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Rivers of Empire: Water, Aridity, and the Growth of the American West by Donald Worster

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#### WALDEN POND AND THE CAPITALIST STATE

#### Tim Stroshane

Review of: Donald Worster, Rivers of Empire: Water, Aridity, and the Growth of the American West (New York: Pantheon Books, 1985).

Next time you pass through the city of Oroville in Northern California on State Highway 70, take a detour through town and go up to the Oroville Dam. Take the road that follows the channel of the Feather River, winding through hills clothed in manzanita, madrone, and oak. You will soon round a bend to the impressive sight of the world's tallest earthen dam at 770 feet. Swing up past the dam to the visitor center's museum. Against one wall, amid the wildlife taxidermy and Gold Rush artifacts, is a white graphic outline of the state of California. Through its midsection a thick blue arrow slashes from north to south. It is simply captioned: "The Plan."

Donald Worster's book *Rivers of Empire: Water, Aridity, and the Growth of the American West* is a history of the culture and society of the American West that dreamed up and implemented "The Plan." Worster strives to say something truly new and different about the cultural drama of water in the West, something that goes beyond the simple condemnation of pork-barrel politics. To do this, he reclaims the theory of "hydraulic society" from the dusty shelves of right-wing historical interpretation.

On his own terms, Worster achieves his goal: he shows persuasively the utility of recent critical theory for interpreting the development of the American West as a region founded on the transformation of hydrological and ecological regimes. In so doing, he shows that modern hydraulic society not only exists as a useful category of historical analysis, but that it also dwarfs the scale of all other attempts in human history to turn deserts green.

### **Hydraulic Society: Water and Total Power**

It has often been observed in the history of modern political and social thought that the artifacts and machines we build to liberate ourselves from drudgery, oppressive traditions, and/or nature become instead instruments which enslave us.<sup>1</sup>

Technological domination has also been directly attributed to hydraulic artifacts. The German historian Karl Wittfogel, once a member of the Frankfurt School of social theory, was the first to frame the theory of hydraulic society, originally applying it to the ancient civilizations of Mesopotamia, India, China, and Egypt.<sup>2</sup> Drawing on the ideas

of Karl Marx, Wittfogel argued that while nature is transformed by human technology in the process of production, natural processes often play a significant, even causal, role in social outcomes. In other words, political regimes are as much shaped by, as they are shapers of, ecological regimes.<sup>3</sup>

These ancient civilizations, Wittfogel believed, were profoundly shaped by what he called the "Oriental mode of production," which he later renamed "hydraulic society." Following Marx, this mode originates in state ownership of property in the ancient societies set in arid environments. As such societies evolved dialectically, the sovereign state organized itself bureaucratically to deal with societal crises and challenges. The main source of environmental crisis for the agromanagerial elites is the need for more water beyond mere local subsistence supplies. Reasons for these "needs" often included population increases requiring greater agricultural production, or the drive by the "agro-managerial elite" to bring more territory under its "hydraulic" control.

The ancient hydraulic states undertook the task of building the monumental water works along the Nile, the Tigris and the Euphrates, and the Huang Ho (in China). In so doing, the state disciplined and organized society to meet the demand for labor and raw materials for the construction of these projects. In addition, the expertise to design and manage the operation of the projects had to be developed. Bureaucracies became necessary to administer the flows and rhythms of the water harvest to the villages and communities of hydraulic society.

"Whoever controlled those means of production," notes Worster, became perforce the effective ruling class. The common technoenvironmental basis in all those ancient Oriental civilizations, giving rise to similar social structures in them, was water control...."

To Karl Wittfogel, the most striking social feature of ancient hydraulic societies, apart from the imposing physical impact they had upon their landscapes, was that their technical "progress" led to a kind of development "trap" in which social and political power embodied in the bureaucratic control of water was used to defeat social change. As long as agro-managerial bureaucrats controlled the timely collection and distribution of water, society could be effectively managed hydraulically: that is, the elites could use the threat of having water withheld, or supplies reduced, to manage political and social outcomes. The management of the earth's lifeblood became the basis, in Wittfogel's view, for regimes aspiring to total power over their subjects. Because revolution in such contexts was impossible, contends Wittfogel, only ecological collapse brought down these systems of total

power, when the soils turned alkaline and the canals and reservoirs silted up — processes the ancient engineers and bureaucrats were powerless to check.

After arriving in America on the eve of World War II, Karl Wittfogel turned vigorously against communism and Marxism. In his book *Oriental Despotism*, published in 1957, he described the bureaucratic socialist experiences of Stalinist Russia and of communist China as the terrifying reassertion of Oriental despotism. This modern bureaucratic tyranny, he contended, extended beyond resource development into the modern industrial factory system and into all other spheres of life as well. The ends of proletarian revolution had been thoroughly betrayed by the revival of this ancient form of despotism.

