

title **CADILLAC DESERT**
The American West
and its Disappearing Water

author **Marc Reisner**
1948 – 2000; an environmental writer from
California
http://en.wikipedia.org/wiki/Marc_Reisner

category History / Water Development of the Western USA

publisher Douglas & McIntyre
1986, 1993 trade paperback revised edition with
new Afterword, 582 pages
ISBN 1-55054-080-7

of note National Book Critics Circle Nominee
<http://www.bookcritics.org/?go=awards>

who should be interested in this book?

Anyone interested in the development of the western US and the part played by large federally-funded water projects. For the reader who would like to know more about American West of the 1900's without reading a "history" book.

why read this book?

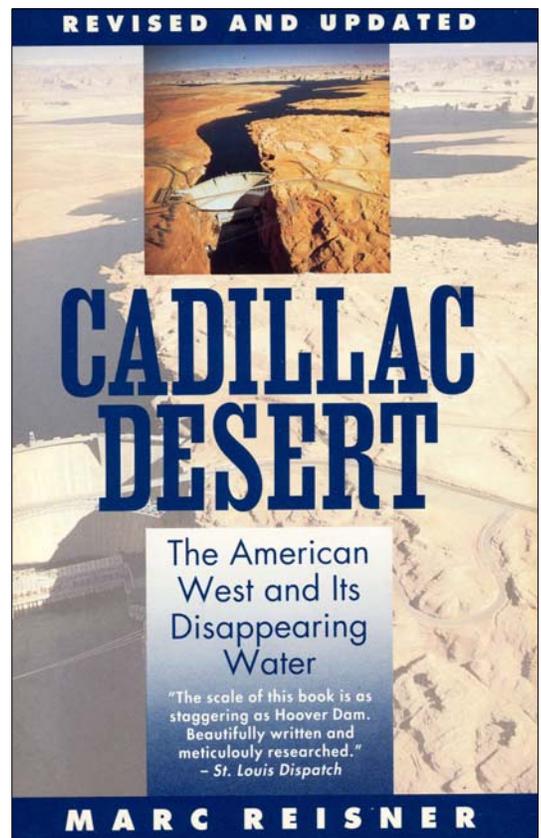
Attention readers who shy away from history books! This quest for water story is true, but it contains the larger-than-life characters, all the political intrigue, ecological missteps, and inter-agency rivalry fit for a work of fiction – and the great thing is that it reads like a novel. This is the American West of pork-barrel construction projects, water rights theft, and agency chiefs stronger than presidents.

The adage "if we don't learn from the mistakes of history we are bound to repeat them" will come to mind. Reisner shows that elected governments often don't really run much of a country – powerful bureaucracies that continue over the years determine their own direction (usually one that is self-rewarding!).

While this book is a 'must read' for its history of western US water developments, it is just as important for the background Reisner provides to understanding the 'unintended consequences' of our efforts to change the natural world around us. Was water needed to develop the West – Yes – but who did these developments benefit? – often not who we may have thought! – and too often with costs questionable for the benefits (was a federally-subsidized water project really meant to irrigate federally-subsidized cotton?).

review / outline by Lance Brown, vistadelsol@telus.net

Overview



The development of the American West was mainly one of water developments – after all most of the area is desert or semi-desert, and even southern California lacked water, until the “transfer of rights” (stealing?) of farmers’ water to send over the 223 miles of the Los Angeles Aqueduct.

Early private industry water supply attempts were mainly failures (although Mormons in Utah had small scale success) – the expense was too great for the possible water rates that could be collected. So, this is the normal entry point for the federal government, and enter they did, in such a large way that from the 1930’s to 1980’s billions were spent. Water projects returning \$0.05 per \$1.00 of cost were being considered – and often projects with massive ecological impacts. Reisner shows how bureaucracies can be a force unto themselves, even deflecting presidential efforts to curtail them.

Besides the bureaucratic shenanigans so aptly described, one of the most illuminating (or just plain scary!) aspects of Reisner’s account is the Western States attitude that they must each have water projects others have – even if irrigation water in high-elevation Wyoming makes little economic sense compared to Arizona or California with good growing conditions. Projects became to be approved by an “I’ll vote for yours if you vote for mine” attitude.

States extraction of water from the Ogallala aquifer was done with a determination to get their ‘fair share’ - without concern for the future (perhaps a not unexpected attitude, but destructive once played out). It brings to mind the following quote:

“The tragedy of the commons - each person acting out of self-interest will lead to collective action that destroys the common resource. Freedom in a commons brings ruin to all”, Ecologist Garrett Hardin.

A couple of points made early in the book:

“In the East, to “waste” water is to consume it needlessly or excessively. In the West, to “waste” water is *not* to consume it – to let it flow unimpeded and undiverted down rivers.” The West, with its dry conditions, was determined to get all the water it could.

“The United States has virtually set up an empire on impounded and redistributed water ...(but) the suffocating effects of accumulating siltwill certainly grow into a serious problem”

While a detailed account of the US west through the 1900’s, Reisner assures we are never left lost nor bored – readers are rewarded with a 500 page enjoyable ride.

