsworth 1981). These incursions contributed to mass peasant displacement and disgruntlement which helped trigger the Revolution of 1910–17. Hearst once more turned up the volume on his media empire in a vain effort to have the United States take control of Mexico; but the national agenda was absorbed by recession and European conflagration (Brechtin 1999).

San Francisco had climbed to the nation's seventh largest metropolis by 1900, with 350,000 plus 50,000 more in Oakland, but its reach was exceeding its grasp. To make matters worse, the city was destroyed by the earthquake and fire of 1906. It was rebuilt furiously in hopes of recovering lost business, but would never recover its primacy. San Francisco faced sharp competition from upstart cities such as Seattle and Portland (Kahn

1979). Locally, the city was losing industry and residents to Oakland, the second city of the metropolitan area (Scott 1983; Walker 2004b). But it did retain its primacy in finance, with the biggest banks, most international connections, and a stock exchange, as well as the Federal Reserve Bank for the Western District.

Above all, Los Angeles was awakening. The arrival of the Santa Fe and Southern Pacific railroads triggered a land rush in the 1880s, and LA built itself an artificial port. Eastern migrants began to arrive in large numbers and Southern California found an agricultural base shipping citrus east (Tobey & Wetherell 1995). But the springboard for Southern California's ascendance was black gold. Over the first 30 years of the twentieth century, California was the leading oil-producing region in the United States (which contributed two-thirds of world output between the world wars), peaking at about 20 percent of world production in the 1910s. Los Angeles leapfrogged over San Francisco-Oakland to become the largest metropolis in the west by 1910 with over 650,000 people.

California oil did not travel far; most was consumed within the state, with a small amount exported to China and the East Coast. Instead, California became a major site of experimentation in the uses of petroleum. Industry and transport learned to use fuel oil instead of coal, setting an example for the world (Johnson 1970). Asphaltic crude was put to good use paving the highway system and natural gas funneled into domestic use in the cities.

A most potent symbol of California's global reach at the time was the Panama Canal, celebrated in the twin Panama-Pacific International Exhibitions of 1915 in San Francisco and San Diego. The fairs were linked up by the longest paved highway of the day, the 500-mile El Camino Real. Panama's narrows had first come under San Francisco's suzerainty during the Gold Rush (Lewis 1949), yet Los Angeles benefited more from the canal because its port is a day's voyage closer. San Diego, meanwhile, wrested the Navy's new Pacific Fleet away from San Francisco Bay, and finally found a sustained economic base (Lotchin 1992). San Francisco's leadership in shipping and naval installations was blindsided by internal rivals.

Between the Wars

By the 1920s, California came to lead the nation, and the world, in agricultural productivity, agro-processing, farm organization, and marketing. The state developed the world's largest concentration of canneries, the most modern agro-corporations and cooperatives, the most advanced

system of
grocery c
fresh fruit
the 1920s
Two Cali
tractor (1
the subm
and produ

Los An
Area in p
million pe
Signal Hi
fueled by
dug up in
at a rapid
moved we
rapidly af
airplane i
these year
and parts
modest r
markets (
Angeles v
majority c
ings, foot

Califor
and bridg
world war
stance of
skilled we
invented
partnered
Atkinson

Oaklan
leading th
world's fi
River in t
projects, s
oil pipelin
means of
was still d
in Cuba i
also bred

its to Oakland, the
ker 2004b). But it
most international
l Reserve Bank for

f the Santa Fe and
880s, and LA built
e in large numbers
ipping citrus east
uthern California's
twentieth century,
nited States (which
orld wars), peaking
Los Angeles leap-
gest metropolis in

d within the state,
oast. Instead, Cali-
uses of petroleum.
of coal, setting an
e was put to good
. into domestic use

t the time was the
ternational Exhibi-
irs were linked up
e El Camino Real.
suzerainty during
ed more from the
Diego, meanwhile,
Francisco Bay, and
!). San Francisco's
dsided by internal

the world, in agri-
n, and marketing.
of canneries, the
ie most advanced

system of contracting, and the biggest supermarkets and most modern grocery chains. California agribusiness continued its conquest of national fresh fruit and vegetable markets, and grabbed cotton from the South in the 1920s. Raisins, canned asparagus, and other delicacies went to Europe. Two California agricultural innovations changed the world: the caterpillar tractor (1904), soon converted to tanks and earth-moving machines, and the submersible electric pump (1905), invented in Ohio but generalized and produced here (Walker 2004a).

Los Angeles continued its spectacular growth, and had doubled the Bay Area in population by the end of the "roaring twenties," with over 2.5 million people in the metropolitan area. With huge new oil discoveries at Signal Hill and Huntington Beach, the Southern California economy was fueled by \$6 billion in oil wealth by 1930 – twice the total mineral riches dug up in Northern California (Walker 2001). Industrialization proceeded at a rapid clip in Los Angeles. The blockbuster industries were film, which moved west from New York in the 1910s; motor vehicles, which expanded rapidly after World War I; and aircraft, on the basis of the single-winged airplane invented by David Douglas in the early 1920s (Hise 2004). In these years, however, Hollywood movies did not yet circle the globe, cars and parts were for the western market, and airplanes were still made in modest numbers. Two-thirds of LA's manufacturing went to regional markets (Calkins & Hoadley 1941). Indeed, the striking thing about Los Angeles was the way local growth created its own market, absorbing the majority of output from local industry, whether for oil equipment, furnishings, foodstuffs, or vehicles (Hise 2004).

California led the nation's way in large-scale construction, from pipelines and bridges to highways and housing tracts, in the period between the two world wars. A ferocious rate of growth had much to do with the innovative stance of local firms, but so did a tradition of engineering achievement, skilled work, and bravado that accepted new challenges. The bulldozer was invented by Robert LeTourneau of Stockton in the 1920s, who then partnered with Henry Kaiser (Wilson & Taylor 1957; Fluor 1978; Atkinson 1985).

Oakland's Henry Kaiser and Warren Bechtel soared above the rest after leading the consortium of eight firms ("the Six Companies") that built the world's first high-arch concrete dam at Boulder Canyon on the Colorado River in the early 1930s. That success was followed by a stream of major projects, such as Bonneville and Grand Coulee dams on the Columbia and oil pipelines in Canada and Texas, mostly carried out by the innovative means of recombinant joint ventures (Tassava 2003). Most of the work was still domestic, although there were already forays internationally (Kaiser in Cuba in the 1920s and Bechtel in Venezuela in the 1930s). California also bred the first large-scale housing developers in the interwar period,

such as Henry Dolger of San Francisco, Walter Leimert of Oakland and Los Angeles, and Arthur Burns Homes of Los Angeles.