Ironically, despite the construction in the American West of the grandest system of hydraulic works in the world's history, governed by an immense and sophisticated bureaucracy, Wittfogel observed only the apparent democratic blessings of material abundance conferred by capitalist hydraulic systems on a free society. He saw no palpable evidence of tyranny.

### Water and the Capitalist State

In Rivers of Empire, Donald Worster takes exception to Wittfogel's selective interpretation of modern bureaucratic and technological society. At issue is Wittfogel's implicit assumption that hydraulic technologies – dams, canals, aqueducts, and so forth – are somehow politically neutral devices for the storage and transport of water when they are deployed by modern capitalist democracies.

Worster uses the American West, especially California, as a case study of what he calls "modern hydraulic society,... a social order based on the intensive, large-scale manipulation of water and its products in an arid setting." It arose, according to Worster, on the belief that the technological control of water through irrigation would open the arid West to American development. Water development would then spread economic opportunity across the continent. The boosters of irrigation at the end of the 19th century believed that American freedoms and traditions would be preserved and extended as water caused the desert to bloom.

Surveying 150 years of American history and the literature on ancient water-intensive civilizations, Worster finds that the water regime in the West has done the opposite. While phenomenal agricultural and material wealth was created, many freedoms and traditions, especially those once enjoyed by peoples of color, were disciplined, crushed, or drowned in the wake of the large-scale sociotechnical hydraulic systems that control the allocation of water throughout the

region. "The hydraulic society of the West," he states, "is increasingly a coercive, monolithic, and hierarchical system, ruled by a power elite based on the ownership of capital and expertise. Its face is reflected in every mile of the irrigation canal. One might see in that reflection the qualities of concentrated wealth, technical virtuosity, discipline, hard work, popular acquiescence, a feeling of resignation and necessity — but one cannot find in it much of what Thoreau conceived as freedom."

While Karl Wittfogel tended to read into the despotic past the totalitarian regimes of the 20th Century, Donald Worster paints with a broad historical brush the variety of experiences of human cultures in arid environments, including pre-Columbian American cultures. He places these experiences into three typologies of how humans have developed water and social control in arid areas: the local subsistence mode, the agrarian state (into which he places Wittfogel's ancient hydraulic regimes), and the capitalist state mode. The three modes are summarized and compared in Figure 1 below. The first part of Rivers of Empire describes the intellectual history of the various modes of hydraulic society. The rest of the book traces the ideology and history of the capitalist state mode of hydraulic society. Worster sees it as a special case of capitalist culture:

The American West is an ecological variant of the modern world-circling culture of capitalism: a pattern of culture and society that has branched off, diversified somewhat from the parent that sent it out to find a new home for itself.... Where there was an abundance of natural wealth lying about, waiting to be easily gathered up and made use of, capitalism as a culture and as a social order got along without much centralization of its energies. But when it encountered the raw edge of scarcity...that culture began to shift about. It found itself saying and accepting things it would not have accepted before. It felt the need to fabricate, or invite in, powerful organizations, above all the state, to help carry out its drives. <sup>10</sup>

## Legitimacy and the Modern Water Project

In identifying the capitalist state mode of hydraulic society, Worster employs two important theoretical devices. First, Worster borrows the notion of "instrumental reason" from Frankfurt School thinkers Theodor Adorno and Max Horkheimer, and later thinkers such as Jurgen Habermas. <sup>11</sup> Instrumental reason involves, according to Worster, "thinking carefully and systematically about means while ignoring the problem of ends." When instrumental reason crowds out other forms of rationality (e.g., ultimate goals or morality), it results in a life of "rationalized

Figure 1: Worster's Modes of Hydraulic Society and Their Essential Attributes

<u>Mode</u>	Social Structure/ <u>Authority</u>	Degree of Community <u>Autonomy</u>	Level of Expertise	Cause of Failure
Local Subsis- tence Mode	Decentral- ized community or village governance	High; using small-scale water diversion techniques	No special training required, knowledge transmitted through tradition	External invasion or internal disputes
Agrarian State Mode	Bureaucrati- cally organized state, ruling a set of villages	Low; armies of labor built hydraulic works	High levels of mana- gerial and engineering expertise necessary	Ecological collapse
Capitalist State Mode	Private- sector agri- culturalists seeking to accumulate wealth; centralized private and public organiza- tions; dual role for the state	Low; labor forces com- posed of Third World periode and poor whites who build dams and reap few economic benefits from them	Similar require- ments as agrarian state mode	Possible ecological collapse because of political paralysis of the capitalist state

irrationality." In the American hydraulic regime, unfettered instrumental reason makes it possible for the Bureau of Reclamation to propose and build dams that now irrigate less acreage of productive farm land than was in production prior to the water project. <sup>12</sup>

