
Book Review

Are We Controlled by the Whims of Nature, or Will We Create Our Future?

by Patrick Ruckert

The West Without Water: What Past Floods, Droughts, and Other Climatic Clues Tell Us About Tomorrow

by B. Lynn Ingram and Frances Malamud-Roam
Berkeley: University of California Press, 2013

Modern engineering has allowed the exploitation of all available water sources for human use, and water policy has favored water development for power, cities, and farms, over sustainability of the environment and ecosystems. These policies have allowed populations to grow right up to, and perhaps beyond, the limits that this region can support, leaving us vulnerable should drier conditions return.

If you agree with the above statement, you are probably reading the wrong publication. It comes from the concluding chapter of *The West Without Water: What Past Floods, Droughts, and Other Climatic Clues Tell Us About Tomorrow*, by B. Lynn Ingram and Frances Malamud-Roam, a book that provides the reader with, at least, some useful education in the paleoclimatic history of the West, and an understanding of the dynamics of the secondary causal processes that determine weather and climate, but glosses over the real controlling mechanism of climate—galactic processes and the Sun—and is polluted with malthusian statements like the above.

As Lyndon LaRouche has stated, we have few if any real scientists today. Most are either mere mathemati-

cians, or they have succumbed to “going along to get along” by at least giving lip service to environmentalist stupidity and the fraud of man-caused global warming.

Our authors, I think, fall into the later category, as they repeatedly write, for example, “Most scientists believe that man-induced global warming will...”

But, for now, let’s put the stupidities aside and look at what is of value in the book. Paleoclimatologists study climates from the past, from both before recorded history, and the more recent human-documented climate of the past millennia or so.

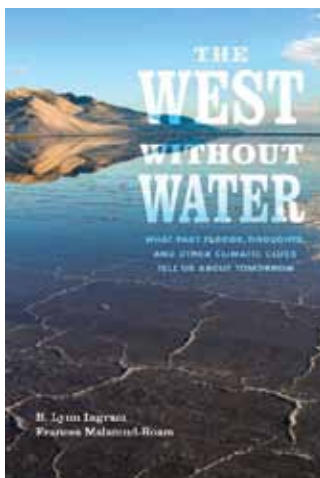
Ingram is a professor of Earth and Planetary Science and Geography at the University of California at Berkeley. She has been studying past climates for several decades, and has been often quoted in the media over the past several months for her analysis of the present Western States drought.

Malamud-Roam is an Associate Environmental Planner and biologist at

Caltrans (the State of California transportation authority), and visiting scholar in Ingram’s department at the University of California.

Climate History

In news articles, Ingram has summarized the last 2,000 years of the climate history of the American West, emphasizing that the current drought is the worst to hit the region in 500 years. In addition, she makes the point that, especially over this 2,000-year period, the West has experienced megadroughts lasting decades, and megafloods which far surpass the famous 1861-62 flood that put Sacramento and the entire Central Valley of California under 10-20 feet of water for months. She



states that the climate of the past 150 years or so is an anomaly, being one of the mildest and wettest on record, and that soon or later, perhaps now, California will return to the megadroughts interspersed with megafloods pattern that characterized the region for millennia.

The past 2.5 million years of our Earth's history is known as the Pleistocene, which has been dominated by Ice Ages, each lasting about 100,000 years, interrupted by interglacial warming periods that last about 20,000 years. The last Ice Age, or the "Last Glacial Maximum" as it is called, ended about 20,000 years ago. The authors' focus is on the last 11,000 years, the Holocene, which is characterized by increased Summer temperatures thought to be caused by a slight change in the Earth's orbit around the Sun, increasing the amount of radiation received by the Earth. More generally, the Holocene has been a period of variable climate, and, beginning about 2,000 years ago, that variability has been characterized by alternating megadroughts and megafloods.

The authors, usefully, go into great detail about the investigative methods the paleoclimatologists use to understand the climatic history of the West. They highlight the studies that reconstruct the past climate, including precipitation, temperature, stream flows, droughts, flood events, and wildfires. The evidence, they report, is found in tree rings, landforms, the debris left by glaciers, and the sediments and fossils found in lakes, estuaries, marshes, and the coastal ocean.

