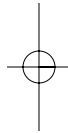
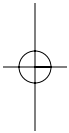




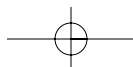
AMERICA'S FIGHT OVER WATER

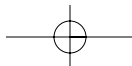
The Environmental and Political Effects of Large-Scale Water Systems

Kevin Wehr



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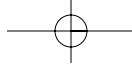
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Why should you not spend money to . . . defend your government, your society, against your expensive paupers and criminals? We must show the poor man how he can afford to get married . . . and become a homeowner.
General Frederick Booth-Tucker of the Salvation Army, 1895

The superiority of the western half-continent over its eastern counterpart may not be expressed in a word. It is, rather, a matter for patient unfolding through a study of natural conditions over wide areas, and a scrutiny of the human institutions which are the inevitable product of this environment. Aridity, in the elementary sense, is purely an affair of climate. That it is also the germ of new industrial and social systems, with far-reaching possibilities in the fields of ethics and politics, will be demonstrated.

William Ellsworth Smythe, 1899

The farm boys in the East want farms of their own. [The Newlands Act] gives them a place where they can go and build homes without being driven into the already crowded cities to seek unemployment.

Representative Oscar Underwood of Alabama, 1901

In the shadow of Hoover Dam one feels that the future is limitless, that no obstacle is insurmountable, that we have in our grasp the power to achieve anything if we can but summon the will.

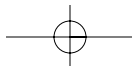
Joseph Stevens, 1988

It required 19 centuries to define decent man-to-man conduct and the process is only half done; it may take as long to evolve a code of man-to-land conduct.

Aldo Leopold, 1949

What we know now that we didn't know in 1938 is that a river isn't a water pipe.

Bruce Barcott, 1999



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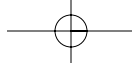
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Preface

America's fight over water has long historical roots: from indigenous communities clustered near year-round flows to the twentieth century Anglo domination of the wild rivers of the West, water has been central to the social, political, and cultural life of the western portions of North America. Comparative historical sociology can help make sense of socio-cultural shifts over time, and this work addresses how the control of nature has shifted from sustainable use to domination, and how the unintended consequences of this history pose serious problems for sustainability in the future.

The central organizing principle of the book is an examination of the discourses about the proposal and construction of large-scale water systems in the American West. The fights over water stretched from the shifting northern borders with Canada to the contested southern borders with Mexico, and from the emptying of the rivers into the Pacific Ocean to the corridors of power in Washington, D.C. Multiple social groups argued for and against construction of the dams, hydropower plants, and irrigation canals, and the rhetoric these groups used betrays a complexity of continuity with past views of nature's gifts to society and changing views of how humans should preserve natural resources. The three case studies presented—Boulder (Hoover) Dam, Grand Coulee Dam, and Glen Canyon Dam—exhibit these complexities, as well as the power and politics of the social groups competing for dominance.

The examination of these three high dams in the American West shows how the discussions around the dams illuminate a particular set of society-nature relationships. Society and nature interact with—and mutually construct—one another in complex ways, but an approach that utilizes the perspectives of political and environmental sociology can yield important insights regarding the ways that culture, politics, and nature are linked. Nature and society exist in a dialectical relationship, where the growth of society is influenced by natural barriers, and nature is concomitantly effected by social

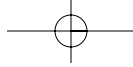


forces. Building dams in an arid land is one way to overcome natural barriers to social development, but stopping the natural flow of a river is not just costly, it has clear environmental consequences. Such costs and consequences need to be justified. This book addresses the specific question: what methods were used to justify and/or contest the building of an economic and political infrastructure in response to the perceived water scarcity of the American West?

To address this question, I examine the historical discourse around three dams, focusing on how they were presented to the public by the state and how the public received them. The physical existence of the dams has no *inherent* meaning; rather, different social groups assign meaning to the dams. My central focus, then, is on how the representations of the dams were mobilized in order to legitimate an ideology based in the domination of nature. How was this ideology supported, mystified, and contested? Examining the material culture of the dams (the publications, photos, brochures and other forms of discourse used to justify their proposal) helps to show how a dominant ideology can be translated into material reality. I argue that the ways the dams were represented—how the state, private capital, and local inhabitants in the West viewed the potential of the dams, and later how they viewed the various intended and unintended consequences—legitimated an ideology of unilinear progress through the application of science and technology to overcome perceived natural problems. I believe that the views of the dams shows an acceptance of this dominant ideology of subjugating nature; the representations of the dams and of nature and society function to legitimate state building in the form of human transformations of the landscape.