The rise of A. P. Giannini and his Bank of Italy is the leading example of California's amazing accumulation of capital in the twentieth century. Bank of America (as it was renamed in 1929) grew along with the region, gathering in the savings of the state of California and lending to businesses and consumers to grease the wheels of development (Nash 1992). Giannini's empire rested on aggressive use of branch banking and a willingness to risk lending to small borrowers and large companies with big ideas. By 1940, Bank of America was the biggest bank in the world and San Francisco the second banking city in the United States (Borchert 1978).

External ownership in California never amounted to more than perhaps one-quarter of industrial holdings, and branch plants were not the basis of manufacturing growth (Trice 1955). San Francisco retained its key banks, including Wells Fargo, Crocker, and Anglo, and developed its own investment banks, led by Blyth and Witter (who underwrote the growth of PG&E). California petroleum was locally and widely owned (helped by the breakup of Standard Oil in 1911), and did not fall into the hands of the majors until the 1930s. When buyouts did occur, the argument can just as well be made that eastern capital was buying into California's strengths and its burgeoning markets; and many acquired companies kept their headquarters, purchasing, and decision making in the state.

California's oil industry had a decisive global impact as it moved offshore in the 1930s. Local engineers, such as Ralph Arnold, helped to open up oil fields around the world. Most significantly, Standard Oil of California opened up the Persian Gulf oil fields with discoveries at Bahrain and Saudi Arabia in 1932-3, revolutionizing the geography of global oil and politics. Lacking distributors in the eastern hemisphere, Standard joined with Texas Oil (Texaco) to form Cal-Tex and Aramco to exploit the enormous Gulf fields.

Wartime Powerhouse

The global calamity of World War II pushed California once again to the front of the world's stage. The crucial geographic fact was the global shift marked by the war in the Pacific. The West Coast was the staging area for the Pacific theater, with the Bay Area as its pivot. Like another gold rush, the war brought 10 percent of federal wartime expenditure to the state, including 38.5 percent of all continental US military construction (Brubaker 1955). It also channeled millions of people through California bases, ports, and war industries - many of whom came back to stay (Johnson 1993; Sides 2003). Conversely, it led to the dispersal of Japanese

Americans, who over the western

California w spending did n (Rhode 1994) industrialization Army and Navy federal spending well the art of 1997; Brechin south, and elec garments, agric government.

The greatest in Los Angeles mous factories Los Angeles's i surging toward the west side (War militarizat letup, bringing through the re

The war was from tunnels Hawaii (Adam: for merchant the world has another 150,00 building, they Fordist type so 2003). By the industrialists ir was building a Gulf. Californi would prove e North Sea.

World War the limelight i players overnig and sonar. By Area before jur missile electron The Bay Area

rt of Oakland and
 ie leading example
 twentieth century.
 ig with the region,
 iding to businesses
 ash 1992). Gianni-
 ; and a willingness
 es with big ideas.
 he world and San
 (Borchert 1978).
 more than perhaps
 re not the basis of
 ined its key banks,
 ped its own invest-
 ote the growth of
 ned (helped by the
 o the hands of the
 argument can just
 lifornia's strengths
 panies kept their
 tate.
 ; it moved offshore
 helped to open up
 d Oil of California
 Bahrain and Saudi
 al oil and politics.
 joined with Texas
 he enormous Gulf

once again to the
 as the global shift
 s the staging area
 Like another gold
 expenditure to the
 litary construction
 through California
 ame back to stay
 persal of Japanese

Americans, who were ignominiously shunted into concentration camps all over the western United States (Daniels 1977).

California was ready to seize the new opportunities of wartime. Federal spending did not flow to an empty land, making an economic desert bloom (Rhode 1994). Instead, California had already reached a high level of industrialization, and its leading sectors would have attracted millions in Army and Navy contracts regardless of the transects of global warfare and federal spending. But California capitalists and politicians had learned very well the art of milking the Feds for government aid and contracts (Adams 1997; Brechin 1999). The key beneficiaries were aircraft and movies in the south, and electronics and construction in the north, but oil companies, garments, agribusiness, steel, vehicles, and machinery all sold well to the government.

The greatest of the war stories was the build-up of aircraft manufacture in Los Angeles. Douglas, Hughes, Northrop, and others operated enormous factories employing hundreds of thousands of workers (Scott 1993). Los Angeles's explosive growth knew no rival, with its metro population surging toward five million, and a huge crescent of development added to the west side (Hise 1997). After a brief pause, the Korean War and Cold War militarization kept feeding the fires of Southern California without letup, bringing close to one-quarter of all defense contracts to the state through the rest of the twentieth century.

The war was good for construction companies, who tackled everything from tunnels to dry docks, and grabbed contracts from Panama to Hawaii (Adams 1997). Kaiser and Bechtel-McCone won huge contracts for merchant ships, converting California into the biggest shipyard the world has ever seen (some 200,000 workers in the Bay Area, plus another 150,000 in Los Angeles and Portland). Knowing little about shipbuilding, they put into effect revolutionary mass-production systems of the Fordist type so as to be able to produce ships in record time (Tassava 2003). By the end of the war, Kaiser had become one of the biggest industrialists in the world (Foster 1989). Meanwhile, Bechtel-McCone was building a dozen refineries around the world, including in the Persian Gulf. California oilmen invented offshore drilling in the 1940s, which would prove essential to opening up new supplies from Louisiana to the North Sea.

World War II brought a new generation of West Coast whizkids into the limelight in electronics. Hewlett-Packard and Varian became major players overnight thanks to their advanced technology in tubes for radar and sonar. By the Korean War, Lockheed (which had started in the Bay Area before jumping to Los Angeles) had moved its enormous aircraft and missile electronics operations back to the South Bay (Schoenberger 1997). The Bay Area and Los Angeles were partners in crime in creating the

technology for the military-industrial complex that ruled the Cold War world (Lowen 1997; Brechin 1999).

The Great Postwar Boom

Microelectronics became a significant engine of growth for California, especially the Bay Area, in the postwar era. Silicon Valley had seized hold of global leadership in the technology of micro-circuitry on a chip in the 1950s and 1960s, as semiconductor firms begat new semiconductor firms in ever-new rounds of spin-offs. Mainframe and mid-sized computers, and their key parts, became specialties of the Valley, along with medical and scientific instruments and aerospace guidance systems. The leading companies of the Valley, such as Fairchild, Intel, National, Amdahl, and Hewlett-Packard, clambered high in the Fortune 500. These, in turn, set up global operations, from assembly houses in Southeast Asia to computer and components plants in Silicon Glen, Scotland – pioneering the new global division of labor by the late 1960s (Rogers & Larsen 1984; O'Mara 2004).

After the war, California construction companies went international in a big way, building railroads, dams, smelters, refineries, and pipelines along lines laid down at home (Wilson & Taylor 1957). Guy Atkinson, Utah Construction, Kaiser Engineers, and Morrison-Knudson (their international office was in San Francisco) were active in a score of countries, chiefly in Latin America and the Middle East. Bechtel had become the world's largest engineering firm by the 1970s (Strassman & Wells 1982). In the 1980s, two Bechtel directors, George Schultz and Caspar Weinberger, garnered the most powerful positions in the Reagan cabinet, the better to oversee the global dominions of the American empire (McCartney 1989).

