Something New Under the Sun: An Environmental History of the Twentieth-Century World

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The history of the twentieth century is most often told through its world wars, the rise and fall of communism, or its economic upheavals. In his startling new book, J. R. McNeill gives us our first general account of what may prove to be the most significant dimension of the twentieth century: its environmental history. To a degree unprecedented in human history, we have refashioned the earth's air, water, and soil, and the biosphere of which we are a part. Based on exhaustive research, McNeill's story—a compelling blend of anecdotes, data, and shrewd analysis—never preaches: it is our definitive account. This is a volume in The Global Century Series (general editor, Paul Kennedy).

Something New Under the Sun: An Environmental History of the Twentieth-Century World Details

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From Reader Review Something New Under the Sun: An Environmental History of the Twentieth-Century World for online ebook

YHC says

This is a book not so glorious for homo sapiens, the foot prints we have left for this earth have caused a lot of irreversible damages.
The author discussed from seven aspects : ?? ????lithosphere??????pedosphere??????atmosphere????? ?hydrosphere??????biosphere?to let us understand how we are able to destroy so rapidly in such short time.
Bravo! I can not find any other species on earth could be this greedy like humans.
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Dewey says

In Something New Under the Sun, J.R McNeill analyzes the environmental transformations and degradations that have occurred in the past 100 years. Examining vast arrays of data, McNeill details the impact of human developments and economic growth on the environment. Paradoxically, the human race’s unique abilities to adapt and harness the environment that have allowed it to survive millennia, might also cause such environmental problems to ultimately lead to its demise. The successes of the book in cataloguing the consequences of the current Anthropocene era in which human actions are the most important actions in biological evolution leaves important questions about whether humanity will be able to continue creating technology to outpace environmental decay.
McNeill systematic breakdown of human impact on the environment begins with the soil and the lithosphere. Between natural soil erosion and the effects of human use, soil degradation now impacts one third of all land in the world, and while improved fertilizing techniques mitigate the decrease in productive land capacity,

further damage will provide increased constraints that are expensive or impossible to overcome through current technologies. McNeill then discusses atmosphere pollutants that occurred due to increases in human population and industrialization. The development of industrialized mega-cities like New York and Beijing, while providing significant benefits to economic growth also served as a boon to atmospheric pollution including the presence of CFCs that lead to global warming. Efforts to curb atmospheric pollution despite some success since 1940, have not proven adequate to reverse the effects of industrialization over the century. McNeill's reliance on the UN's IPCC report to discuss climate change does not mention the contentious nature of the IPCC report, and thus the conclusions he draws may seem illegitimate to some.
Like atmospheric pollution, human development wrought significant damage on the quality of water. Organic chemicals and the pressures of overpopulation led to widespread polluted water, causing the deaths of millions of people, animals, and plants in the twentieth century. Although water treatment processes lessened constraints of the water system's natural ability to deal with waste, damage to the water system has proved difficult to reverse. Further, efforts to divert fresh water for human use through dams, artificial lakes and the draining of wetlands create as many new water resource problems as they initially solve. The Tennessee Valley Authority and the Hoover Dam, first seen as man's conquering of geography, are political solutions that created lasting environmental problems. The Chinese Three Gorges Dam diverted water to water-starved regions of China, but its effects have created a water shortage in the north for which the government must build another dam project to address.
McNeill next examines changes in the biosphere including the rise of contagions due to transport and urbanization and their subsequent fall due to antibiotics. He shows the tremendous increase in arable land production due to stronger technologies and the spread of the staple crops that Diamond initially identified and the parallel rise of bio-extinctions due to human tampering with the natural environment. The final section of the book shows how the rise of technology and mass-consumptive culture fundamentally changed the impact of human life on the environment. Here McNeill's distillation of two-hundred years of changes in energy usage does not provide the reader with enough historical background and cost-benefit analysis to understand arguably the most important development in human technology and its effects on the environment. McNeill then discusses the degree to which environmental degradation the increased focus on economic growth fueled by both capitalist and socialist systems, and war.
McNeill's approach to analyzing the environmental changes of the past one hundred years successfully contends that humans created an eccentric era whose effects cannot be understood until they are witnessed. One potential drawback of McNeill's examination is his accounting of each human life as equally important, and a greater number of human lives saved as a better outcome than the alternative. While from a modern human rights standard this makes sense, this schema might make less sense to others who might value one particular ethnic group's progress as supreme to others, or the equilibrium of nature as paramount to human life. Another issue with the book is that by attempting to catalog such a wide variety of environmental changes, the book sacrifices depth in any particular aspect of the environment. Because this can be alleviated through further reading of some of the sources present in the bibliography, this is a minor criticism. Finally, although he makes no promises to do so, the book's complete lack of predictions for the future, and policy recommendations leave the reader feeling gloomy and helpless. The author's case for the impact human life on environmental change is so compelling, that it begs asking, if it is futile to try to fix the problems caused by our ancestor's unintended impact on the environment. For if the book succeeds in one area, it is in showing the "tragedy of the commons" where common goods are destroyed because no one person has an incentive to provide the public good of a healthy environment. Under the Sun leaves the reader depressed at the prospects for preventing further environmental damage and scared at the thought of what could happen if something does not drastically change.
The environmental decline that the globe is beginning to experience offers little solace to groups of people that did not have access to Diamond's package, the competition that forced Europe to develop improvements technologically, or the peoples that suffered from exploitative colonial rule. While global institutions and strategic restraint can attempt to create a regime that slows down the pace of environmental decline, the entire biosphere faces the yet unknown consequences of the human experiment equally.