This work shows that the discourses surrounding the proposal and construction of large-scale water systems are real—they are not just texts to be read, interpreted, and deconstructed. The ways that people and institutions construct reality have real effects on the landscape of the West. Indeed, they have a real impact on people's lives, their livelihood, and even their bodies. The justifications that enabled the building of the dams helped to produce the metropolises of Los Angeles and Las Vegas, Seattle and Portland. They helped California and the West grow to prominence in the United States' economics, politics, and culture. We have stepped onto a treadmill of development, and once on, it may be extremely difficult to get off.

Without water and hydropower, the United States would have a very different west coast, one with a much more diminutive population. With such a demographic shift the national political landscape would have an altered topography. Water politics in the West thus holds an important place in U.S.

*Preface*

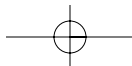
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history for many reasons. Modernist discourses legitimating state building and socio-economic expansion helped to bring this about, and environmentalist discourses helped to put the brakes on this blind development.

A new historical analysis of state building rhetoric and the fight over water in the American West is important for other reasons as well. Though the problems with such development strategies are reasonably well known, there are currently construction plans for high dams in many nations of the global South. Political regimes as varied as those of Chile, India, and China are all in the process of building dams for all of the same reasons that the technology was first created in the western U.S. These nations all use similar rhetoric as the New Deal politicians and dam boosters, and appear to ignore the unintended consequences that came with the dams of the American West. How is it that the same rhetoric is used in cases separated by 100 years and several continents? Will the outcomes be the same? A deep examination of the first place and time when such projects were justified may help us understand the reasons and effects of their contemporary mobilization.

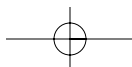
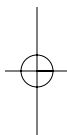
Any analysis that reaches toward objectivity on a controversial issue must put forward the author's biases at the outset. I declare myself ambivalent (in its denotative sense: I am of two minds) on the issues of water and the West. Some environmentalists portray the big dams as the product of villains and as the physical embodiment of evil—they fantasize along with Ed Abbey about blowing the dams sky-high. While I sympathize with this fantasy I can't say that I embrace it, for my life—as was Abbey's—is materially dependent upon those big dams. My great-great-great grandfather moved to California in 1848, seeking gold. The other side of my family moved to the West Coast after World War II, settling in well-watered northern California. This lineage represents two extremes of Anglo California inhabitants: the rugged individual encountering the "wilderness" of the frontier and the middle class baby-boomer family enjoying post-war prosperity.

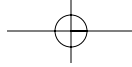
So while my radical-environmentalist side cherishes the Earth First! dream of breaching Glen Canyon, the pragmatic side realizes what the damming of the West has wrought: an exploding economy, a booming population, and enough hydro-electric power to help win World War II and propel the United States to a hegemonic position in the global economy, with all of the minutia of all the lives that depend upon all of this. Clearly these are not unmitigated positives, but some aspects have enough worth to convince me to maintain a healthy ambivalence and skepticism for those who speak in superlatives—both for and against the dams. It is my hope that this book will help to make sense of the controversy and discordant perspectives that swirl around the dams of the American West.

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The usual bromides apply to this book as to so many others. While responsibility for the work is mine alone, without the help of so many people it would not have happened. I would especially like to thank Jess Gilbert for his indispensable advice and guidance, as well as the support and encouragement of my other mentors: Fred Buttel, Jane Collins, Bill Cronon, and Phil Gorski, all of whom have been both supportive and encouraging. Hundreds of librarians and archivists helped along the way, and I greatly appreciate their assistance in uncovering manuscripts and images (every effort has been made to locate the copyright holders, the works have been properly cited throughout, and I appreciate permission for reprinting material). I have to particularly acknowledge the forbearance of my writing group, Alisa Rosenthal and Jeff Helmers, who tolerated my at times spasmodic attempts at writing and rewriting to make it better than good. Thank you also to Susan and Jason; Martha, Matt, Monica, and the union and CD crew; Audra, Becky and the co-ops, and of course Jacquie for all of your support. This book is dedicated to Sadie, the one who carried me the whole way.

Kevin Wehr
Sacramento





Chapter One

Introduction: The Fight over Water in the American West

Oh the world is seven wonders
so the travelers always tell.
Some gardens and some towers
I guess you know them well.
But now the greatest wonder
is in Uncle Sam's fair land.
It's the king Columbia River
and the great Grand Coulee Dam

“Grand Coulee Dam” Woody Guthrie

“Water, water, everywhere / Nor any drop to drink.”