The other notion Worster uses is that of the capitalist state's dual role in creating hydraulic society: on the one hand, the state must foster the social, political, and economic conditions which facilitate the accumulation of capital by the private sector. But, on the other hand, it must temper the drive for accumulation with gestures toward social justice and welfare in order to retain its own political legitimacy to govern.<sup>13</sup> The state's dual role is the ultimate in social contradictions,

and the logic of instrumental reason is employed in the state's operations in an attempt to evade the politics of this contradiction.<sup>14</sup> To Worster, the history of Federal reclamation policy, whose cornerstone is the National Reclamation Act of 1902, illustrates clearly the logic of instrumental bureaucratic reason within the contradiction of the capitalist state.

To appreciate how something like the National Reclamation Act (hereafter NRA) could be made the law of the land, it is essential to grasp something of the mood of late nineteenth-century America, particularly in the West. America was alive with social and political movements: the emergence of a corporate industrial economy, the rise and fall of the agrarian Populists, the growth of Progressivism and nationalism, and the nascence of a profound dissatisfaction among social and intellectual elites with industrial culture. Some contemporary radical historians identify this with the growth of "therapeutic culture," which shaped our contemporary experience of consumerism. <sup>15</sup>

There even emerged a movement for "appropriate technology" at this time, one committed to the spread of irrigation technology and the reclamation of water resources in the American West. Adherents to this movement sought to spread the gospel that new communities in the West could be built using irrigation technology. Raised upon a new sociotechnical foundation, these communities would realize agrarian democracy and expand economic opportunity. Many such schemes were marketed and publicized in the East and Midwest, complete with package tours offered by the railroads. <sup>16</sup>

However, failures of these new utopian communities were frequent for lack of capital and an abundance of naivete. It became clear to irrigation enthusiasts, as well as to capitalists and the U.S. Congress, that if the West were to develop at all, the Federal government would have to inject the capital and supply the expertise required to make the desert bloom.

## **Accumulation Through Reclamation**

Congress took up the irrigation issue in 1901 and passed the NRA overwhelmingly in 1902. The intent of the NRA, contends Worster, is clear from the transcripts of the debate over its passage. After the Civil War, America expanded into the West and into Third World nations under the guiding lights of capital accumulation and imperial enthusiasm, and many Congressmen orated that the reclamation program would enhance and augment this accumulation of American wealth. 17

But if the new possibilities for capital accumulation sold the idea of reclamation and irrigation to American elites, these elites also supported it as a paternal subsidy to the "common people": reclamation

could be a technological program for democratizing access to economic opportunity. Members of Congress saw the National Reclamation Act as a means for maintaining social peace, "a safety valve for the discontented, unemployed, unruly class in the cities." Worster continues:

Senator Thomas Patterson of Colorado called the [NRA] "a great pacificator," for it would open an outlet in times of economic unrest. When there is "danger of great social disturbances in the great cities, instead of meeting for the purpose of concocting trouble," the down-and-outers, he predicted, would load their families into a wagon and go West to seek an irrigated farm. The bill, therefore, would be "better than a standing army." <sup>18</sup>

For the sake of the legitimacy of the Reclamation Act, Congress wrote into the law a limit on the ownership of land to 160 acres served by the water projects. This was intended to prevent federal subsidization of land monopoly, but it was also consistent with the move for expansion: some members of Congress suggested that the limitation would make possible an explosion of homebuilding and new agrarian communities in the West, thereby opening ripe new markets for goods produced in the East. Federally-sponsored reclamation became an enormously ambitious program of engineered social and economic development. It had at least three implicit rationales:

- (1) First, it made access to land both possible and inexpensive to come by;
- (2) Second, it was a managed and engineered approach to extending the American frontier with all its individualistic symbolism;
- (3) Finally, its new communities would become new markets which could generate new economic growth and new purposes for private investment.

Taken as a whole, these rationales add up to an experiment in social therapy in which access to cheap land supplied with water and rail lines throughout the American West would create widespread individual contentment and dissipate organized revolutionary fervor.