Malex says

Great book! A balanced, well-researched look at humans' impact on the environment in the 20th century. A good book to hand to intellectually-inclined enviro-skeptics. And, for that matter, to off-the-wall lefties.

Dikshant Agarwal says

Being a technological buff and believing in credo of solving all problems through technological advances, this book gives a perspective from the other side of things. According to me, it might explain the fermi paradox and why aliens might not have found us. A really captivating read.

Riley says

This environmental history is based on a fascinating premise: That because of all the technological changes that the 20th century engendered, its impact on the world we live in was unlike any other era's.

On the demerit side, the book reads like the textbook that it is. And because it casts such a wide net -- examining everything from whaling in Japan to groundwater in the high plains of the United States -- it takes on a survey-like quality in which too many topics are too briefly touched upon.

Michael Brickey says

In order to be an activist for change one must understand the multiple histories of all things status quo. J.R. McNeill lays out the facts in such a way that is informative, but more importantly, encourages you to read on. Too often a history text will lack a narrative, but this one does not. If you'd like to learn more about the environmental transformations of the 20th century, anthropogenic or not, I recommend this book.

Eddie Bartoletti says

I read Something new Under the Sun by John Robert McNeill. I had to read this book for academic decathalon , and it was the social studies book. This book is mainly about population growth throughout history. It is also about the immigration around the world and how it affected the land, air, and people around it. The major themes of Something New Under the Sun are that population growth and immigration are not helping the land but hurting the land in every way, and that we are using up all of our natural resourses quickly. This book looked really boring when I picked it up and started to read it. I was right that this book was extremely boring and just not fun to read. This book was written with a pretty good flow but I got so bored that at some times it almost made me sleep I was so bored. I would recommend this book to people who have nothing else to read and just want to read a book. I would tell people that you have to pay attention very well in this book because it is very easy to get distracted . I would never have a kid read this boring

book and I would give it maybe to a college kid to read.

T.R. says

This book, which aims to present an ecological history of the 20th century, but which does more than that, is one of the first really comprehensive global environmental history books I've read. It is balanced, mostly neutral in tone, has a historian's caution in interpreting past and recent events and prognoses for the future. While generally well written, it is a little less engaging in the beginning but becomes better towards the end.

The span is impressive: effects on soil, water, air, ecosystems, and biodiversity; themes of economic growth, industrialisation, farming of land and water and ocean and the so-called Green Revolution, dams and infrastructure, democratisation, coal, oil, and energy, globalisation, medical and public health changes, and, of course, environmentalism itself. Its pages encapsulate an amazing range of items and ideas: from the history of chainsaws and tractors to cars and nuclear power, from the history of chemical fertilizers and leaded gasoline to CFCs and greenhouses gases.

Most fascinating of all are the accounts of the people responsible and the nations underlying these changes and how people and nations have changed and been changed by the environment. There is some interesting sidelights to read here. How Fritz Haber, the co-inventor of the Haber-Bosch process that brought us today's urea and nitrogen crisis, also spent World War I creating poison gas for the German military, which led his wife to commit suicide. How Thomas Midgely, the inventor of 'freon', the first of the ozone-depleting chlorofluorocarbons (CFCs), and of the use of lead in engine performance “had more impact on the atmosphere than any other single organism in earth history”. Midgely later contracted polio and invented a peculiar contraption to get himself in and out of bed, which ultimately went awry and strangulated him to death.

