

Review of books that define the role of water in the arid West

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Presentation Notes

Introduction

Using historical and Literary perspectives to define the role of water in the West ought to be the objective of each of us here today. Any research topic demands a review of the literature to insure that the writer is not treading on already plowed ground but, rather, adding to lore and the knowledge of the water resource.

The perspectives come from hundreds of directions: the engineers, the geologists, the writers, the artists, the town builders, the governors, the fishers of fish, the drillers and blasters (the dam builders), the romantics, the sailers and boaters, the teachers, the chemists, the biologist, the agribusinessman, the irrigator. Some might include other inhabitants of the terrestrial world: us, of course, but others, the cottonwood-willow forests, the hawk and the eagle, the stonefly and the helgrimate, the Columbine hanging in the damp recesses of some desert ravine or wash. The perspective may also be a factor of distance: We have all seen the earth photographed from the vastness of space. The "blue planet." As well as the droplet of morning dew hanging ever so tentatively to a leaf of grass.

We are now involved in a great exercise and debate between how much water we have today, and into the future, and how much water we will allocate and put to use. This also includes the presence of water that may not be "used" in the economic sense, "put to use," or "put to beneficial use," but the intrinsic or native sense of water in a location that has value *just because it's there*. Not captured, not moved, not traded, banked, borrowed, or stolen. That its presence, unmoved, deserves a place in the debate.

As we walk these trails in decision making, are there paths that have gone before?

John Wesley Power, at the International Irrigation Congress in Los Angeles in 1893, said there wasn't enough water and, no, we could not irrigate the whole billion acres of the public domain. More like 40 million acres or 4%.

Powell's words from Donald Worster's "A River Running West, The Life of John Wesley Powell"

*“When I attended the **International** Irrigation Congress meeting in Los Angeles in 1893, I was astounded – but not surprised – by the furor of the Congress members rocking the house with orations on the imminent blooming of the desert. It was a crusade for irrigation ! I found the delegates talking as if the whole billion acres of the remaining public domain could be irrigated ! It was madness ! It was an illusion ! Well, I had to lay aside my prepared notes and try to bring some sanity to the unbridled enthusiasm !*

In the first flush of my irrigation survey I said that only 40,000,000 acres, or 4% of the public domain could be irrigated. Much of the West is rocky and vertical, with few fertile grounds, except along the valleys of the great rivers. I felt it was surely dishonest and unsupported by scientific evidence to promote settlement of the West based on wild speculation. Powell went on to say the following:

*“When all the rivers are used, when all the creeks in the **ravines**, when all the brooks, when all the springs are used, when all the reservoirs along the streams are used, when all the canyon waters are taken up, when all the artesian waters are taken up, when all the wells are sunk or dug that can be dug in all this arid region, there is still not sufficient water to irrigate all this arid region. I tell you, gentlemen, you are piling up a heritage of conflict and litigation over water rights, for there is not sufficient water to supply these arid lands. They rose up in a torrent and boo’ed me! Instantly they were on their feet. waving their hands, interrupting, blurting out their angry questions.*

I realized I was a “heretic in a church full of believers,”

Worster’s 673 pages, “A River Running West,” is a masterpiece of scholarly research, told in a readable and detailed narrative. Powell conducted several of the great surveys of the West and was in constant competition with other Congressionally-funded surveys of this new land west of the 100th Meridian. Worster also wrote “Rivers of Empire, Water, Aridity and the Growth of the American West.”

My charge was to review some of the literature written about the role of water in the West. I found the task almost insurmountable for, as I pursued the bibliographies and libraries and tried to select my material, I found the trove of writing to be deep and abounding, with thousands of volumes, millions of words. I found myself hopelessly buried, struggling and grasping for salvation and rescue. I knew it was impossible to glean the rich nuggets, but also to present what I did discover in the short period of time made available to me today.

I just mentioned two books written by one author, Donald Worster. Mr. Worster is a Hall Distinguished Professor at the University of Kansas, at Lawrence. (Located East of the 100th Meridian.)