This proved to be far too heavy a burden to place on one law and one type of technology. From the start the 160-acre limitation in the NRA was anathema to western agricultural capitalists and land speculators. They viewed the requirement of the Reclamation Act to sell off lands owned in excess of 160 acres as a flagrant attack on liberty, property, and profits — an outrageous constraint on their heavily subsidized world of free market competition. <sup>19</sup> Because of this strong resis-

tance, then, the Reclamation Service, and its successor agency, the U.S. Bureau of Reclamation, backed away from its legislative mandate as social engineers and concentrated on the more narrow goal of designing and building dams. Due to this capitulation to Western capital, Worster believes the Bureau, along with its archrival, the U.S. Army Corps of Engineers, quickly came to personify instrumental reason.<sup>20</sup>

### Power in the Capitalist Hydraulic State

One problem that runs through *Rivers* of *Empire* involves Worster's view of power in hydraulic society. At first, Worster defines hydraulic society in the American West as a society in which power is coercive, monolithic, and hierarchical, and this power is appropriated by a capitalist and bureaucratic elite in whose interests, presumably, the state acts. However, late in his historical narrative, Worster claims that no one person or group controls this hydraulic society. It is instead "commanded by a convergence of instrumental forces," composed of growers raising food and accumulating profits with the primary goal of money-making, and the water bureaucrats who "serviced" the growers with their technical prowess in reshaping nature.

These political vectors hardly constitute a monolithic structure of power, such as may have characterized ancient hydraulic societies. Indeed, it is a tribute to the breadth and depth of Worster's own original research that he himself uncovers this problem at all. Yet, as with other such thoughtful nuggets, described below, he moves on without exploring this insight further. Worster is ultimately concerned with staving off an American ecological catastrophe, and does not pause to examine the connection of these "nuggets" with the other veins of historical gold he uncovers. He explicates a good theory of historical reality in *Rivers* of *Empire*, but he applies it without much inquiry into its limits.

## **Toward Ecological Sustainability?**

In applying a critical theoretical framework to hydraulic society, Worster also seeks to create in *Rivers of Empire* a parable of American culture, and its relationship with water, nature, and democracy. He makes an important contribution to scholarship on water in the American West, quite possibly destined to become a classic in the field. The purpose of his parable is to get us to rethink our views of nature, for he believes our views and the developmental trajectory upon which they are founded will lead to our collective demise. It is not too late to change, writes Worster. We need new ways of thinking about how our political economy could walk lightly on the land.

For planners interested in infrastructure and regional economic development, Rivers of Empire contains important insights into our cul-

ture's commitments to the trampling pace of technological gigantism and economic growth. Worster also develops some profound insights into the interrelationships of political power and ecological deterioration. Furthermore, he challenges his readers to imagine new ways of defining and developing our regions in ways that are ecologically and economically sustainable, to develop alternative modes of exploiting water resources, and to become self-conscious about the ideologies and logics of capitalist development and planning practice. But, by the end of the book, we are left wondering how to get there from here.

What could such a political economy, one that harmonizes with the constraints and possibilities of ecology, look like? Worster looks to the unheeded ecological ideas of the 19th century American scientist and explorer John Wesley Powell (for whom Lake Powell in Utah and Arizona is named with not a little irony):

In the years to come, practical men and women looking to create a new West along these lines might reexamine the social and environmental ideals of John Wesley Powell, distilling out of them their democratic essence. He proposed ... a West divided into hundreds of watershed-defined communities.... Much of that territory was to be owned in common and managed for the public good. Power was to be seated within and limited to the boundaries of these communities. They would have to generate much of their own capital, through their own labor, just as the Mormons initially did in Utah. They would have to use their own heads instead of those of outside experts, though science and technology might, if carefully controlled and kept open to popular participation, be put to their service. This scheme of Powell's, if worked out in modern terms unencumbered by his urge to dominate nature, would bring a radical devolution of power to the ordinary people of the West."

In this way, Powell felt the distribution of water would reflect the ecological limits of the arid West as found in each watershed, and American settlement of the West would proceed on a small-scale, ecologically sustainable basis.

#### **Economic Growth and Existential Fear**

Worster wisely realizes that getting there from here is another matter. The route to ecological sustainability and drainage-basin-sized jurisdictions must traverse the wilderness of contemporary consumer culture, whose roots lie deep in the origins of the U.S. corporate economy and the emergence of the capitalist mode of hydraulic society. At the core of this culture, Worster contends, is profound fear of nature and scarcity, citing the British economist E.F. Schumacher's insight that "every increase of needs tends to increase one's depen-

dence on outside forces over which one cannot have control, and therefore increases existential fear.\*\*<sup>22</sup>

To Worster, the desert represents a constant ecological assault on the culture of more-is-better. The desert of the American West challenges us, he says, to come to terms with our "true needs" as an important step toward achieving the experience of human freedom.

There are perhaps two existential lessons upon which we, as members of this culture, should draw, says Worster, to unlock the mystery of our true needs. One is that the farther we reach to grab water with our ever-greater commitment to a growth-at-all-costs economy and to sophisticated hydraulic systems, the more vulnerable, ecologically and economically, our way of life becomes. It is time, to paraphrase our President, to just say "no" to further reliance on such large-scale sociotechnical systems so that we can create the supply-side basis of self-restraint, for a culture willing to live within ecological limits, and for establishing our "true needs."