The tree species that provides the longest record of climate is the Bristlecone Pine, which is found only in the White Mountains of California, a range just north of Death Valley. Bristlecone Pines live at very high elevations and in an area that receives less than 12 inches of rain per year. Thus, it is a short, scrawny, very slow-growing tree, the longest-living tree on Earth, living more than 4,000 years.

El Niño and La Niña

The book's discussion of the causal factors determining weather and climate answers many questions the non-scientific reader may have about, for example, El Niño, La Niña, and why storms occur where and when they do. But, as to explaining why Ice Ages occur, and how, for example, sunspots affect climate, we have



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The Bristlecone Pine, found only in the White Mountains of California, a range just north of Death Valley, is the longest-living tree on Earth, living more than 4,000 years; it provides the longest record of climate changes.

to judge the book as inadequate and, in a way, misleading, since, although these phenomena are briefly discussed, they are largely dismissed, as the authors appear not to want to open a discussion that is almost by those promoting the fraud of man-caused global warming.

Weather differs from climate in that weather is what you experience today, while climate is the description of weather over a given period of time and for a given region. The authors' simplistic definition is: "Climate determines the timing, amount and form of precipitation that a region receives...."

Climate and weather in the West are characterized by irregular precipitation, which is determined by the complex behavior of the Pacific Ocean and its exchange of water and energy with the atmosphere. Just how and when evaporated seawater drops as rain or snow depends on patterns of ocean currents and atmospheric winds, and on the interaction of moisture-laden air with the landscape as it advances inland. The atmosphere above the Pacific Ocean moves East toward the American Pacific Coast, and as it hits the Western U.S. mountain ranges, the air is forced up the slopes. As the air moves to higher elevations, the moisture condenses and falls as precipitation, because rising cooling air cannot hold as much water vapor as warmer air. Thus, the eastern side of the mountain ranges receive very little precipitation, creating the Western deserts.

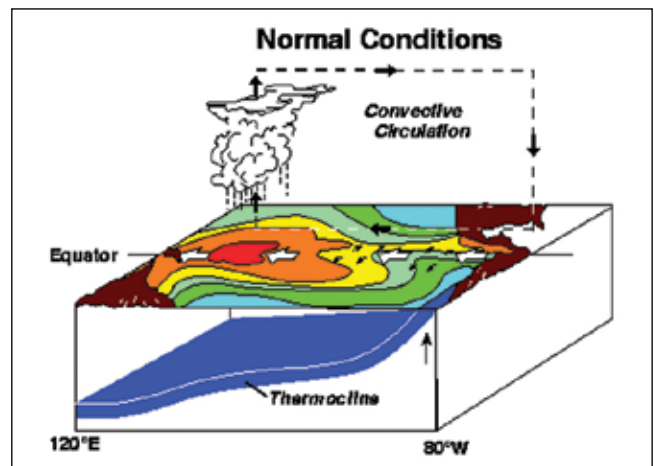
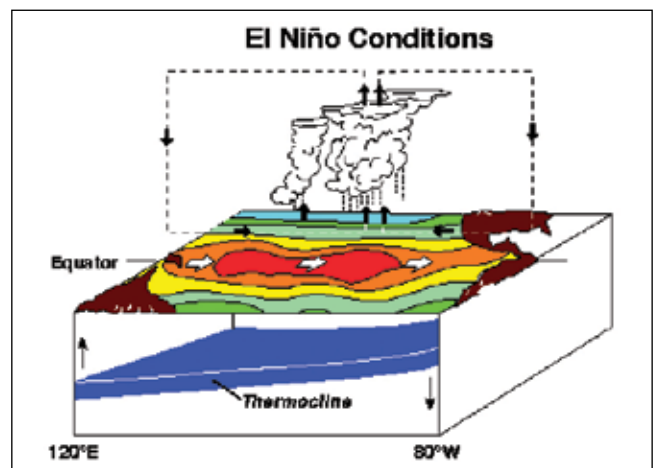
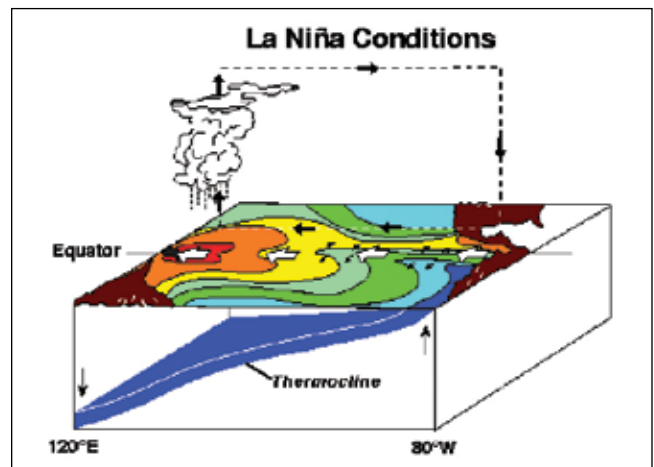
This is not the place to review all the details of this