Henry Kaiser's attention had turned to heavy industry by war's end, when he decided to dive into the automobiles and household appliance sector. Kaiser Industries put the first auto plants in Brazil and Argentina in the mid-1950s. In keeping with the shift to industrialist, Kaiser shifted from the ad hoc and joint venture modes of organization to a more standard divisional corporation (Tassava 2003). But Kaiser-Fraser was defeated by the "Big 3" automakers, and shut down in 1954 (Hoffman 1992).

California agribusiness began a new wave of globalization after the war. Del Monte (CalPak) was the world's largest agro-processing firm and Safeway the world's fastest-growing supermarket chain, and the largest during the 1970s and 1980s. Del Monte set up its first canneries outside the Pacific basin in the 1950s, in South Africa and Italy, expanding into Britain, Kenya, Venezuela, and Mexico in the next decade. Safeway went

to Europe and Australia. More pattern for indi

The Bay Area and E. O. Lawrence, bringing millions of the US government the Manhattan and Pacific Gas "ful atom" campaign power plants w

By the end of Asia and Europe York. San Francisco 1950s even though had almost no Security and National California banks we could be counted alone held 45 (1991)), and San (Borchert 1978 in 1959, which Another group the Master Chamber in consumer cr

The postwar nia, mostly from the wave to become 20 million had hit almost

By 1970, the coming first from But California of the country in the recession rose, California direct investment grabbed over 1

to Europe and Latin America, while J. G. Boswell was growing cotton in Australia. More generally, the California agro-production system set the pattern for industrialized agriculture around the world (Walker 2004a).

The Bay Area was also pivotal in the Faustian pact with atomic energy, and E. O. Lawrence was the uncrowned emperor of Big Physics – leveraging millions of dollars out of local capitalists, the state of California, and the US government to build his cyclotrons – and the driving force behind the Manhattan Project (Brecht 1999). University of California scientists and Pacific Gas and Electric Company also pioneered the so-called “peaceful atom” campaign, but it was a bust and only four commercial nuclear power plants were ever built in California (Wellock 1998).

By the end of the war, Bank of America was moving aggressively into Asia and Europe, becoming the first international bank outside of New York. San Francisco joined the second tier of global financial centers by the 1950s even though its other big banks, Wells Fargo and Crocker-Anglo, had almost no overseas presence (Reed 1981). Los Angeles’s banks, led by Security and National, were entirely domestic. Nonetheless, because California banks were the most concentrated in the United States, four of them could be counted among the top dozen in the country (Bank of America alone held 45 percent of California savings in 1959 (Doti & Schweikart 1991)), and San Francisco leapt to second place among US banking centers (Borchert 1978). Bank of America introduced the first universal credit card in 1959, which soon swept the nation and the world as the Visa system. Another group of California banks, led by Wells and Crocker, followed with the Master Charge (MasterCard), which became the second global standard in consumer credit (Doti & Schweikart 1991: 196).

The postwar boom drew in huge numbers of people to work in California, mostly from the eastern and southern United States. The state rode the wave to become the most populous state by the 1960s, and counted some 20 million people by 1970. In the same year, Greater Los Angeles had hit almost 10 million and the Bay Area was closing in on 5 million.

The Triumph of Electronics

By 1970, the United States was feeling the heat of global competition, coming first from Japan and Germany, later from East Asia (Brenner 2006). But California would prosper in the new era of globalism, even as the rest of the country felt the hammer blows of factory closures and disinvestment in the recessions of the early 1970s, 1980s, and 1990s. As overseas trade rose, California garnered more exports than any other state. As foreign direct investment flooded the United States in the 1980s, California grabbed over half of it (Ettlinger 1991). California companies moved

aggressively into global construction, oil extraction, shipping, and other traditional strengths: Chevron secured concessions in Central Asia; Bechtel built Hong Kong's new airport and a technopolis outside Moscow; Matson became one of the world's largest container shippers.

The late twentieth century brought the age of electronics to fruition. Micro-circuitry moved beyond stand-alone computing and weaponry to revolutionize communications, processing, design, distribution, and retailing. Electronics became the world's largest industrial sector in output and employment. As the United States rebounded smartly from the profit and productivity doldrums of the 1970s and the deep recession of the early 1980s, the bounce came, above all, from high tech, representing 8 percent of GDP and no less than one-third of US economic growth in the 1990s (Brenner 2004: 94). California was both the greatest engine of this change and its greatest beneficiary. Globalization is a wonderful thing when you have what everyone else wants.

Success was by no means assured. In the 1980s, Asian and European competitors were breathing down the neck of Silicon Valley companies, as were Boston's Route 128 and Dallas and Austin, Texas. Japanese mastery of mass production, which had swept aside American producers of consumer electronic goods, was poised to do the same in semiconductors. Doomsayers seemed vindicated as the fire in Silicon Valley turned to ashes in 1984–6, leaving acres of speculative industrial buildings vacant (Kroll & Kimball 1986). But the Valley was already reinventing itself. Standardized semiconductors were shed as unprofitable, replaced by personal computers and pre-programmed specialty chips, as more circuitry was crammed on chips, disk drives became smaller, distributed networks were introduced, and semiconductors began to be designed by computers – led by new companies such as Apple, LSI Logic, Sun, and Silicon Graphics (Saxenian 1994). The Valley also developed the largest concentration of software firms in the world, including Oracle, Adobe, and PeopleSoft.

In the 1990s, Silicon Valley became the home of the internet revolution. Its companies designed more of the equipment for the internet, offered more of the software to run it, and was more densely wired than anywhere else in the world. A new generation of start-ups led the way, such as Netscape, Yahoo, Cisco Systems, and JDS Uniphase. Silicon Valley became the prime example of the new way of doing business in the global age, concentrating engineers, designers, and marketers, while shedding manufacturing offshore and plucking employees from the ranks of temp agencies like home-grown Adia Personnel Services. Upstart internet media like *The Industry Standard* shouted the news from the electronic rooftops: this was the New Economy, simultaneously an historic break with the past and the apotheosis of American entrepreneurialism (Miles 2001; Walker 2006).

Meanwhile, the red-hot 1980s saw two-thirds of C employing over manufacturing next biggest US to international Reagan's unprec in new w (Markusen et a

Hollywood a new gear after as a more open actors, all subco by project. By hundreds of fi became even Australia, and competition, p

With this ran The population 1990 and the County filled ir burgeoned; and suburbanized. surpassed two a major engine people in build

The most st the arrival of mi and East Asia (country's prim (Valle & Torre in Los Angeles and San Diego

A new star v It grew up in t long traditions University of C addition, ventu 1978, showing to attract resea and capitalizati

Meanwhile, Southern California experienced phenomenal growth during the red-hot 1980s (Soja 1986; Davis 1990). Southern California generated two-thirds of California's trillion-dollar economy, with Greater Los Angeles employing over seven million people and housing nearly 15 million. LA manufacturing alone surpassed one million jobs – twice the number of the next biggest US industrial city (even as many old-line industries succumbed to international competition). Leading the charge was aerospace, fed by Reagan's unprecedented peacetime military build-up, which brought billions in new weapons contracts to Greater Los Angeles and San Diego (Markusen et al. 1992; Scott 1993).