On the demand side, the other lesson, says Worster, is that our needs for water are not strictly biological needs, but are largely borne of our cultural milieu; therefore, they can be changed through some process of collective, self-conscious assessment of our true needs and best aspirations. In continuing along the path of modern hydraulic society, we court inevitable ecological disaster, he writes. But in seeking to live with aridity in the West, we can learn to live "more freely and rationally," he argues. In the desert, he argues, revealing his Thoreauvian pastoralism, "one can liberate oneself from extraneous needs and in that process also rid oneself of the demands of outside powers and of that shapeless, nagging fear they instill."<sup>23</sup>

Now, I agree in principle with these recommendations, but after having focused our attention for 330 pages on the institutional and political sources of hydraulic domination, this is a disappointing suggestion. Just live in the desert and adapt to its discipline, its limits, Worster counsels; but it is doubtful that the collective rational assessment necessary for such adaptation could occur at the same time that Congress insists on continuing the pork barrel system which builds water projects like the Tellico Dam.

The fact is, the evasive politics of the American capitalist state renders this individualist response to domination highly susceptible to a good marketing and public relations strategy. Because of his emphasis on an individualist conception of freedom from wants and competitive status-seeking, Worster misses some important issues, which include what the content of "true needs" might look like in this new American West, how to create coalitions and build movements that mobilize and

educate its members to implement genuine alternative social ideals based on these "true needs," and how to project such an ethos and program into the mainstream of American life. Thoreau's views on freedom are insufficient to meet the challenges of our own century. Sadly, *Rivers of Empire* is an insightful historical critique of our modem ecological predicament, but is no manifesto for action.<sup>24</sup>

Having thrown up "Danger: Undertow" signs about Worster's impressive labors, it would be irresponsible of me not to wade into the same murk, in an attempt to save his conclusions from echoing trendy New Age nostrums, and provide some notes toward an articulation of "true needs." Such a project must, I believe, incorporate Worster's recognition of the importance of discussing what those true needs ought to be, with the public ideals suggested by sociologist Alan Wolfe in a 1984 essay.

At that time, Wolfe argued that the political vacuum that is the American left ought to be addressed by engaging various progressive groups (e.g., feminist, environmental, labor, and civil rights groups) around the themes of social (even civic) responsibility, economic sufficiency, and ecological and inter-generational sustainability. These values, Wolfe believed, are interconnected and potentially self-reinforcing.

Values like responsibility, sufficiency, and sustainability challenge the priorities established by the New Deal. They offer both a different sense of how the world works and a different strategy for improving it than did the traditional Democratic Party of the post-war years. Fulfill the needs of groups, runs the logic of the New Deal, and the social good will follow. Define the social good, the alternative vision demands, and then discuss group needs. Since politics is generally about the reconciliation of group objectives, rethinking the objectives of American politics will compel the left to rethink the means to achieve its ends as well.<sup>25</sup>

Moreover, this framework would form the ethical and organizing basis for the most profound insight whose legacy remains with us to-day from the New Left of the 1960s: that the personal is political, and that politics ought to be a personal matter of concern to us all. <sup>26</sup>

"The hard fact" Americans in the West "must face up to is that, despite so much rhetoric to the contrary, one cannot have life both ways -- cannot maximize wealth and empire and maximize democracy and freedom too," writes Worster.<sup>27</sup> Yet, in California, this evasion, this rationalized irrationality, continues to unfold. Despite a resounding "No" from California voters in 1982 on the proposal to build a "Peripheral Canal" around the Sacramento-San Joaquin Delta, the same

tired technological and pseudo-economic arguments are rehearsed on behalf of new dams and aqueducts in the State Legislature. Worster himself notes that the politics of modern hydraulic society is "a characteristic American as well as western trait..." rooted in our mythology of the West as "the last place for dreaming and evasion...."

Despite these difficulties, Rivers of Empire remains a great story and an important contribution to the study of human ecology. It is a profound examination of water, capitalist culture, and democracy. It deserves to be read by planning practitioners for the historical interpretation of American regional development it offers. It is also a report on the culture in which planners work, one in which the technics themselves — the dams and the canals and the pumps — often require a type of politics that is incompatible with grassroots democracy and ecological harmony. Rivers of Empire urges us to move beyond merely measuring the tractor treads of progress across our chests to finding, literally, a more democratic place in the sun.

#### **ACKNOWLEDGEMENTS**

I wish to thank Jan Ambrosini, Dick Walker, Langdon Winner, Dudley J. Burton, and Louise Dunlap for their close reading and criticism of this review. The responsibility for the analysis here remains mine alone.