Samuel Taylor Coleridge

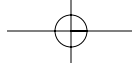
Modern poets, such as Woody Guthrie, have lauded the achievements of the newest world wonders—the dams of the American West. This myth-making is central to the success of the dams and the building of an ideology regarding nature. But modern poets, whose works form a thread throughout this book, have not recognized what Samuel Taylor Coleridge alludes to in “The Rime of the Ancient Mariner.” Coleridge’s thirsty sailor is ironically surrounded by undrinkable salt water. This eighteenth-century poem may soon have some contemporary relevance in the American West. As demand for water increases, dams are silting up and supply is dwindling. Agribusiness intensively irrigates mono-crop fields, producing mineral-rich run-off that makes rivers saltier than seawater. Meanwhile, more and more people move to Western states, and federal policy has shifted, curtailing the state’s ability to respond to a looming water crisis.

What hubris led humans to the brink of this potential tragedy? The American West is not so different from other societies in its profound alterations

of its natural environment—what Paul Jacobson calls “brute force technology” (2002: 4–8)—and yet the scale, intensity, and consequences make the West an interesting case: rarely have changes to the environment been so immense and numerous as the dams of the American West. Large-scale water systems have been built on all major rivers of the West; dams trap water for drinking and irrigation, provide hydroelectric power, control flooding, and ease navigation. The dams are also among the premier stops as tourists experience the grandeur of the West, and the massive reservoirs have become a playground for anglers, water skiers, and campers.

Most of the dams in the West were built during the Progressive Era and the New Deal, and consequently reflect an ideology of rational planning and state building based in a faith in scientific progress. State-sponsored infrastructure had myriad environmental and political effects, but the natural formations¹ that the state worked to overcome also had a profound influence on how society developed. Through an examination of the ways that nature, society, and the state interact with and mutually construct one another, this work will contribute to an integration of political and environmental sociology.

The theoretical impetus for this effort is to illuminate the relationship between society and nature. This theoretical concern is two-fold. First, political and environmental sociology, respectively, have contributed important insights towards understanding the ways that culture and politics are linked and the ways that society and nature are linked, but rarely are these areas integrated. Through an examination of dams in the American West, this work makes sense of the ways that central concerns of political sociology—state-building and social movements—influence and are influenced by the nature-society relationship, which is a central concern of environmental sociology. The state does not just build an infrastructure on a passive landscape. Rather, a conception of the relationship between nature and society must be discursively constructed, in part through bottom-up cultural processes as well as state-directed top-down ideological processes. Second, there were specific social and environmental effects of this state-building process that contributed to a nature-society relationship that has dialectically changed over time. Since the natural environment is not simply a passive object that the state builds upon, the analysis of discourses, manifested in cultural texts, can help integrate political and environmental sociology by contributing to the understanding of the ways that natural conditions helped and/or hindered state building. This book thus asks the specific question: what discursive methods were used to justify or contest the building of an economic and political infrastructure in response to the perceived water scarcity of the American West?



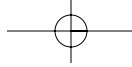
Introduction

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Recent political sociology has taken a “cultural turn” (Steinmetz 1999) towards a broadened interest in the constitutive role of culture in politics and the state. Discourse analysis has played a large part of this turn; by examining how meaning is constructed, maintained, and transformed, scholars have helped to illuminate the ways that the political realm is constituted, in part, by culture. To fully understand the social world we must not only examine political-economy, but also cultural, spatial, and temporal forces. This work builds on the cultural turn in the discipline of sociology by endeavoring to connect the discourses about nature and state building on the landscape of the West—a subject that is both political and environmental. The connections between politics and environment abound, and discourse analysis can help clarify and explain those connections.

To address these connections, this book will examine the discourse around the dams of the American West: how they were presented to the public by the state and how the public received them. The physical existence of the dams has no inherent meaning; rather, different social groups assign meaning to the dams. My central question, then, is how were the representations of the dams mobilized—supported, mystified, and contested—through a discourse of high modernism² based in the domination of nature? Examining artifacts of the material culture of the dams (the publications, photos, brochures, and other forms of discourse used to justify the construction of the dams) will help to show how a dominant ideology can be translated—albeit unevenly—into materiality. In the spirit of Chandra Mukerji’s (1997) work on the ways that the gardens of Versailles represented control over France’s territory, I will show the ways that the dams of the American West symbolize the human transformations of the landscape under high modernism.