process, so here we shall just mention a couple of phenomenon that many may have heard of, but little understand. The El Niño Southern Oscillation, for example, which brings drenching storms to the American West Coast. These storms are mainly a product of atmospheric rivers, which form when water vapor from the tropical Pacific Ocean is carried to higher-than-normal latitudes through a narrow corridor of concentrated moisture. Briefly, they are currents in the lower atmosphere (about 1 mile high) and may be 250 miles wide, and extend for thousands of miles. They carry water vapor and warm air from the eastern North Pacific to the West Coast of the Americas. When these atmospheric rivers hit the mountain slopes, they release huge amounts of moisture as precipitation. California, which only gets rain from late Fall to early Spring, normally receives only about five or six storms per year. Of these, about half will be atmospheric river storms.

An El Niño occurs when the trade winds in the eastern Pacific Ocean are lessened or completely cease for months. This phenomenon usually begins about Christmastime and it takes about nine or ten months for their impact to hit the West Coast of the Americas. The interruption of the trade winds allows for the western Pacific warm pool to flow eastward, at about 150 miles per day, toward the American coast. This warm water, which suppresses the colder water downward, pumps water vapor, heat, and enormous amounts of energy into the atmosphere above. This process then spawns large storms carried by westerly winds into northern Mexico and the southwestern United States. In the western Pacific, El Niños produce the opposite effect, such as droughts in Australia.

El Niños occur every two to seven years, with none having occurred over the last several years. Press reports in early April indicate that an El Niño system began in January, and, it is hoped, will bring storms to California next Winter, to break the drought. Regardless of whether next Winter is a wet one, merely breaking the current drought for a time will do nothing to alleviate California's larger problem: that, even without drought, there is not enough water available to the water-management system of the state to sustain its current population, not to mention another 20 million people who will live there by 2050.

That reality requires the immediate policy of moving our entire economy to a higher energy-flux density regime, by an urgent mobilization of the nation to achieve the scientific breakthroughs required to bring



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nuclear fusion on line in the next decade or so. That mobilization will also allow us to seriously take the immediate short-term measures required to deal with the present drought. We can, first, revitalize the 50-year-old policy of the John Kennedy Administration to build nu-

clear-powered desalination plants up and down the coast and in the Central Valley of California, to purify brackish water. By restarting the nuclear industry we can then begin to build the North American Water and Power Alliance (NAWAPA), another Kennedy-era policy, which will bring water from Alaska and northern Canada down to the Southwest and the Midwestern States.

‘Climate Change’

Now, back to the Holocene, which, as mentioned above, is the focus of the authors, who highlight the last 1,800 years. This period, they report, has exhibited larger and more rapid changes than the earlier Holocene, and has been characterized by prolonged droughts interspersed with sudden periods of great precipitation. For example, the Medieval Drought, A.D. 900-1400, saw repeated megadroughts, some lasting as long as a century. The period between these droughts saw megafoods.

With the end of the Medieval Drought, the entire planet entered a cooling period, including the Little Ice Age of the 17th Century, which saw rivers that were usually ice-free year around completely freeze over. The authors develop in some detail that the megafoods that hit California during this period were bigger than any in the human historical record. The 1605 flood, for example, which swamped the entire state, was much bigger than the one of 1861-62 mentioned above.