Hollywood and the entertainment complex of Los Angeles shifted into a new gear after the studio system was broken up in the 1960s. It retooled as a more open web of interconnected firms, independent directors and actors, all subcontracting film by film, TV series by series, or musical project by project. By the 1980s, it was hitting on all cylinders, churning out hundreds of films a year and generating huge profits. The talent core became even more international, looking beyond Britain to Europe, Australia, and Hong Kong. European filmmaking suffered under the competition, particularly in Italy and Britain (Scott 2005).

With this rampant economic growth, the metropolis exploded outward. The population of Los Angeles County reached nearly nine million by 1990 and the five-county metropolitan area almost 15 million. Orange County filled in; the Inland Empire around Riverside and San Bernardino burgeoned; and even Ventura County and the Antelope Valley to the north suburbanized. San Diego passed one million people and the metro area surpassed two million by 1990. Construction during the boom was itself a major engine of urban growth, employing hundreds of thousands of people in building, finance, and sales.

The most striking effect of the new age of globalization was certainly the arrival of millions of immigrants, mostly from Mexico, Central America, and East Asia (Waldinger & Bozorgmehr 1996). Los Angeles served as the country's primary reception area, changing the face of the city forever (Valle & Torres 2000). By 1990, people of color had become a majority in Los Angeles and one-third of the city was foreign born. The Bay Area and San Diego were not far behind.

A new star was rising in the firmament of the 1980s – biotechnology. It grew up in the Bay Area, Los Angeles, and San Diego, thanks to their long traditions of medical research and infusions of federal money at the University of California, Stanford, and private institutes such as Salk. In addition, venture capital has funded start-ups, starting with Genentech in 1978, showing the usual California verve for entrepreneurship and ability to attract research talent. To this day, California boasts half the revenues and capitalization of US biotech companies, and the Bay Area remains

the leading biotech node in the nation and the world (Zhang & Patel 2005).

Too Fast and Furious

An early sign of financial globalization in California was the influx of overseas bank branches. By 1980, foreign bank subsidiaries were making 35 percent of all business loans in California, compared to 20 percent nationally (Doti & Schweikart 1991: 194). Conversely, Bank of America made a dramatic move into international lending, when it joined in the global euphoria of Eurodollar lending in the 1970s – quadrupling in size and garnering 40 percent of its profits abroad. It syndicated loans from Brazil to Indonesia, laying the basis for the debt debacle of the 1980s. But as loans went sour by the billions, Bank of America nearly collapsed in 1985 (Johnston 1990). San Francisco's #3 bank, Crocker, also nearly failed after being bought out by Britain's Midland Bank, chiefly because of unsound local real-estate lending; it became part of Wells Fargo in 1986.

While the Bay Area sagged after the mid-1980s, the fires of fast finance raged across Southern California for the rest of the decade. The “capital of the twentieth century” was a fool’s paradise of speculation. When the bubble burst in 1989, the wreckage produced the worst depression in California since the 1930s (wrongly blamed on the military cutback alone). Lofty predictions of Los Angeles as the new financial capital of the West were quickly belied by the implosion of its biggest banks. Bank of America recovered to buy LA’s biggest bank, Security Pacific, in 1990 (Smith & Crowley 2000).

Another popular notion was that Japanese capital might take over the state (Davis 1990). By 1988, the Japanese held five of the 11 largest California banks, as well as a host of prime properties, such as Bank of America's downtown Los Angeles skyscraper, Pebble Beach golf course, and San Francisco's Palace Hotel. Nevertheless, the biggest international players in local property development were Canada's Cadillac Fairview and Olympia and York. In any case, the Japanese real-estate bubble imploded and Cadillac Fairview and O&Y went belly up in the early 1990s, proving once again that nothing is secure in the fast-moving world of capital (Stewart 1993).

California is still the second biggest center of financial operations in the United States. The Bay Area remains the state's premier financial center, despite losing Bank of America to North Carolina in 1999. Wells Fargo (merged with Minneapolis's Bank One) is the country's fifth largest bank. The region hosts the largest pool of venture capital in the world and attracts billions from around the globe (Kenney & Florida 2000). The key

DEFINITION

international investment banks of Richard Blumenthal and Robert Stamps, private equity. The decade was fast money. The first popular venture capitalists came to earth. They made up the meteoric rise of the one-third of the world (Walker 2000). The clobbered. The bigger, richer century.

By the end of the 1990s, the price of rice among the poor in Mexico, fell by 50% (Buck 2007). The price of cheaper supplies of rice, the world's #1 food crop (5 times). Of course, the price of rice shrank. But the price of rice more than \$1.00 a bushel double the price of

The state of Los Angeles, covering over one-third of the state's #2, and Oakland, the largest container port, eclipsed San Francisco, formerly Dominick's. Two of the largest of a Singapore of Hawaii).

By the end of the century, just the introduction of new technology will

d (Zhang & Patel

the influx of over-
s were making 35
20 percent nation-
of America made a
ned in the global
upling in size and
l loans from Brazil
the 1980s. But as
collapsed in 1985
o nearly failed after
ecause of unsound
in 1986.

fires of fast finance
cade. The "capital
ulation. When the
orst depression in
ary cutback alone).
capital of the West
s. Bank of America
in 1990 (Smith &

ight take over the
he 11 largest Cali-
Bank of America's
f course, and San
national players in
view and Olympia
ble imploded and
90s, proving once
world of capital

l operations in the
er financial center,
1999. Wells Fargo
fifth largest bank.
world and attracts
2000). The key

international players are no longer the commercial banks but boutique investment houses generating billions in high-stakes funds, led by the likes of Richard Blum, Warren Hellman, and George Roberts (Kohlberg, Kravis, and Roberts' 1988 purchase of Nabisco launched the era of big-time private equity buyouts).

The decade of the 1990s saw the Bay Area take its turn playing fool to fast money. In the years after the 1995 public offering of Netscape, the first popular internet search engine, Bay Area companies absorbed more venture capital and more speculative stock investment than any place on earth. They became the premier target of investors flush with cash from the meteoric rise of the NASDAQ and other exchanges, taking on nearly one-third of the \$7 trillion rise of all US equities from 1995 to 2000 (Walker 2006). When that bubble collapsed, the Bay Area economy was clobbered. Los Angeles, in the meantime, had risen from the dead looking bigger, richer, and more cosmopolitan than ever by the end of the century.