To better illustrate the issues at the heart of this study, I have singled out a few dams to explore in greater detail. But the larger argument I make is that the discursive representation of the dams and the relationship between nature and society operate for all of the dams in the West, whether they were built by private capital, individual states, the Army Corps of Engineers, or the Bureau of Reclamation. Avoiding a singular, place-specific case study, I instead explore the ways that the general discourse around dams was created and consumed throughout the nation, both on a local level, within debates in Congress, and in the national popular media. The several dams I examine closely are Boulder Dam on the lower Colorado River (chapter four), Grand Coulee Dam on the Columbia River (chapter five), and Glen Canyon Dam on the upper Colorado River (chapter six), which are all represented in the map section, pages 239–41.

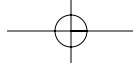


This work, then, examines the role of discourse in legitimating the construction of large-scale water systems across the western half of the United States. The dams represent material power—the infrastructural expansion of the state, the exertion of state control over territory, and the domination of nature. The discursive practices and ideologies that legitimated the building of the dams show that the dams represent a prime example of high modernism in its monolithic pretensions and contested results.

I argue that the ways that the early dams (Boulder and Grand Coulee) were represented—how the state, private capital, and local inhabitants in the West viewed the potential of the dams, and later how they viewed the various intended and unintended consequences—legitimated an ideology of high modernism. This ideology centered on a process of state building that transformed the landscape of the West to enable political, economic, and social control and to spur agricultural and industrial development. Such transformations represent an example of a “spatial fix” that capitalism must achieve in order to stave off the continual threat of crisis (Harvey 1982, 2000: 23–30).

As with any hegemonic ideology, there is some amount of contestation apparent in the debates over the dams. The opposition, however, was rooted in economic self-interest. Detractors of the early dams were concerned with the *type* of dam that would be built—and specifically who would benefit—rather than *whether or not* the dams should be built (chapters four and five). This changed over the course of the mid-twentieth century. With the rise of an oppositional discourse rooted in an ideology different from high modernism, opponents could effectively contest the dams at Echo Park and Glen Canyon in the Colorado River Basin (chapter six). This shift towards an effective oppositional discourse posed an important challenge to the hegemony of the high modernist ideology. The absorption of this oppositional discourse into high modernism has proved to be uneven (chapter seven).

We can identify three levels, or layers, of discourse production: the actual production of the images or texts, the significance of the intended consequences, and the consumption of those images and texts, including any unintended consequences (Lutz and Collins 1993). The first level of discourse is represented by the texts produced by the U. S. Department of Interior's Bureau of Reclamation. There are three broad levels of Bureau documents: general publications about the need for (and the glory of) the dams, reports about particular dams and how they are important for the local area and the region (or the nation as a whole), and detailed engineering documents about the construction and management of particular dams. These documents form a central core of data for this study, with other



Introduction

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groups and individuals responding to or initiating Bureau actions. I compare these representations of the dams with debates in Congress, oppositional voices, local and regional boosters, and the national press.

Thus, the discourses regarding the large-scale water systems of the American West were produced by situated subjects within an ideological arena. As the discourses about the environment of the West proliferated around the turn of the twentieth century, views of nature and society came into conflict. Different social groups mobilized ideas and images to support or attack various forms of intervention in natural processes. Discussions regarding the virtues of building large-scale water systems provide a window into the views of nature.

The discourse around the dams—regarding the construction, management, how they were “sold” to the public, and how the public received them—is a multi-vocal subject. Many social groups contributed to the discourse of high modernism around the dams: the state (which is not a unitary object: this includes Congress, the President, the different Bureaus and agencies), displaced groups, grassroots organizations, farmers, urban consumers of water and agricultural produce, and tourists. This discourse is totalizing and imperialistic, both in its ideal type and as it was exemplified by dam boosters and detractors in the American West. The definition of the ideology of high modernism would be incomplete without showing the ways that discourses of resistance are co-opted and incorporated into the dominant discourse of high modernism. High modernism assumes contestation, but also often has the ability to absorb this resistance of disparate voices into an uneasy—and often uneven—unity.

THE STRUCTURE OF THE COMING CHAPTERS

This book is easily divided into two (unequal) parts. The first three chapters offer a broad overview of the historical trajectory of dam building and state intervention in the West. I first suggest, define, and discuss some theoretical concepts that will guide the analysis of the empirical cases. I follow these sections with a critique of the division of nature and society into two separate analytical subjects. This discussion will take place alongside a truncated examination of the history of the American West. Readers who are more interested in the history and empirical analysis of the case studies may wish to skip the theoretical and historiographical discussions of chapters two and three and flip directly to chapters four through six.

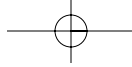
Environmental sociology’s analytical division of society and nature (industry and the polluted environment, farm and agricultural market, city and country) is, I argue, unfounded when compared to the historical record.