Finally, about two-thirds of the way through the book, the authors take up the effect of the Sun in producing changes in climate, in other words, climate change. That phrase, “climate change,” is the term now preferred by the proponents of the idea of anthropomorphic global warming, since some of them are smart enough to recognize that we may soon get global cooling. Either way, the idea that climate change is something bad and must be prevented is absurd. The climate is always changing, as this book makes very clear.

The authors’ discussion of the effect sunspots have on the climate, while accurate scientifically, is both brief, and in the end, along with other extra-terrestrial



The Little Ice Age of the 17th Century saw rivers that were usually ice-free year 'round completely freeze over. This scene, “Winter Landscape with Skaters,” by Hendrick Avercamp, depicts conditions during the Little Ice Age in the Netherlands ca. 1608.

phenomena, simply put aside, as the book heads toward its concluding chapters, and the argument they will make, that mankind must learn to adjust to whatever nature brings us. One point that the authors do make in regard to sunspots is that the Maunder Minimum, a period of low sunspot activity, from 1645-1715, coincided with the peak of the Little Ice Age.

The authors present no solutions for the people of California, for their ability to survive, much less flourish, during what they assert is a future that will see decades-long megadroughts, which may have already begun. All that civilization can do is learn to conserve, and to adjust to whatever nature gives us, since, obviously to the authors, mankind cannot adjust nature. Only once, do they even mention the possibility of seawater desalination, and in a manner that virtually dismisses it. But, unlike author Marc Reisner, who goes further, demanding that mankind virtually abandon the West and let nature prevail, they do not directly attack the water-management system that was completed in California 40 years ago. Yes, it has been 40 years since any significant water project has been built in California, and in those 40 years, the population of the state has almost doubled.

Reisner, who published *Cadillac Desert: The American West and Its Disappearing Water* in 1986, is a hero of those who wish to dismantle the existing water-management systems of the West, including the destruction of all the dams on Western rivers. Reisner’s book at least recognizes and acknowledges his enemy. In his

chapter “Civilization—If You Can Keep It,” he highlights the one policy that scares the hell out of environmentalists: “Suppose, though, that it were possible to solve at one stroke all the West’s problems with water. Suppose you could import into the American West enough water to allow irrigation to continue, even to expand, for another three or four hundred years...” He then goes on to describe NAWAPA in great detail, and the history of how environmentalism killed it by the 1970s. Then, he writes:

“Suddenly, the monster project that had been all but given up for dead began to twitch again. In October of 1980, at a California conference on ‘A High-Technology Policy for U.S. Reindustrialization’ sponsored by the Fusion Energy Foundation [co-founded by Lyndon LaRouche—ed.]—an offshoot of the U.S. Labor Party, which despises the Soviet Union but envies its inveterate commitment of gargantuan public works—Dr. Nathan W. Snyder of the Parsons Company reintroduced NAWAPA to a large and enthusiastic audience...”

Creating the Future

Perhaps we should not be too harsh on Ingram and Malamud-Roam, for they are products of 100 years of

the destruction of science, beginning with the 1900 conference in France that ushered in the determination by David Hilbert and Bertrand Russell to replace science with mathematics. Then, with the assassination of President Kennedy 50 years ago, and the beginning of the cultural paradigm-shift away from at least building infrastructure, and the adoption of the green agenda of depopulation, the last two generations of scientists have been more and more shaped and controlled by an oligarchical intent to destroy man’s creativity.

As the great Ukrainian-Russian scientist Vladimir Vernadsky demonstrated, rather than man merely adjusting to “nature,” man is not only created by nature, but is nature’s most perfect creation, in that, unlike the rest of nature, man is a willfully creative force in the universe. That creative power has given the human species the power to adjust nature to accord with mankind’s needs and well-being; to reshape nature’s processes by increasing man’s understanding of the principles of the universe, which are really only known to man by the effects of his action on that universe. That is how mankind knows the future—because he creates it from his imagination, an imagination that brings into being that which never before existed.

LaRouchePAC Special Report

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