At the Global Crossroads

By the end of the century, global outsourcing had become standard practice among American manufacturers, with subsidiaries and subcontractors in Mexico, East Asia, and from the new powerhouse, China (Walker & Buck 2007). California companies were again among the leaders in seeking cheaper supplies abroad, with The Gap riding the strategy to become the world's #1 fashion retailer (Levi's, which bucked the trend, fell on hard times). Of course, the US trade deficit shot up wildly and US manufacturing shrank. But California did very well from international trade, exporting more than \$100 billion in goods, more than any other state, by 2000 – double the total of 1980.

The state also gained from the wave of imports. Traffic through the ports of Los Angeles-Long Beach doubled through the 1990s and was carrying over one-third of all US containers in the 2000s (LA ranks #1, Long Beach #2, and Oakland #7 in the country). LA-Long Beach ranks as the fifth largest container port in the world (after four Chinese cities). With the eclipse of San Francisco's port by Oakland, American President Lines (APL; formerly Dollar) and Matson moved across the bay; they also grew into two of the largest container shippers in the world (APL is now a subsidiary of a Singapore company and Matson is owned by Alexander and Baldwin of Hawaii).

By the end of the millennium, electronics was spinning new webs – not just the internet, but webs of worldwide production, innovation, and technology transfer. California remains deeply embedded in a largely

transpacific network that dominates global high tech, with Silicon Valley still the chief nerve center. One major development was the vast improvement of production capabilities in East Asia beyond Japan: Korea, Taiwan, Singapore, and beyond. This meant that the finest producers for a range of components for computers and IT systems were now to be found outside the United States. American companies moved upstream to product design and systems engineering, while subcontracting parts and assembly to the Far East (Dedrick & Kraemer 1998; McKendrick et al. 2000).

Hollywood remained king of global entertainment in the new millennium, but faced new challenges (Scott 2005). One was external buyouts, such as Sony's purchase of Columbia, and Time, Inc.'s merger with Warner Brothers. Another was the growing popularity of Asian films produced in Hong Kong and Bombay, which turn out more films per year than American companies. Hollywood producers also faced rising costs, leading them to seek out cheaper locations, particularly in Canada, where acting talent is abundant, prices lower, and cities tidier. Southern California's entertainment industry faced a different challenge from Northern California's electronic gamers (now earning as much revenue as films) and the file-sharing revolution (MP3, iPod, YouTube). On the other hand, computer animation has injected new life into Hollywood fantasy films, starting with *Star Wars*' special effects, then with cartoons by Pixar. The new entertainment age is yet another marriage of Bay Area and Southern California industry and talent.

One of the largest employers in California today is tourism. Eighty percent of travelers come from within state, but that still leaves 50 million out-of-staters who visit every year and more than 14 million foreigners (one-fifth of all international travelers to the United States). The Bay Area and Los Angeles County each boast around 100,000 hotel rooms. Only Las Vegas and New York City have more, but Greater LA has more visitors annually than either. The Disney theme park has been cloned around the world – at Disney World in Florida, EuroDisney, Disney Japan, and most recently Disney Hong Kong (Watts 1997).

Agribusiness is no longer the leading edge of California development, but it remains a huge segment of the state's economy. California is still the world's largest producer of fresh vegetables, strawberries, raisins, and processing tomatoes, though its hegemony in fresh fruits has been broken by Florida and Texas and winter produce coming from as far away as Chile and New Zealand. A globalized agro-export system has increased competition from companies operating on principles first developed in California: high-input, high-intensity farming organized by contract system and huge agribusiness corporations. California growers have responded in two ways: by moving into higher-value crops and products, such as tropical fruits, exotic greens, and wine; and by exploiting overseas markets more

intensively, such as Hong Kong, where, for example, quadruple the domain has been thousands of its undocumented

With the economic population concentration in the quarter of California's Clara counties, the economy was becoming important. For was dominated who had their f

Clearly, global prospects. Non-tion is a challenge well prepared to making what was ment, credit card extraordinarily of the pack. In been these: a full capitalization of ment in productivity elementary activities labor, including in the crucible: capital would have opportunity strictly. None of this hand with the s the opportunity fact fundamental: the global jugg become the wo

Adams, Stephen.
Entrepreneur.
Adler, Jacob. 19
versity of Haw

with Silicon Valley
the vast improve-
an: Korea, Taiwan,
ducers for a range
now to be found
pstream to product
parts and assembly
k et al. 2000).

n the new millen-
external buyouts,
erger with Warner
films produced in
r year than Ameri-
osts, leading them
where acting talent
ifornia's entertain-
California's elec-
nd the file-sharing
computer anima-
starting with *Star*
new entertainment
California industry

s tourism. Eighty
l leaves 50 million
million foreigners
es). The Bay Area
otel rooms. Only
has more visitors
doned around the
y Japan, and most

nia development,
alifornia is still the
; raisins, and pro-
is been broken by
far away as Chile
ncreased competi-
ped in California:
tract system and
responded in two
, such as tropical
eas markets more

intensively, such as shipping oranges and rice to Japan, table grapes to Hong Kong, wine to Canada, and almonds worldwide. Wine exports, for example, quadrupled from 1980 to 2000. Growth in this labor-intensive domain has been so formidable that demand has drawn in hundreds of thousands of immigrants from Mexico, over 90 percent of whom are undocumented (Walker 2004a).

With the economic boom of the second half of the 1990s, California's population continued to grow, hitting 33 million by 2000. Over one-quarter of Californians were foreign born; LA, San Francisco, and Santa Clara counties were all over one-third foreign born. While the state's economy was boosted by poor immigrants, skilled newcomers were just as important. For example, the new generation of electronic entrepreneurs was dominated by immigrants from Taiwan, Singapore, China, and India, who had their feet planted on both sides of the Pacific (Saxenian 2006).

Clearly, globalism has impinged repeatedly on California's economic prospects. Nonetheless, the central lesson one can draw is that globalization is a challenge from which a local economy can profit mightily, if it is well prepared by history and geography. Indeed, it can lead the way, making what was local into what becomes global, whether mining equipment, credit cards, or search engines. To do that, California has had to be extraordinarily good at what it does and to innovate its way to the head of the pack. In the global competitive race, the state's key advantages have been these: a fully capitalist society from the outset; rapid exploitation and capitalization of natural resources; accumulation of capital locally; reinvestment in production, research, and education; an agglomeration of complementary activities; and – most of all – an exceptional wealth of human labor, including the talents brought by in-migrants and those developed in the crucibles of dynamic industries (Walker 2001). Both labor and capital would have done less, of course, without the relatively egalitarian opportunity structure and the vigorous ideology of openness and possibility. None of this forgives the exploitation and conquest that went hand in hand with the success (so obviously tilted to white men), only to say that the opportunity of the few was relatively large, and not squandered. This fact fundamentally sets California apart from less fortunate places facing the global juggernaut of capital. To an amazing degree, California had become the world.