#### **NOTES**

<sup>1</sup>An excellent survey of this theme in social and political thought is found in Langdon Winner, Autonomous Technology: Technics-Out-of-Control as a Theme in Political Thought (Cambridge: MIT Press, 1977). While social critics on the political Left have most recently noticed this tendency, this argument has been made by observers of many persuasions in many historical moments. See, for example, David F. Noble, Forces of Production: A Social History of Industrial Automation (New York: Alfred Knopf, 1984); and Robert Howard, Brave New Workplace (New York: Viking, 1985).

<sup>2</sup>Wittfogel's major work is *Oriental Despotism: A Comparative Study of Total Power* (New York: Vintage Books, 1982, orig. 1957). His earliest statement on what he first called the "Oriental mode of production" appeared in 1938 in German as "Geopolitik, Geographischer Materialismus und Marxismus," and was translated and reprinted as "Geopolitics, Geographical Materialism, and Marxism," in *Antipode* 17, no. 1 (1985). See also in that volume Richard Peet, "Introduction to the Life and Thought of Karl Wittfogel."

<sup>&</sup>lt;sup>3</sup>See Richard Peet, "Life and Thought of Karl Wittfogel."

<sup>&</sup>lt;sup>4</sup>After fleeing Naziism for the United States in 1939, Wittfogel learned that similar ancient civilizations had arisen in the American Southwest, and so he rechristened his theory "hydraulic society."

<sup>&</sup>lt;sup>5</sup>See Richard Peet, "Life and Thought of Karl Wittfogel."

<sup>&</sup>lt;sup>6</sup>Worster, Rivers of Empire, 27.

<sup>&</sup>lt;sup>7</sup>Ibid., 7.

<sup>&</sup>lt;sup>8</sup>Ibid.

<sup>&</sup>lt;sup>9</sup>This system, it seems to me, could be especially useful for regional planners in Third World or advanced industrial contexts when undertaking rural economic development projects.

<sup>10</sup>Worster, Rivers of Empire, 283.

<sup>11</sup> The primary texts for the critique of instrumental reason are found in Max Horkheimer and Theodor Adomo, Dialectic of Enlightenment, trans. John Cumming (London: Allen Lane, 1973); Max Horkheimer, Eclipse of Reason (New York: Seabury Press, 1974); and Max Horkheimer, Critique of Instrumental Reason, trans. Matthew O'Donnell (New York: Seabury Press, 1974). Also see Jurgen Habermas, "Science and Technology as Ideology," in Toward a Rational Society (Boston: Beacon Press, 1971).

<sup>&</sup>lt;sup>12</sup>This is particularly true in the case of several Bureau water projects. A well-documented compendium of examples of rationalized irrationality is available in Marc Reisner's Cadillac Desert: The American West and Its Disappearing Water (New York: Viking, 1986). Reisner's book is therefore an essential companion piece to Rivers of Empire.

<sup>&</sup>lt;sup>13</sup> For some of the primary texts on the dual role of the capitalist state, see Jürgen Habermas, Legitimation Crisis (Boston: Beacon Press, 1975); James O'Connor, The Fiscal Crisis of the State (New York: St. Martin's Press, 1973); Claus Offe, Contradictions of the Welfare State (Cambridge: MIT Press, 1984); and Alan Wolfe, The Limits of Legitimacy (New York: Basic Books, 1977).

<sup>&</sup>lt;sup>14</sup>This view of the state in capitalist society differs from a more traditional Marxist perspective in which the state is merely an instrument employed to extend the reach of capitalist exploitation. Cf. Ralph Miliband, The State in Capitalist Society (New York: Oxford University Press, 1975). The key insight in this more recent formulation is that the state has become itself something of an autonomous actor within capitalist society, albeit an actor whose interests and aims are quite contradictory. Within this framework, it then becomes possible to see more clearly how the designs of technological systems, such as water projects or weapons systems, can embody political aims and goals that may or may not coincide with those of the capitalists. See Langdon Winner, "Techne and Politeia: The Technical Constitution of Society," in his book, The Whale and the Reactor: The Search for Limits in an Age of High Technology (Chicago: University of Chicago Press, 1986).