The chapter on air pollution makes fascinating and compelling reading, highly relevant to today's context. How a London fog of 1873 was so dense that people walked into the River Thames because they couldn't see it. How air pollution killed as many people as were killed in the 20th century in both world wars combined, “similar to the global death toll from the 1918–1919 influenza pandemic, the twentieth century’s worst encounter with infectious disease”. How, for people “... breathing Calcutta’s air after 1975 was equivalent to smoking a pack of Indian cigarettes a day. Nearly two-thirds of the population in the 1980s suffered lung ailments attributed to air pollution, chiefly particulates.” How “Coal soon signed its own death warrant as London’s fuel by killing 4,000 people in the fog of December 4–10, 1952. Chilly weather and stagnant air meant a million chimneys’ smoke...”. McNeill writes about urban smog and indoor pollution from burning coal and biomass in the domestic hearth, adding chillingly how air pollution only added to the environmental crisis brought by water pollution in the twentieth century. “Indoor air pollution, particularly in the poorer countries where biomass and coal served as domestic fuels, produced the same ailments and probably killed millions more. That said, it is well to remember that polluted water caused far more death and disease than did polluted air in the twentieth century.”

Fascinating and manifold, McNeill recounts a range of events of great environmental import: the Dutch transmigration of 1905 in Indonesia, the Soviets ploughing into the steppes, the Brazilian push into Amazonia, waste management in Curitiba and Tokyo and Mexico, Peru's anchoveta collapse and the assault on the world's fisheries, the dam-building boom in the 1960s when at least one dam was being built per day on average in the world, the ecological footprint of cities from Delhi and Beijing and Singapore to others, the oil spills in Nigeria and the history of dependence on coal and oil, about medicine and public health and the impact of small pox and its eventual conquest until only “samples of the virus remain in freezers in laboratories in Atlanta and the Siberian city of Koltsovo” and so on and on. McNeill also has a quirky way of

looking at world events. Writing about invasive alien species, he says: “So, in the tense Cold War atmosphere of the early 1980s, American ecosystems launched a first strike with the comb jelly and the USSR’s biota retaliated with the zebra mussel. The damaging exchange probably resulted from the failures of Soviet agriculture, which prompted the grain trade from North America: more trade, more ships, more ballast water.”

Writing about the environmentalism and the global fixation on a single-point agenda of economic growth, he also draws on the Gandhi – Nehru divide, quoting Gandhi: “'God forbid that India should ever take to industrialism after the manner of the West…. If an entire nation of 300 million [this was in 1928] took to similar economic exploitation, it would strip the world bare like locusts.' Gandhi was exceptional: most Indian nationalists, like Jawaharlal Nehru, wanted an industrial India, locustlike if need be.” And how independence from colonial powers did little to transform the trend of human impact on the environment: “In environmental matters, as in so many respects, independence often proved no more than a change in flags.”

McNeill draws a brief history of the environmental movement and how it was fostered by effective communication of science and ideas, singling out the work of the author of Silent Spring. “Successful ideas require great communicators to bring about wide conversion. The single most effective catalyst for environmentalism was an American aquatic zoologist with a sharp pen, Rachel Carson (1907–1964).” Yet how has the movement fared in bringing change? Mc Neill writes: “When Zhou Enlai, longtime foreign minister of Mao’s China and a very worldly man, was asked about the significance of the French Revolution some 180 years after the event, he replied that it was still too early to tell. So it is, after only 35 years, with modern environmentalism.”

In the end, McNeill highlights how both ecology and history are highly integrative disciplines (as this book itself highlights) and that they need to understand and work with each other if we are to make sense of our environmental movement, past and future.

Chris Cook says

The subject matter might be depressing to most people, but McNeill has put together a highly readable and informative book here. I feel a lot more knowledgeable about the various environmental impacts the 20th century wrought on this fragile earth we call home. It's a well-researched wake-up call that makes clear we need to do everything we can to reverse the environmental damage we have done.

Joy says

I love the big idea behind this book: to write a global history of the changing world environment throughout the 20th century. There is some sense in which any history of the environment has to be global, for where could we draw the line between what matters and what doesn't matter to any given setting? We are one, heal the world, etc. Commensurate with its big idea, McNeill's book follows big trends, beginning with global population explosions, the changing character of the world's soil, atmosphere, water conditions, microbial landscape, and biosphere (including farming and fishing practices).