I would like to draw your attention to the maps found on your tables. And point out the rainfall data east and west of the 100th Meridian, the line of Longitude, running north and south, approximately through the middle of Hayes, Kansas. It is this line and the division marked by that line, that defines the role of water in the West. Forty to sixty inches of rainfall to the east of the line. Sixteen to twenty-eight inches to the West. It is this fact that hangs as the backdrop of all writings about water in the west. Some writers will refer to this demarcation, directly.

As I looked for the one or two books that might be the best for someone new to the West or as a student to this fascinating subject of water, I realized that it was setting on my desk , in front of me, all along.

Cadillac Desert, 1986 Marc Reisner

Anyone looking for a “primer” on water in the West has only to look as far as Cadillac Desert by Marc Reisner. You all have seen it , I am sure . Or at least heard of it. Despite the controversy it created when first published in 1986, Cadillac Desert has one of the most extensive “Notes and Bibliography “ section of all the books I will recommend in my presentation today. For each chapter he reviews his notes and the foundational books that directed his observations for that chapter, followed up with a bibliography for each chapter of hundreds, followed by a listing of articles and interviews which supplied the meat of each chapter.

His Table of Contents draws the reader with such titles as The Red Queen, The Go-Go Years, Rivals in Crime, the Peanut Farmer and the Pork Barrel, Those who refuse to Listen, and Things Fall Apart. And as you could probably tell from these Contents, Marc Reisner_ views the western social and political landscape_ with a jaundice eye, as a skeptic, as a cynic. Maybe this is why I liked his writing so much. He is not afraid to tell it like he sees it. Much like Powell’s report on the Arid lands and in his presentation to the International Irrigation Congress in 1893, as previously described.

Reisner recounts the dramatic saga to control and allocate Nature's most common resource...water. Cadillac documents the growth of the Bureau of Reclamation and the long-role of Floyd Dominy as the two-fisted director of Reclamation during the waning days of Reclamation's dam building era.

Reisner allows Floyd Dominy to conclude Cadillac Desert by saying: "What would it be like if there hadn't been a Bureau of Reclamation? How could anyone view the federal reclamation program as anything less than the salvation of the West."

(Note Mr. Dominy, now ex-Commissioner of Reclamation for two decades, spoke at the Colorado Water Workshop in July of 1998. I just happened to have a copy of my edition of Cadillac Desert with me and asked him if he would sign one of the inside pages. To my surprise, he did sign it. But held it out to me as if he was holding a dead rat.)

Reisner concludes: "Was it folly to allow places like Los Angeles and Phoenix to grow up? Were we insane or far-sighted to build all the dams? Then the final question: "What are we going to do next?"

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Well, we are in the middle of trying to answer that question right now. And, again, Reclamation is in the thick of it with its Colorado River Basin Water Supply and Demand Study. The State of Colorado as well, in the thick of it with the river Basin groups established by HB 1177 and the creation of river basin roundtables. Show a sample of the literature now being written: (studies, Headwaters, reports) surely literature of a type...

The drought of 2002, which some say continues today, has generated a flood of literature not only on the technical aspects of drought and aridity, the charts and graphs, the maps and population projections but also on the social and ____ aspects of little rain. The former chronicled in William duBuys 2011, book, A Great Aridity to MaryAustin's, 1903 edition of The Land of Little Rain

Since my time only allows for a smattering of perspectives, I am going to shift gears from the global, high altitude aspects of drought and climate change to "getting down into the weeds," so to speak.

The Land of Little Rain, 1903, Mary Austin

Mary Austin's was a contemporary of John Wesley Powell. Mary was playwright, poet and novelist. From a series of essays, Mary Austin "invests the land with magic." She describes the plant, animal and human life of the border region of Southern California

and Arizona, the land of Yucca, the coyote, the buzzard, inhabited by miners, vaqueros and Shoshone and Paiute Indians.

Mary makes sure we know the people through the land in which they lived. In her best chapter, "The Basket Maker," she writes of Seyavi, a Paiute woman who, with her infant son, is living in the rocks and caves of the Great Basin lands subject to the "mercy of the little gods of frost and rain."

We learn what rain and water mean *to the people*. We cannot help but place ourselves in the shoes of Mary's Seyavi, and wonder if we might someday have to pack our steamer trunks and abandon this beautiful land we love so much, but cannot eat.