There are two maps of water project locations, sixteen pages of pictures, detailed chapter notes, an extensive bibliography for further reading and an index.

For readers interested in specific stories of subjects covered here by Reisner, look for these three other books reviewed elsewhere on this web site:

Rivers in the Desert: William Mulholland and the Inventing of Los Angeles

The Salton Sea: Yesterday and Today

The Story of the Hoover Dam

Chapters & Points of Interest

Introduction: *A Semi-desert with a Desert Heart*

- an overview of the US west water systems, including dams and canals

1. *A Country of Illusion*

- early explorers comments range from “fertile prairie”, “forbidding plain”, and “tracts ... where not a speck of vegetable matter existed” – the Great American Desert
- the effect of a hat – trapping for beaver pelts opens the way for settlement

- expedition of John Wesley Powell (a good summary is given)
 - the selling of the land in the West by railroad companies looking to expand & profit
 - the 'unintended consequences' of the *Homestead Act's* 160 acre plot size
2. *The Red Queen*
- early settlement of southern California and water issues
 - Mulholland, the Owens Valley, the 1913 Los Angeles Aqueduct, and land speculators - an early example of water 'value' for cities versus farms
 - collapse of the Saint Francis Dam and death of 450 people
 - Los Angeles population of 100,000 (1900) grows to 1.25 mil (1925) – never enough water
3. *First Causes*
- weather events of the 1880's lead to federal irrigation systems
 - *Reclamation Act* of 1902 – an American flirtation with socialism? a relief from crowded conditions of the East? or Manifest Destiny?
4. *An American Nile*
- the Colorado River, erosion and siltation, early water diversions into southern California
 - 1905 diversion failure fills the Salton Sea
 - building of Hoover (Boulder Canyon) Dam
 - agriculture and irrigation in California and diversions of rivers – costs of \$2,000 per acre to water land, that after irrigation, worth only up to \$150 per acre
 - the growing Congressional power of the arid Western States
5. *The Go-Go Years*
- 1929 Great Crash, Dirty Thirties, pyramid-economics, and federal dam building program
 - California's Central Valley Project, FDR, the Bureau of Reclamation, large number of dispossessed people – more federal projects needed
 - by 1936, Hoover, Shasta, Bonneville and Grand Coulee dams are being built
 - by 1942, Longview, Wash aluminum production using Coulee electricity for WW 2 planes – did this help 'turn the tide' in Europe?
 - 1940's near Richland, Wash, plutonium production at Hanford using Coulee electricity
 - in its first 30 years, Bureau of Reclamation built 36 projects; in next 30 years built 228 more; the Corps of Engineers, mainly in Eastern States built hundreds of projects
6. *Rivals in Crime*
- by 1960's, rivalry between Corps and Bureau for projects in the West and Alaska
7. *Dominy*
- larger-than-life Commissioner of the Bureau, Floyd Dominy becomes a driving force
8. *An American Nile (II)*
- Colorado River, Arizona's Gila River, Salt River Project, water for Phoenix
 - water dispute between Arizona and California over Colorado River water entitlement
 - plans to dam the Klamath River, the Grand Canyon (outside the park but flooding the National Monument), divert water from the Columbia River to the Colorado
 - more water claimed for projects planned for Colorado than there is water available
9. *The Peanut Farmer and the Pork Barrel*
- Jimmy Carters' attempt to reduce the \$5 billion annual dam budget is thwarted by agencies and the 'trading of favours' (pork barreling) in Congress ('a tyranny presiding over a democracy')
10. *Chinatown*
- the 'fraud' of lush California which is mostly a semi-desert

- 1960 State Water Project; the Central Valley Project and the Bureau; the California Aqueduct; politics and the State Court; family farms, corporate farms, and low cost water

11. *Those Who Refuse to Learn ...*

- the construction and first year collapse of Teton Dam in Idaho; eleven people die
- the planned Narrows Dam on South Platte River in Colorado is 4 miles long

12. *Things Fall Apart*

- Ogallala Aquifer is over pumped ('mined'), water levels fall, pumping energy prices climb
- salt concentrations ('the monkey on irrigations back'); Yuma Desalination Plant; drainage projects; issues in Mexico from Colorado River salt content
- siltation problems; a list of dams original reservoir size and reductions due to siltation

Epilogue: *A Civilization, If You Can Keep It*

- was the federal Reclamation program the savior of the west? – or should it have been left as it was?
- effect of cheap subsidized water on users and their practices
- attraction of the US West to water in BC and Hudson Bay rivers; the North American Water and Power Alliance (NAWPA)

Afterword to the Revised Edition

- fate of California's' agriculture entwined with fate of salmon for water
- environmental issues play part in water decisions; federal dollars no longer easily found
- how many issues have changed; perhaps water left in rivers may be worth more than water taken out

[other review](#) **Publishers Weekly**

In this stunning work of history and investigative journalism, Reisner tells the story of conflicts over water policy in the West and the resulting damage to the land, wildlife and Indians. PW stated that this "timely and important book should be required reading for all citizens."