<sup>&</sup>lt;sup>15</sup>A broad discussion of the breakdown of community experience in American life is found in Robert Wiebe, *The Search for Order*, 1877-1920 (New York: Hill and Wang, 1978). One of the seminal works on the Populist movement is Lawrence Goodwyn's *The Populist Moment: The Agrarian Revolt in America* (New York: Oxford University Press, 1978). The classic discussion of Progressivism is in Samuel Hays, *Conservation and the Gospel of Efficiency* (Cambridge: Harvard University Press, 1959). Historian Thomas Haskell traces the rise of modern social science to the disintegration of American community life in *The Emergence of Professional Social Science*, 1965-1900 (Urbana, III.: Southern Illinois University Press, 1977). Hannah Arendt gives

a powerful philosophical critique of modern consumer culture in her essay "The Crisis in Culture," in Between Past and Future: Eight Exercises in Political Thought, enl. ed. (New York: Viking Press, 1968). The most controversial statement on "therapeutic culture" to date is probably Christopher Lasch's The Culture of Narcissism, and his subsequent restatement is found in The Minimal Self: Psychic Survival in Troubled Times (New York: W. W. Norton, 1984). Less known is T. J. Jackson Lears's No Place of Grace: Antimodemism and the Transformation of American Culture, 1880-1920 (New York: Pantheon Books, 1981). Lears develops an interesting conceptual framework for combining cultural studies, institutional analysis, and psychoanalytic theory, drawing eclectically from Antonio Gramsci, Max Weber, and Sigmund Freud.

<sup>16</sup>These schemes are well-described in William Kahrl, Water and Power: The Conflict Over Owens Valley's Water and the Rise of Los Angeles (Berkeley: University of California Press, 1982); and Carey McWilliams, Southern California: An Island on the Land (Santa Barbara, Calif.: Peregrine-Smith Books, 1946; reprint, 1973).

17 Worster, Rivers of Empire, 165. Worster even presents a sampling of Congressional bombast from the debate, in which the benefits of Federal reclamation projects are extolled as the expansion of opportunity, wealth, and markets, but not agrarian deocracy. For example, in the enthusiasm of the moment for this innovative technique for opening up new sources of profit, Congressman Elmer Burkett of Nebraska sounds almost like a man possessed: "The people of this country are pushing out for markets... We want markets. Markets! Markets! has been the watchword of the Republican Party ever since it raised its head in the cradle of liberty for the protection and betterment of mankind." You get the idea; Worster quotes several members of both houses to similar effect.

<sup>18</sup>Ibid., 167. The development of the therapeutic worldview in American culture was a cultural sublimation of anxiety and pain--a profound expression of political and personal powerlessness in the face of emerging corporate industrial development (though it was hardly recognized as such at the time, according to Lasch and Lears). Simultaneously, many adherents to the therapeutic worldview saw the industrial age as a moral and spiritual abyss. Many strains of contemporary culture we see about us now emerged at this time: do-it-yourself hobbies; utopian communes; spectator sports; professions and professional social sciences; infatuation with martial and military ideals; rejection of Western religious traditions for Oriental forms of mysticism; the list could go on. These cultural developments, contend historians Lasch and Lears, represented psychosocial displacements of cultural, social, and political attention away from the collective injustices and oppression of corporate industrialism and toward a search for privatized but authentic personal meaning and satisfaction.

This interpretation of American culture is highly controversial because it suggests, among other things, that the struggle for social justice and human freedom is a more difficult and culturally treacherous task than most social theorists generally admit.

I believe this theoretical framework can be fruitfully applied to *Rivers of Empire*. Worster touches on this therapeutic worldview in his brief discussion of the role that American enthusiasm for "home-building" played in

enhancing the appeal for reclamation. In passing the Reclamation Act, he writes, Congress was appealing to the fears of social revolt held by the American elite of the day, not by the poor. After all, says Worster, agricultural expansion is no cure for the ills of monopoly and concentrated wealth. But while the prospects of enhanced capital accumulation and expanded markets got the NRA through Congress, "homebuilding was perhaps the most popular argument of the reclamationists," according to economist Dorothy Lampen, writing during the 1930s (Worster, 168), for selling the Reclamation Act to the American people. Homebuilding would be the social therapy to salve the wounds of agrarian populism, European immigration, and nascent urban unionism. But Worster does not see that, sold to the public as an anti-monopoly, anti-industrial program, the social therapy of homesteading on federally-subsidized acreage may then be interpreted as one of the earliest uses of the capitalist state to gain the collusion of "antimodern" proponents of irrigation in large-scale social engineering. One could construe this relationship in Federal reclamation politics as the emergence of the modern equivalent of Wittfogel's "development trap." It is also clearly tied to the ideology of the American frontier, says Worster: "The beauty of national reclamation was that it could at once hold out that promise (of fulfillment through homesteading) and promote industrial might and world power."

<sup>&</sup>lt;sup>19</sup>And, in 1982, the acreage limitation was finally raised to 960 acres with little hue and cry.

<sup>&</sup>lt;sup>20</sup>Worster, Rivers of Empire, 285-86. See also Alan Wolfe, The Limits of Legitimacy, 250-52.