Like the human people of the Great Basin, east of the Sierra Nevadas, Mary Austin also describes the "little people" of the tall grass, the "furred and feathered folk" that travel the "water trails" that fan out from the small springs and damp grounds. The single threads of barrenness, the mouse trails in the forests of the sod. These trails lead to salvation, but also danger. Here is where the snake, the coyote, and bobcat that wait in these places.

Read page 18, two paragraphs.

In the end, she invites her readers to knock at the door of her brown house in Santa Fe...and there have the news of the land, of its trails, and what is astire in them, as one lover of it can give to another.

A Green River Reader, 2005, edited by Alan Blackstock

To know a little about the upper Colorado River region, A Green River Reader is a good start. I learned from this book. The longest tributary of the Colorado River system, the Green River, or as it was once called: the Seedska-dee... stretches from the Wind River Mountains in Wyoming to the depths of the canyonland country, where it merges with the Grand River to become the Colorado.

Although Powell was one of the first to explore the regions of the Green River from Wyoming to Mexico, the thoughts presented in the volume fill in the rich palette of human habitation of the Green River before and after Powell's time. Alan Blackstock edits the writings of 27 individuals that write from their perspective: Father Escalante, Kit Carson, John Sumner, John Wesley Powell, Ellen Meloy, Edward Abby...and Wallace Stegner

In his chapter, "The Marks of Human Passage," Wallace Stegner writes of Dinosaur National Monument at a time when it was in danger of loss to the dam builders. Dinosaur is in the extreme Northwest Corner of Colorado where the Green and the Yampa Rivers merge.

In 1955, publisher and conservationist, Alfred Knoff, enlisted Wallace Stegner to edit a book of essays in the hopes of galvanizing the American public to oppose the construction of a dam in Echo Park, the heart of the Green and Yampa river systems. Although traded for the "place no one knew," (Glen Canyon), Dinosaur is a worthy piece of geography: a force to be explored, an obstacle to be conquered, a resource for irrigation and hydro power, a remnant of wilderness, a sportsman reserve, a playground for recreation, an obstacle to the Spanish priests, and a sacred stream to the native Americans who dwelled along its banks (and still do).

Stegner concludes Read 157-158

What is it about the desert that fascinates us? Is it what some people call the "long country-" the long and wide vistas. Is it the brilliant blue skies with towering clouds (that bring the promise of rain), the uninhabited open spaces? For me it is the juxtaposition of red rock; brown, grey, vermilion hills and in the canyon bottoms and in the box canyons the green of water. Nurturing the cottonwood or the curtains of yellow Columbinas. For me the role of water is rejuvenation: not only to splash it on my face in the early morning, drink it up during the day, but also to understand that in the driest and shaded places, life can start and cling, yea, even prosper. You could say that Water is *hope*

I started out this talk with some comments from J.W. Powell What might Powell say, today, if he were here. Donald Worster's book, gives a hint of Powell's final conversation:

"A River Running West," Donald Worster, The Life of John Wesley Powell

"I learned that nature, not war, posed my greatest test of fortitude. I am described as one of the colossal figures in western exploration. I am not sure of that, although I did have the opportunity to travel, ride, explore, and write about this arid region. For that I am thankful. Since leaving the Geological Survey and having spent my time in reflection and contemplation, I still have to say that there is not enough water in this place. I have read accounts of ambitious studies to identify supply and demand and how we might share the vanishing resource with the new uses of recreation, in-stream flows (water in the stream for water's sake) energy development. I observe the work of the Basin Roundtables. There is ambition out there to solve the problems of aridity. I

have to say that I find myself incapable of imagining that you will fail in your quest for solutions. Solutions necessary to remedy the problem of too much growth and too little water. But the solutions will not look anything like we imagine today.

Several other volumes I would recommend although I do not have the time today to describe:

A Great Aridness, William deBuys, Climate Change and the Future of the American Southwest.

House of Rain, Craig Childs, Tracking a Vanished Civilization Acrosss the American Southwest

Through the Grand Canyon from Wyoming to Mexico, Emery L. Kolb, A Personal Tale of High Adventure