[other review](#) **Amazon.com**

The definitive history of water resources in the American West, and a very illuminating lesson in the political economy of limited resources anywhere. Highly recommended!

[article](#) **When the Bill for the Marvels Falls Due**

by Gladwin Hill, former national environmental correspondent of the New York Times,
Published: September 14, 1986

It's unlikely that most taxpayers will read "Cadillac Desert: The American West and Its Disappearing Water," but they should. It's a revealing, absorbing, often amusing and alarming report on where billions of their dollars have gone - and where a lot more are going.

The money has gone into Federal water projects in the Western states - some of the projects awesome, some scandalous but all with an uncertain future. More than a century ago John Wesley Powell, the nation's pioneer hydrographer and an explorer of the Grand Canyon, concluded that so much of the West was virtually desert that if all the flowing water in the region were applied to it, the water would spread too thin to make much difference.

But that didn't daunt several generations of pioneers, who believed the selective harnessing of available water could yield miracles. And it did. It virtually created modern California, making it the nation's most populous state and one of the world's prime agricultural areas. On a smaller scale, similar marvels were wrought in other states - Arizona, Utah, Colorado, the Dakotas, Montana and even Nevada.

It all came about less through engineering skill than through political prestidigitation. There's a thing known in Federal circles as the Iron Triangle. One side - depending on the week - is either the Interior Department's Bureau of Reclamation or the Army Corps of Engineers, rival bureaucracies dependent for their existence on the building of dams and related water facilities. The second side of the triangle consists of members of Congress, shamelessly wooing votes via pork-barrel projects. On the third side are beneficiaries of water projects - farmers, contractors, merchants, local politicians and a host of secondary opportunists. Link these together, and you have a greed machine, fueled by taxpayers, that for generations has been unbeatable. President Carter tried to challenge it with his "hit list" of questionable water projects and came out of Congress's threshing machine too battered to swing a second term.

The taxpayers' problem is that the chronicle of this hocus-pocus normally emerges in inconclusive bits and pieces, in reports based on sanctimonious handouts from the Bureau of Reclamation and the Corps of Engineers that are heavy on how they are saving the world, light on what it's costing - and often opaque about the justification for the projects.

Marc Reisner, a former staff writer for the respected newsletter of the Natural Resources Defense Council, has put the story together in trenchant form. He details the Machiavellian competition between the bureau and the engineers, recounts how huge sums have been spent to benefit small numbers of influential people and suggests painful days of reckoning lie ahead.

Parts of his account are oft-told stories, such as Los Angeles's snaffling of water from farmers 300 miles away. But much of his material is fresh and powerful, taken from such previously unplumbed sources as the bureau's "blue envelope" (secret correspondence) files and a marvelous, hair-down interview with Floyd Dominy, its free-swinging former commissioner. The 1976 collapse of the Teton Dam in Idaho - an instance of a structure that never should have been built - is detailed for the first time, with all its implications of carelessness and incompetence. Mr. Reisner also makes clear that much Western irrigation has been based on reckless "mining" of water in the great Ogallala Aquifer, which extends into seven states, from Texas to South Dakota. The severe depletion of this eons-old unrennewable resource, he says, has been matched in other areas by a reckless indifference to the accumulation of salts in soils. This has killed farmland and caused drainage crises like the current mess at California's Kesterson Reservoir, where pollution has poisoned the wildlife.

"None of this," Mr. Reisner writes, "is to say that we shouldn't have gone out and tried to civilize the arid West by building water projects and dams. It is merely to suggest that we overreached ourselves." He maintains: "What federal water development has amounted to, in the end, is a uniquely productive, creative vandalism. Agricultural paradises were formed out of seas of sand and humps of rock. Sprawling cities sprouted out of nowhere ... Its worst critics have to acknowledge its positive side ... The cost of all this, however, was a vandalization of both our natural heritage and our economic future, and the reckoning has not even begun ... Who is going to pay to rescue the salt-poisoned land? ... To dredge trillions of tons of silt out of the expiring reservoirs? ... Somewhere down the line our descendants are going to inherit a bill for all this vaunted success, and ... it will be a miracle if they can pay it."

Mr. Reisner suggests (without endorsement) that a very long-range answer might be the fantastic North American Water and Power Alliance plan - still just an engineers' dream - for diverting the massive water resources of British Columbia over thousands of miles: "The cost would be stupendous, but perhaps not much greater than the \$300 billion the Pentagon managed to dispose of in 1984."

A less fanciful, short-term response, which Mr. Reisner oddly does not discuss, is "water marketing" -the transfer of existing water rights and water supplies on the basis of their cash value rather than the subsidy economics that has prevailed. It's already happening in Arizona, which now acknowledges that much of the water long depicted as vital to farmers is really going to cities. Major shifts in consumption seem inevitable in California, where 85 percent of the water now goes to agriculture - much of it marginal and surplus, sustained through various subsidies. Water-short cities won't hold still forever for this disproportion, and

cities are where the votes are. So we're on the verge of a new era in water politics. Let's hope someone will chronicle it as well as Mr. Reisner has the last one.