Instead, following David Harvey (1996), I take a dialectical approach regarding the society-nature relationship. Such an approach allows the complexity of the relationships between the (constructed) concepts of society and nature to be explored more fully. An examination of the larger historical literature on the environment of the American West supports this approach, as will be shown in chapter two.

The discipline of environmental history has long been concerned with nature-society relationships, and the historical record shows the complex and subtly changing human relationship to the natural environment. The increased attention to environmental history in the last 20 years has shown the profound alteration of nature by humans. In the American West in particular the changes wrought by humans have been significant; and yet the West has been the subject of many myths, and historians of the American West have shown how the construction of myths supporting human changes in the land have been central to everyday existence (see, for example, Cronon, Miles, and Gitlin 1992). These myths of the West are woven through discourse: the stories of brave trappers battling Indians, tales of pioneers entering a chosen land of plenty, or even folk singers praising the new world wonder of “the great Grand Coulee Dam,” as Woody Guthrie did when he was hired to write songs for the Department of the Interior. In essence, Guthrie created myths about the Columbia River—or at least elaborated and expanded on the myths that were nascent in the Pacific Northwest. Environmental and political sociology have much to learn from the insights of recent historical work on the interplay of history, nature, and culture. The next two chapters of this book attempt to include and build upon such insights.

The project then moves to the empirical cases, which make up the bulk of the work. Chapters four through six consist of deep examinations of the discourses around the three dams. Each chapter examines an individual dam, chosen for its symbolic weight, its importance to the West, and variation around booster and oppositional groups. Within each chapter, I will examine the logic of the state, the Bureau of Reclamation, private capital, and local supportive and oppositional groups in relation to each dam project. This method of organizing the work allows for polyvalence within each project, where both contestation and broad agreement on issues can be underscored. Continuities and differences between projects will be highlighted and analyzed as the work proceeds.

I have chosen dams as the case studies for this project because water scarcity defines the American West (Webb 1931/1959: 17). From the 98th Meridian to the Pacific Ocean, annual average rainfall is less than twenty



Introduction

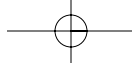
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inches, except for some areas of the Pacific Northwest and the mountain regions.³ Over the last century in this dry land, population increases and economic growth have been fueled by the parallel processes of the conversion of public land to private ownership, the concentration of capital, and the control of labor. These political-economic forces, in turn, depend upon a ready supply of water.

The U. S. government recognized water scarcity as an important issue near the end of the nineteenth century. The construction of hundreds of dams under the auspices of the Bureau of Reclamation, the Army Corps of Engineers, and individual states formed an infrastructure that, in a circular and cumulative manner, encouraged dramatic increases in population, economic might, and political power. These developments also had major effects upon the environment. From the obvious changes represented by the creation of canyon-filling reservoirs to the more subtle increases in soil salinity from intensive irrigation, the large-scale water systems of the American West have had a profound influence on environment, economy, and society. But the influence is dialectical. The actions of the state, in the attempt to surmount the barriers of an arid land, were constrained by existing natural conditions and nature's response to anthropogenic environmental changes.

The empirical chapters of this book address the complexity of this dialectical interplay between state, culture, and environment. The first two empirical chapters examine Boulder and Grand Coulee Dams; two early dams that saw no opposition other than differences in opinion regarding the form of the dam. Using imperialistic rhetoric, boosters talked about the need to build an empire in the region, or argued that the dam would contribute to the economic progress and growth of the region. At Grand Coulee this was inflected by either a high modernist, state-centered discourse or by an individualist-capitalist discourse that focused on private capital rather than the state. Hebraic discourses focused on the people who lived in the region, presenting them as a "chosen people" who lived in a Land of Canaan. Such a Promised Land should, they argued, be completed by a series of state-built dams.⁴

These discourses at Boulder and Grand Coulee show how that the lack of resistance to high modernism enabled continued hegemony. The discourses around the early dams all centered on a domination of nature that was not contested. At Glen Canyon Dam, however, this discourse was strongly challenged. The rise of an environmental discourse allowed an effective opposition to new dams in the American Southwest in the 1950s. This rediscovery of the preservationist discourse of John Muir was used to combat the hegemonic ideology of high modernism, which was triumphant in the American West from the building of Boulder Dam through the 1950s.



The Glen Canyon chapter explores the rise of this discourse, its consequences, and the cooptation that it has experienced.

The ultimate goal of the work is to provide an understanding of the ways that historical discourse has shaped the nature-society dialectic and how state building is different in the American West because of this. This goal will be most concretely addressed in the concluding chapter.