REFERENCES

- Adams, Stephen. 1997. *Mr. Kaiser Goes to Washington: The Rise of a Government Entrepreneur*. Chapel Hill: University of North Carolina Press.
- Adler, Jacob. 1966. *Claus Spreckels: The Sugar King in Hawaii*. Honolulu: University of Hawaii Press.

- Arrighi, Giovanni. 1994. *The Long Twentieth Century: Money, Power and the Origins of Our Times*. London: Verso.
- Atkinson, Ray. 1985. *The Guy F. Atkinson Company of California: A Free Enterprise Success Story*. New York: Newcomen Society of the United States.
- Bailey, Lynn. 1996. *Supplying the Mining World: The Mining Equipment Manufacturers of San Francisco, 1850–1900*. Tucson: Westernlore Press.
- Becker, Jules. 1991. *The Course of Exclusion, 1882–1924: San Francisco Newspaper Coverage of the Chinese and Japanese in the United States*. San Francisco: Mellen Research University Press.
- Borchert, John. 1978. "Major Control Points in American Economic Geography," *Annals of the Association of American Geographers* 68 (2): 214–32.
- Brechin, Gray. 1999. *Imperial San Francisco: Urban Power, Earthly Ruin*. Berkeley: University of California Press.
- Brenner, Robert. 2004. "New Boom or New Bubble? The Trajectory of the US Economy," *New Left Review* 25: 57–99.
- Brenner, Robert. 2006. *The Economics of Global Turbulence*. London and New York: Verso Press.
- Brubaker, Sterling. 1955. *The Significance of Military Installations for California's Economic Growth, 1930–52*. San Francisco: Bank of America Economics Department.
- Calkins, Robert and Hoadley, Walter. 1941. *An Economic and Industrial Survey of the San Francisco Bay Area*. Sacramento: California State Planning Board.
- Carlson, Wallin. 1942. "A History of the San Francisco Mining Exchange." Unpublished Master's Thesis, Department of Economics, University of California, Berkeley.
- Coatsworth, John. 1981. *Growth Against Development: The Economic Impact of Railroads in Porfirian Mexico*. DeKalb, IL: Northern Illinois University Press.
- Cox, Kevin, ed. 1997. *Spaces of Globalization*. New York: Guilford.
- Daniels, Roger. 1977. *The Politics of Prejudice: The Anti-Japanese Movement in California and the Struggle for Japanese Exclusion*, 2nd edn. Berkeley: University of California Press.
- Davis, Mike. 1990. *City of Quartz: Excavating the Future in Los Angeles*. London: Verso.
- Dedrick, Jason and Kraemer, Kenneth. 1998. *Asia's Computer Challenge*. New York: Oxford University Press.
- Dicken, Peter. 2007. *Global Shift: The Changing Contours of the Global Economy*, 5th edn. London: Guilford Press.
- Doti, Lynne and Schweikart, Lawrence. 1991. *Banking in the American West*. Norman: University of Oklahoma Press.
- Erie, Steven. 2004. *Globalizing L.A.: Trade, Infrastructure and Regional Development*. Stanford, CA: Stanford University Press.
- Ettlinger, Nancy. 1991. "The Roots of Competitive Advantage in California and Japan," *Annals of the Association of American Geographers* 81 (3): 391–407.
- Fluor, J. Robert. 1978. *Fluor Corporation: A 65-Year History*. New York: Newcomen Society of North America.

- Foster, Mark. 1997. *The Great American West*. Austin: University of Texas Press.
- Francis, Jesse. 1997. *San Francisco, 1822–1848*. Berkeley: University of California Press.
- Gibson, Clark. 1997. *The Human Condition*. Berkeley: University of California Press.
- Harlow, Neil. 1997. *San Francisco, 1850*. Berkeley: University of California Press.
- Hirst, Paul. 1997. *The World as City*. Cambridge: Cambridge University Press.
- Hise, Greg. 1997. *Metropolis*. Berkeley: University of California Press.
- Hise, Greg. 2007. *San Francisco, 1850–1900*. Berkeley: University of California Press.
- Hock, Dee and Hise, Greg. 1997. *San Francisco, 1850–1900*. Berkeley: University of California Press.
- Hoffman, Elizabeth. 1997. *Brazil*. New York: Oxford University Press.
- Igler, David. 2007. *San Francisco, 1850–1900*. Berkeley: University of California Press.
- Issel, William. 1997. *San Francisco, 1850–1900*. Berkeley: University of California Press.
- Jackson, W. 1997. *San Francisco, 1850–1900*. Berkeley: University of California Press.
- Johnson, Arth. 1997. *Historical San Francisco*. Berkeley: University of California Press.
- Johnson, Mari. 1997. *War II*. Berkeley: University of California Press.
- Johnston, Mo. 1997. *American Business*. Berkeley: University of California Press.
- Kador, John. 1997. *Reinvented*. Berkeley: University of California Press.
- Kahn, Judd. 1997. *City, 1897–1900*. Berkeley: University of California Press.
- Kenney, Marti. 1997. *Fueling Nevada*. Stanford: Stanford University Press.
- Kroll, Cynthia. 1997. *Estate Industries*. Berkeley: University of California Press.
- Lewis, Oscar. 1997. *California*. Berkeley: University of California Press.

ney, Power and the
 ornia: A Free Enter-
 nited States.
 g Equipment Manu-
 e Press.
 Francisco Newspaper
 an Francisco: Mellen

 onomic Geography,"
 214-32.
 wer, Earthly Ruin.

 Trajectory of the US

 : London and New

 tions for California's
 America Economics

 nd Industrial Survey
 : Planning Board.
 Mining Exchange."
 nics, University of

 he Economic Impact
 t Illinois University

 ulford.
 panese Movement in
 Berkeley: University

 Los Angeles. London:

 iter Challenge. New

 the Global Economy,

 the American West.

 nd Regional Develop-

 ge in California and
 81 (3): 391-407.
 History. New York:

- Foster, Mark. 1989. *Henry Kaiser: Builder in the American West*. Austin: University of Texas Press.
- Francis, Jesse. 1976 [1935]. *An Economic and Social History of Mexican California, 1822-1846*. New York: Arno Press.
- Gibson, Clark, Ostrom, Elinor, and Ahn, T. K. 2000. "The Concept of Scale and the Human Dimensions of Global Change: A Survey," *Ecological Economics* 32: 217-39.
- Harlow, Neil. 1982. *California Conquered: War and Peace in the Pacific, 1846-1850*. Berkeley: University of California Press.
- Hirst, Paul and Thompson, Grahame. 1996. *Globalization in Question*. Cambridge: Polity Press.
- Hise, Greg. 1997. *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis*. Baltimore, MD: Johns Hopkins University Press.
- Hise, Greg. 2004. "Nature's Workshop: Industry and Urban Expansion in Southern California, 1900-1950." In Robert Lewis, ed., *Manufacturing Suburbs*. Philadelphia: Temple University Press, pp. 178-99.
- Hock, Dee and Senge, Peter. 2005. *One from Many: VISA and the Rise of Chaordic Organization*. San Francisco: Berrett-Koehler.
- Hoffman, Elizabeth. 1992. *The Rich Neighbor Policy: Rockefeller and Kaiser in Brazil*. New Haven, CT: Yale University Press.
- Igler, David. 2001. *Industrial Cowboys: Nature, Private Property and the Regional Expansion of Miller and Lux, 1850-1920*. Berkeley: University of California Press.
- Issel, William and Cherny, Robert. 1986. *San Francisco, 1865-1932*. Berkeley: University of California Press.
- Jackson, W. Turrentine. 1968. *The Enterprising Scot: Investors in the West*. Edinburgh: University of Edinburgh Press.
- Johnson, Arthur. 1970. "California and the National Oil Industry," *Pacific Historical Review* 39 (2): 155-71.
- Johnson, Marilyn. 1993. *A Second Gold Rush: Oakland and the East Bay in World War II*. Berkeley: University of California Press.
- Johnston, Moira. 1990. *Roller Coaster: The Bank of America and the Future of American Banking*. New York: Ticknor & Fields.
- Kador, John. 2002. *Charles Schwab: How One Company Beat Wall Street and Reinvented the Brokerage Industry*. New York: John Wiley.
- Kahn, Judd. 1979. *Imperial San Francisco: Politics and Planning in an American City, 1897-1906*. Lincoln: University of Nebraska Press.
- Kenney, Martin and Florida, Richard. 2000. "Venture Capital in Silicon Valley: Fueling New Firm Formation." In Martin Kenney, ed., *Understanding Silicon Valley*. Stanford, CA: Stanford University Press, pp. 98-123.
- Kroll, Cynthia and Kimball, Linda. 1986. *The R&D Dilemma: The Real Estate Industry and High Tech Growth*. Working Paper no. 86-116. Berkeley: Fisher Center for Real Estate and Urban Economics, University of California.
- Lewis, Oscar. 1949. *Sea Routes to the Gold Fields: The Migration by Water to California, 1848-1852*. New York: Alfred A. Knopf.

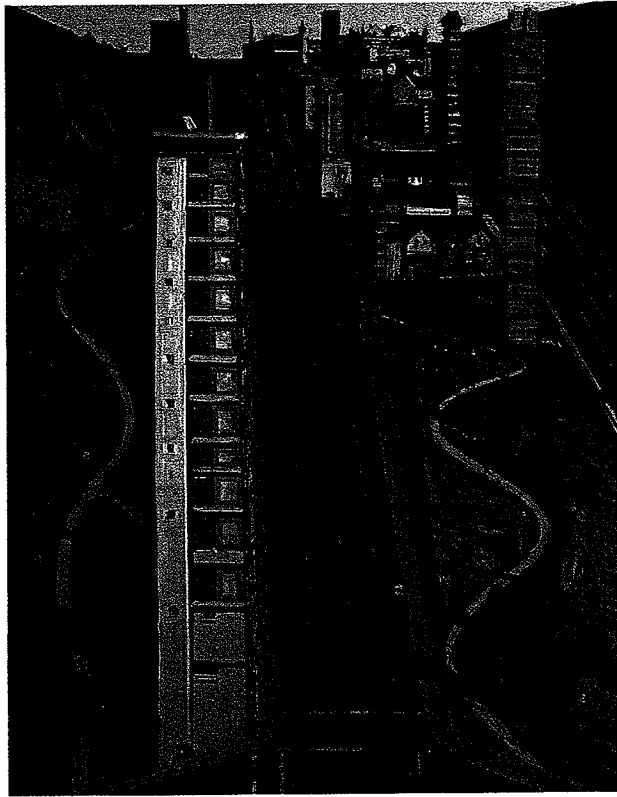
- Lotchin, Roger. 1992. *Fortress California, 1910–1961*. New York: Oxford University Press.
- Lowen, Rebecca. 1997. *Creating the Cold War University: The Transformation of Stanford*. Berkeley: University of California Press.
- Markusen, Ann, Hall, Peter, Deitrich, Sabina, and Campbell, Scott. 1992. *The Rise of the Gun Belt*. New York: Oxford University Press.
- McCartney, Laton. 1989. *Friends in High Places: The Bechtel Story – the Most Secret Corporation and How It Engineered the World*. New York: Ballantine.
- McKendrick, David, Doner, Richard, and Haggard, Stephan. 2000. *From Silicon Valley to Singapore: Location and Competitive Advantage in the Hard Disk Drive Industry*. Stanford, CA: Stanford University Press.
- Meyer, David. 1983. "Emergence of the American Manufacturing Belt: An Interpretation," *Journal of Historical Geography* 9 (2): 145–74.
- Miles, Sara. 2001. *How to Hack a Party Line: The Democrats and Silicon Valley*, rev. ed. Berkeley: University of California Press.
- Nash, George. 1983. *The Life of Herbert Hoover*, vol. I. New York: W. W. Norton.
- Nash, Gerald. 1985. *The American West Transformed: The Impact of the Second World War*. Bloomington: Indiana University Press.
- Nash, Gerald. 1992. *A. P. Giannini and the Bank of America*. Norman: University of Oklahoma Press.
- O'Mara, Margaret. 2004. *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley*. Princeton, NJ: Princeton University Press.
- Page, Brian and Walker, Richard. 1991. "From Settlement to Fordism: The Agro-industrial Revolution in the American Midwest," *Economic Geography* 67 (4): 281–315.
- Paul, Rodman. 1973. "The Wheat Trade between California and the United Kingdom," *Mississippi Valley Historical Review* 45: 391–412.
- Pomeroy, Earl. 1965. *The Pacific Slope*. New York: Alfred A. Knopf.
- Reed, Howard. 1981. *The Preeminence of International Financial Centres*. New York: Praeger.
- Rhode, Paul. 1994. "The Nash Thesis Revisited: An Economic Historian's View," *Pacific Historical Review* 63 (1): 363–92.
- Rogers, Everett and Larsen, Judith. 1984. *Silicon Valley Fever*. New York: Basic Books.
- Rosen, Kenneth and Jordan, Susan. 1988. *San Francisco Real Estate Market: The City, the Peninsula and the East Bay*. November. Working Paper 88–152, Fischer Center for Real Estate and Urban Economics, University of California, Berkeley.
- Saxenian, Annalee. 1994. *Regional Advantage: Silicon Valley and Route 128 in Comparative Perspective*. Cambridge, MA: Harvard University Press.
- Saxenian, Annalee. 2006. *The New Argonauts: Regional Advantage in a Global Economy*. Cambridge, MA: Harvard University Press.
- Schoenberger, Erica. 1997. *The Cultural Crisis of the Firm*. Oxford: Blackwell.
- Scott, Allen. 1988. *New Industrial Spaces*. London: Pion.