Drawing attention to these connections on a broad scale is admirable and important, but very difficult to accomplish in a historically responsible way. McNeill's attempt to bring history, not just changes in nature, into the picture of broad 20th century change amounts to pointing out example cases from around the world.

For example, in his discussion of air pollution he focuses on London's terrible smog problem between 1870 and 1900. He also discusses what he calls "megacities", or cities without enough "civic engagement" to conquer the smog problem. These types of grand macro-classifications just aren't historically convincing. I agree wholeheartedly with the notion that such problems are intrinsically global, but I think McNeill's method for showing us this leaves a lot to be desired. It would perhaps have been more historically interesting to focus on the industries of a particular region and its ever-outward radiating impacts and responses to local conditions (perhaps somewhat in the manner of Cronon). The hodgepodge nature of his global examples gives us interesting tidbits, but don't really give us a good picture of a global interaction between people and physical conditions.

At base, I think this sort of account should be approached in a bottom-up way as opposed to a top-down way. Many historians are already engaged in this, and there is a thriving community of researchers investigating the relationships between evolution, technology and culture. For example, Jablonka and Lamb's *Evolution in Four Dimensions*, and Alex Mesoudi's *Cultural Evolution*. These books don't sufficiently grapple with the changing ecosystem, but they provide productive models for establishing bottom-up approaches to integrating bio- and culture talk. As a final point, I wasn't very impressed with the chapter about microorganisms. Perhaps, having been published in 2000, the research in this area wasn't sufficiently aligned with the idea that humans depend in a myriad of positive ways on little critters. McNeill focused primarily on microorganisms as agents of disease. This is important, but neglects the majority of bugs we live with and depend on in our daily lives.

As a final thought, perhaps someone needed to write this book. But now we need to go back and think about these problems in more local settings, painting the picture with a much finer brush.

Heather says

a very basic, one thing after another history of environmental change around the world. a topic too large to be too deep. consequently, can be a bit boring.

Michael says

The one sentence review I just said to Joy was, "We tried to do good, but we had no idea what the fuck we were doing." She said that pretty much sums up the personal training field as well.

Maybe that is an appropriate one-sentence review for humanity as a whole.

Zach says

A very generalist environmental history of the world. With a topic that big, the book tends to skip over most of the more interesting historical moments in pursuit of a grand thesis: that humans have changed their environment throughout time. A legitimate thesis, definitely; however, if you're looking for environmental history that really gets into the contexts of particular times, the contours of particular landscapes, and the conceptions of particular people, you'd be better served with the wealth of other environmental history literature out there.

Richard Reese says

A verse* in the Old Testament proclaims, “there is no new thing under the sun.” These words come from a low-tech era when nomadic herders diminished their ecosystem so slowly that little change was noticeable to the passing generations. Something New Under the Sun is the title of J. R. McNeill’s environmental history of the twentieth century. It describes a high-tech era when industrial society got thoroughly sloshed on cheap energy, and went on a berserk rampage, smashing everything.

With the emergence of agriculture, the relationship between humankind and the ecosystem took a sharp turn onto a bumpy bloody unsustainable road. There are a few places where agriculture wrecks the land at a slower pace. A region spanning from Poland to Ireland typically receives adequate rain in gentle showers, the lay of the land is not steep, and the heavy soils are not easily eroded. When the farming methods from this region were exported to North America, where heavy rains are common, it resulted in severe erosion.

Many agricultural systems flamed out and vanished long ago. China has beat the odds, and remained in the farm business for over 3,000 years. This is often cited as proof that sustainable agriculture is possible. But McNeill points out that their longevity is the result of sequentially replacing one unsustainable mode with a different unsustainable mode. They will eventually run out of tricks and flame out. A process that regularly pulverizes soils and depletes nutrients cannot have a long-term future, and irrigated systems usually flame out faster.

Food is one thing that humans actually need. McNeill describes how agriculture has become far more destructive in the last hundred years. It produces more food, degrades more land, and spurs population growth, seriously worsening many other problems. Readers learn about erosion, heavy machinery, synthetic fertilizers, salinization, pesticides, herbicides, water mining, and so on. Our ability to continue feeding a massive herd will face huge challenges in the coming years.