<sup>&</sup>lt;sup>21</sup>See Worster, Rivers of Empire, 132-43, p. 332 for the direct quote; and Reisner, Cadillac Desert, 25-37 and 114-119.

<sup>&</sup>lt;sup>22</sup>Worster, Rivers of Empire, 334.

<sup>&</sup>lt;sup>23</sup>Ibid., 334-35.

<sup>&</sup>lt;sup>24</sup>This line of analysis might have led Worster to consider examples from the utopian irrigation colonies in California early in this century to illustrate such alternatives. One such example worthy of more research is the experience of Uano del Rio in Southern California early in the 20th Century, built and inhabited by some of the early members of the socialist movement in Los Angeles. See McWilliams, Southern California, and Robert V. Hine, California's Utopian Colonies (Berkeley: University of California Press, 1966).

<sup>&</sup>lt;sup>25</sup>Alan Wolfe, "Beyond Neoliberalism: Toward a New Politics of the Left," *The Nation*, 22 September 1984, 225 and 241-43.

<sup>&</sup>lt;sup>26</sup>See Wolfe, "Beyond Neoliberalism"; and for perhaps the original statement of the relationship between the personal and the political see "The Port Huron Statement," in the appendix to James Miller's "Democracy is in the Streets": From Port Huron to the Siege of Chicago (New York: Simon & Schuster, 1987).

<sup>&</sup>lt;sup>27</sup>Worster, Rivers of Empire, 334.

#### BIBLIOGRAPHY

- Arendt, Hannah. Between Past and Future: Eight Exercises in Political Thought. New York: Viking Press, 1962.
- Goodwyn, Lawrence. The Populist Moment. Oxford: Oxford University Press, 1978.
- Habermas, Jürgen. Legitimation Crisis. Boston: Beacon Press, 1975.
- Haskell, Thomas. The Emergence of Professional Social Science. Urbana, Ill.: Southern Illinois University Press, 1977.
- Hays, Samuel. Conservation and the Gospel of Efficiency. Cambridge, Mass.:
  Atheneum Press. 1959.
- Hine, Robert V. California's Utopian Colonies. Berkeley: University of California Press, 1966.
- Horkheimer, Max. Critique of Instrumental Reason. Translated by Matthew O'Donnell. New York: Seabury Press, 1974.
- . Eclipse of Reason. New York: Seabury Press, 1974.
- Horkheimer, Max, and Theodor Adorno. *Dialectic of Enlightenment*. Translated by John Cumming. London: Allen Lane, 1973.
- Howard, Robert. Brave New Workplace. New York: Viking Press, 1986.
- Kahrl, William. Water and Power: The Conflict Over Owens Valley's Water and the Rise of Los Angeles. Berkeley: University of California Press, 1982.
- Lasch, Christopher. The Minimal Self: Psychic Survival in Troubled Times. New York: W.W. Norton & Co., 1984.
- . The Culture of Narcissism. New York: W.W. Norton, 1979
- Lears, T.J. Jackson. No Place of Grace: Antimodernism and the Transformation of American Culture, 1880-1920. New York: Pantheon Books, 1982.
- McWilliams, Carey. Southern California: An Island on the Land. Santa Barbara, Calif.: Peregrine-Smith Books, 1946; reprint, 1973.
- Miliband, Ralph. The State in Capitalist Society. New York: Harper Colophon Books, 1977.
- Noble, David F. Forces of Production: A Social History of Industrial Automation. New York: Alfred A. Knopf, 1984
- O'Connor, James. The Fiscal Crisis of the State. New York: St. Martin's Press, 1973.
- Offe, Claus. Contradictions of the Welfare State. Edited by John Keene. Cambridge: MIT Press, 1984.
- Peet, Richard. "An Introduction to the Life and Thought of Karl Wittfogel." Antipode 17, no. 1 (1985): 3-22.

- Reisner, Marc. Cadillac Desert: The American West and Its Disappearing Water. New York: Viking Press, 1986.
- Wiebe, Robert. The Search for Order, 1877-1920. Madison: University of Wisconsin Press, 1967.
- Winner, Langdon. Autonomous Technology: Technics-Out-of-Control as a Theme in Political Thought. Cambridge: MIT Press, 1977.
- \_\_\_\_\_. The Whale and the Reactor: The Search for Limits in an Age of High Technology. Chicago: University of Chicago Press, 1986.
- Wittfogel, Karl. Oriental Despotism: A Comparative Study of Total Power. New York: Vintage Books, 1957; reprint, 1982.
- \_\_\_\_\_. "Geopolitics, Geographical Materialism, and Marxism." Antipode 17, no. 1 (1985): 23-72.
- Wolfe, Alan. "Beyond Neoliberalism: Toward a New Politics of the Left." The Nation, 22 September 1984, 225.