

# THE WALL STREET JOURNAL.

BOOKS

## ‘The Fall of the Wild’ Review: Turning Back the Clock

Are futurists who favor ‘de-extinction’ allies of the conservationist movement, or philosophical opponents?



A 1754 hand-colored lithograph of an American bison or buffalo by Georges-Louis Leclerc. PHOTO: GETTY IMAGES

By *Jennie Erin Smith*  
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William Temple Hornaday (1854-1937), the founding director of the Bronx Zoo and an advocate for America's vanishing bison, warned in 1913 that no species pushed into extinction "can at any time be brought back." By that time two other American species faced their imminent demise: the once-abundant passenger pigeon and the heath hen, a grouse-like bird that lived along the Eastern seaboard.

Hornaday is credited with having saved the bison by moving a remnant herd to the Bronx to be bred and later released. It was an early conservation feat that is still celebrated today—the bison adorns the emblem of the U.S. National Park Service. But as Ben A. Minteer, a professor of environmental ethics and conservation at Arizona State University, notes in "The Fall of the Wild," his wise and subtle book on the ethics of modern wildlife conservation, Hornaday, a taxidermist by trade, had at first set out to secure museum specimens of the last bison. He believed the species' fate to be already sealed, and if the bison were bound for extinction, he reasoned, it was preferable to have a few stuffed ones than to have nothing. Only later did he conclude that the bison might, with great effort, be salvaged.

There is always a tension in conservation between the urge to save a species by any means necessary and a sort of fatalism suggesting that if a species is close enough to extinction, you might as well let it go and learn from the experience. In the 1980s, the California condor nearly died out thanks in part to the insistence by one prominent conservationist that if the imperiled bird had to be artificially raised in zoos to survive, then "death with dignity" was a better bet. There's still a debate, Mr. Minteer notes, about whether the great auk, a seabird that has been extinct since 1844, would be alive today if naturalists had protected the last breeding pairs instead of grabbing their skins and eggs.

Today's biologists are no less eager to collect what are called "voucher," or reference, specimens for museums when a photograph and DNA sample might suffice—even when the organism could be among the last of its kind. Indeed, Mr. Minteer finds to his chagrin that some scientists appear all the more tempted to plop something into formaldehyde if they feel they're not likely to see it in the wild again.

The question of how far to go to save a species has become more urgent as habitat fragmentation, climate change and other human factors have pushed the rate of extinction to nearly 1,000 times what is considered normal. Traditional conservationists, who value protecting wilderness above all, have had to face off against a more and more influential group of revisionists who argue that since we've reached the so-called Anthropocene age, in which virtually all the earth has been altered by mankind's heavy footprint, nothing is truly "wild" anymore and we might as well, in Mr. Minteer's paraphrase, "focus more seriously on meeting

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human needs, wants, and interests.” As he writes, the desire of the revisionists “to toss out musty preservationist values and mythical ideals of an untouched (and untouchable) ‘pristine’ wild is increasingly widespread in contemporary conservation science and thought.” The concept of the Anthropocene, then, serves not as a matter-of-fact description of what our world has become but as “an idea some believe compels us to loosen our moral and political commitments to traditional nature protection,” Mr. Minter laments.

Recent years, Mr. Minter writes, have seen the emergence of an even starker form of revisionism, one marked by “unabashed techno-optimism,” a disdain for traditional approaches and a desire to solve conservation problems through increasingly artificial and elaborate means. On one end of this spectrum is “assisted colonization,” in which species threatened in their native ranges are moved outside them, sometimes very far—imagine loosing herds of African elephants in the American Midwest—and possibly without hope of return. On the other end is the idea of de-extinction, a type of resurrection biology that aims to bring back lost animals through cloning, selective breeding or editing the genomes of their closest living relatives. The passenger pigeon, the heath hen and the thylacine—a carnivorous marsupial that once lived in Australia—are all considered candidates. Supported mainly by wealthy technology executives, de-extinction borrows the language and ethos of engineering. One proponent, the Harvard geneticist George Church, has described the heath hen as “basically a slam dunk” for de-extinction: “We can just make a few adjustments to the DNA of the greater prairie chicken. . . . As an engineering project, birds are easy.”

In “The Fall of the Wild,” Mr. Minter chafes at such statements by de-extinction advocates, and lays out, across half a dozen carefully crafted chapters, why their techno-cheerleading irks him. He consults the writings of Aldo Leopold (1887-1948), the American forester and ecologist whose “A Sand County Almanac,” published a year after his death, is considered a classic text of conservation. What would Leopold, who lived in a time when conservation was more local and more about preserving the health of the land, think of assisted colonization and the ambitions of the de-extinctionists? Conducting a sort of exegesis of Leopold’s works, Mr. Minter argues that Leopold believed in the tools of agriculture and forestry when it came to saving species. But Leopold also insisted that conservative measures be tried—and exhausted—before radical ones are applied. In 1938 he cautioned that while “our tools are better than we are, and grow faster than we do,” they still don’t allow for living on a piece of land without spoiling it.

Mr. Minter’s beef with extreme conservation solutions is that they’re more about glorifying the tools, and the human ingenuity behind them, than about the organisms or ecosystems they purport to save. He reserves special criticism for Stewart Brand, a techno-environmentalist and prominent voice for de-extinction.

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Mr. Brand claims to be both a pragmatist and a powerful architect of life (“We are as gods and might as well get good at it,” he has long said), but these are two ideas that Mr. Minter finds irreconcilable. True pragmatism, he says, entails the “recognition of our own imperfections, our awareness of the contingency of experience, and our sense of human limits in nature.” Attempting to revive lost species is a refusal to accept those restraints, an effort to sneak out from under the dark shadow of our history.

—Ms. Smith is the author of “Stolen World: A Tale of Reptiles, Smugglers, and Skulduggery.”