In addition to troublesome agriculture, we stirred fossil energy and industrialization into the pot, and it exploded. The twentieth century was like an asteroid strike — a tumultuous pandemonium never seen before, that can never be repeated. Tragically, this era of roaring helter-skelter is what most people today perceive to be “normal.” Life has always been like this, we think, because this is how it’s been since grandma was born. History Deficiency Syndrome leads to a life of vivid hallucinations. There is a highly effective antidote: learning.

The “normal” mindset is trained to focus on the benefits, and ignore the costs. With a bright torch, McNeill leads his readers down into a sacred cave, where the walls are covered with images of our culture’s darkest secrets. In this vast grotto, we record the many, many things that are never mentioned in the daylight world above, because they clash with our myths of progress and human superiority — similar to the way that dinosaur bones make creationists twitch and squirm. The bones contradict the myths, an embarrassing dilemma.

So, with the swish of a magic wand, we’ve made the bones invisible in our schools, workplaces, newsrooms, churches, and homes. We keep them in the cave. In the normal daylight world, we are constantly blasted by a fire hose of frivolous information, ridiculous balderdash, and titillating rubbish. The myths are safe. The world was made for humans. We are the greatest.

McNeill points out that a major cause of twentieth century mass hysteria was that millions of people were enslaved by “big ideas.” Some ideas are absorbed by cultures and never excreted, even stupid ideas, like the

obsession with perpetual economic growth, our insatiable hunger for stuff and status, our stunning disregard for the generations yet-to-be-born.

“The overarching priority of economic growth was easily the most important idea of the twentieth century.” We created a monster that we could not control — it controlled us. Economists became the nutjob gurus of the wacky cult of growth, and society guzzled their toxic Kool-Aid. Crazy economists, who preached that society could get along without natural resources, won Nobel Prizes. They became respected advisors to world leaders. In every newscast, you repeatedly hear the words “growth” and “recovery.” These are the yowls and howls of an insane asylum.

Environmentalists often sneer at the multitudes who fail to be enraged by the catastrophe of the week. They assume that the herd understands the issues. But the daily info-streams that deluge the mainstream world have almost nothing in common with McNeill’s model of reality. Few people in our society have a well-rounded understanding of our eco-predicaments, including most environmentalists. This world would be a much different place if McNeill’s perception of history became the mainstream, and folks could readily comprehend the harms caused by our lifestyles. Ignorance is enormously costly.

One wee bright spot in the twentieth century was the emergence of Deep Ecology, a small group of renegade thinkers that enthusiastically denounced the dead end path of anthropocentricism. For the first time in 300 years, Western people were spray-painting naughty insults on the cathedrals of Cartesian thinking — “We do not live in a machine world of soulless dead matter!” Deep Ecology succeeded in channeling bits of wisdom from the spirits of our wild ancestors.

On the final pages, McNeill does not offer an intoxicating punch bowl of magical thinking. Our future is highly volatile, even the near future is uncertain. History has little to say about sudden mass enlightenment and miraculous intelligent change. “The reason I expect formidable ecological and societal problems in the future is because of what I see in the past.”

The book is thoroughly researched, well written, and hard to put down. Readers are taken on a sobering voyage of discovery, where there are thrills and chills around every turn — mercury poisoning, radiation nightmares, soil mining, deforestation, and on and on. It’s fascinating to observe the spectacular ways that brilliant innovations backfire. Human cleverness is amazing, but it is dwarfed by our amazing un-cleverness. We weren’t made to live like this.

At the same time, human genes are about 98 to 99.4 percent the same as the genes of chimps and bonobos, our cousins who have never lost their path. They’ve been healthy, happy, and sustainable for over a million years. Circle the superior species in this picture. We have a sick culture, but our genes are probably OK. Cultures can be changed. We need to become aware of reality. We need to turn off our glowing screens, open the door, and rediscover our home and our identity. Happy trails!

* Ecclesiastes 1:9 “The thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun.”

Jason says

A fascinating history of many of the environmental problems that continue to plague the world. McNeill relates these problems as a historian, replete with interesting (if at times tragic) anecdotes. Such as the day in

1952 when particularly hazy conditions combined with an incredible amount of air pollution and stagnant winds in London resulting in the deaths of 4000 people. Or the copper mine in Ashio, Japan in the 1890s which brought on so much sulfur pollution that death rates exceeded birth rates, causing widespread protest.