Scott, Allen. 1
ment in Sou
Scott, Allen. 2
Publications
Scott, Allen. 2
Scott, Allen a
Twentieth C
Scott, Allen ar
at the End
Press.
Scott, Mel. 19
2nd edn. Be
Sides, Josh. 20
Depression t
Smith, Robert
Bank's Stru
Winchester,
Soja, Edward.
Los Angele
Oxford: Bas
St. Clair, Davi
Rim Econo
Stewart, Walte
Headlines. 7
Storper, Mich
Technology a
Strassman, W.
London: U
Tassava, Chris
Industrializa
Tobey, Ronal
Revolution
California 1
Trice, Andre
Firms, 1895
PhD disser
Berkeley.
Trusk, Robert
1850–1880.
Valle, Victor a
sity of Minn
Waldinger, Ro
Park: Sage.
Walker, Richa
and Region:
Geographers

- New York: Oxford
- Transformation of*
- l, Scott. 1992. *The*
- story – the Most Secret*
- Ballantine.
2000. *From Silicon*
- the Hard Disk Drive*
- Manufacturing Belt: An
- 74.
- and Silicon Valley,*
- New York: W. W.
- Impact of the Second*
- Norman: University
- ce and the Search for*
- Press.
- Fordism: The Agro-
- Geography* 67 (4):
- ia and the United
- 2.
- Knopf.
- ncial Centres.* New
- : Historian's View,"
- r. New York: Basic
- ! Estate Market: The*
- per 88–152, Fischer
- sity of California,
- and Route 128 in*
- ity Press.
- antage in a Global*
- the Firm.* Oxford:
- Scott, Allen. 1993. *Technopolis: High Technology Industry and Regional Development in Southern California.* Los Angeles: University of California Press.
- Scott, Allen. 2002. *The Cultural Economy of Cities.* Thousand Oaks, CA: Sage Publications.
- Scott, Allen. 2005. *On Hollywood.* Princeton, NJ: Princeton University Press.
- Scott, Allen and Soja, Edward. 1986. "Los Angeles: The Capital of the Late Twentieth Century," *Society and Space* 4 (3): 249–54.
- Scott, Allen and Soja, Edward, eds. 1996. *The City: Los Angeles and Urban Theory at the End of the Twentieth Century.* Los Angeles: University of California Press.
- Scott, Mel. 1985 [1959]. *The San Francisco Bay Area: A Metropolis in Perspective,* 2nd edn. Berkeley: University of California Press.
- Sides, Josh. 2003. *L.A. City Limits: African American Los Angeles from the Great Depression to the Present.* Berkeley: University of California Press.
- Smith, Robert H. and Crowley, Michael. 2000. *Dead Bank Walking: One Gutsy Bank's Struggle for Survival and the Merger That Changed Banking Forever.* Winchester, VA: OakHill Press.
- Soja, Edward. 1986. "Economic Restructuring and the Internationalization of Los Angeles." In Michael Smith and Joe Feagin, eds., *The Capitalist City.* Oxford: Basil Blackwell, pp. 178–98.
- St. Clair, David. 1994/95. "New Almaden and California Quicksilver in the Pacific Rim Economy," *California History* 73 (4) (Winter): 278–96.
- Stewart, Walter. 1993. *Too Big to Fail: Olympia & York, The Story Behind the Headlines.* Toronto: McClelland and Stewart.
- Storper, Michael and Walker, Richard. 1989. *The Capitalist Imperative: Territory, Technology and Industrial Growth.* Oxford: Basil Blackwell.
- Strassman, W. Paul and Wells, Jill, eds. 1988. *The Global Construction Industry.* London: Unwin Hyman.
- Tassava, Christopher. 2003. "Multiples of Six: The Six Companies and West Coast Industrialization, 1930–1945," *Enterprise and Society* 4: 1–27.
- Tobey, Ronald and Wetherell, Charles. 1995. "The Citrus Industry and the Revolution of Corporate Capitalism in Southern California, 1887–1944," *California History* 74: 6–22.
- Trice, Andrew. 1955. "California Manufacturing Branches of National Firms, 1899–1948: Their Place in the Economic Development of the State." PhD dissertation, Department of Economics, University of California, Berkeley.
- Trusk, Robert. 1960. "Sources of Capital of Early California Manufacturers, 1850–1880." Doctoral dissertation, University of Illinois, Urbana.
- Valle, Victor and Torres, Rodolfo. 2000. *Latino Metropolis.* Minneapolis: University of Minnesota Press.
- Waldinger, Roger and Bozorgmehr, Mehdi, eds. 1996. *Ethnic Los Angeles.* Newbury Park: Sage.
- Walker, Richard. 2001. "California's Golden Road to Riches: Natural Resources and Regional Capitalism, 1848–1940," *Annals of the Association of American Geographers* 91 (1): 167–99.

- Walker, Richard. 2004a. *The Conquest of Bread: 150 Years of Agribusiness in California*. New York: The New Press.
- Walker, Richard. 2004b. "Industry Builds Out the City: Industrial Decentralization in the San Francisco Bay Area, 1850–1950." In Robert Lewis, ed., *Manufacturing Suburbs: Building Work and Home on the Metropolitan Fringe*. Philadelphia: Temple University Press, pp. 92–123.
- Walker, Richard. 2006. "The Boom and the Bombshell: The New Economy Bubble and the San Francisco Bay Area." In Giovanna Vertova, ed., *The Changing Economic Geography of Globalization*. London: Routledge, pp. 121–47.
- Walker, Richard and Buck, Daniel. 2007. "Engine of History? The Transition to Capitalism in China's Cities," *New Left Review* 46: 1–27.
- Walker, Richard and the Bay Area Study Group. 1990. "The Playground of US Capitalism? The Political Economy of the San Francisco Bay Area in the 1980s." In Mike Davis, Steve Hiatt, M. Kennedy, Susan Ruddick, and Mike Sprinker, eds., *Fire in the Hearth: The Radical Politics of Place in America*. London: Verso, pp. 3–82.
- Watts, Stephen. 1997. *The Magic Kingdom: Walt Disney and the American Way of Life*. Boston: Houghton-Mifflin.
- Wellock, Thomas. 1998. *Critical Masses: Opposition to Nuclear Power in California, 1958–1978*. Madison: University of Wisconsin Press.
- Wilson, Neill and Taylor, Frank. 1957. *The Earth Changers*. Garden City, NY: Doubleday.
- Zhang, Junfu and Patel, Nikesh. 2005. *The Dynamics of California's Biotechnology Industry*. San Francisco: Public Policy Institute of California.

BLACKWELL COMPANIONS
TO AMERICAN HISTORY



A COMPANION TO
CALIFORNIA
HISTORY

EDITED BY

William Deverell and David Igler

 WILEY-BLACKWELL