

## **UC Davis**

### **Norma J. Lang Prize for Undergraduate Information Research**

#### **Title**

Gary Snyder's Pleistocene Environmentalism

#### **Permalink**

<https://escholarship.org/uc/item/5jf4v6p5>

#### **Author**

Montgomery, Michael

#### **Publication Date**

2020-08-18

Michael P. Montgomery

### Gary Snyder's Pleistocene Environmentalism

In 1873, as he was wont to do, John Muir effused about glaciers. Imagining Tuolumne Canyon covered by ice, which Muir believed had long ago carved its topography, he wrote, “The last days of this glacial winter are not yet past; we live in ‘creation’s dawn.’”<sup>1</sup> Nearly a century later, in 1955, the poet Gary Snyder wrote of the same landscape, now protected—thanks largely to Muir—in Yosemite National Park:

In ten thousand years the Sierras  
Will be dry and dead, home of the scorpion.  
Ice-scratched slabs and bent trees.  
No paradise, no fall,  
Only the weathering land [...]<sup>2</sup>

At the time they wrote these passages, Muir and Snyder were at the forefront of broad shifts in American environmental sentiment. For both authors, knowledge of an Ice Age was at the core of their environmental vision. What set Snyder apart, aside from a projection of future climate that would have been mostly speculative during Muir’s time, was that he extended his Ice Age worldview to more than just glaciers. Snyder was not alone in doing this. During the mid-twentieth century, the Ice Age was a prominent part of a wider conversation on Earth’s past and future in a way it no longer is today. Snyder’s work serves as a window into that conversation, and particularly into a strain of thought I term Pleistocene Environmentalism, whose calls for reform were founded in an ecological awareness of the Pleistocene epoch and its succession of

---

<sup>1</sup> John Muir, “Explorations in the Great Tuolumne Canyon,” in *John of the Mountains: The Unpublished Journals of John Muir*, ed. Linnie Marsh Wolfe (Boston: Houghton Mifflin Company, 1938), 72.

<sup>2</sup> Gary Snyder, “Milton By Firelight,” in *Riprap and Cold Mountain Poems*, 50<sup>th</sup> Anniversary Edition (Berkeley: Counterpoint Press, 2009), 9.

glacial periods, known collectively as the Ice Age. Focusing on two of Snyder's poems, their Ice Age subjects, and other contemporary authors associated with those subjects, this paper traces the development of Pleistocene Environmentalism in the 1960s and '70s, and argues that it owes much of its historical significance to Snyder.

Snyder's engagement with the Ice Age began early in his life and, like Muir, in alpine terrain. He climbed glaciated Mount Saint Helens in 1945, at age 15, and Mount Rainier two years later.<sup>3</sup> Summitting the latter he narrowly avoided a collapsing icefall, which he wrote in his journal loosed "chunks of ice as big as houses, grinding, crashing, falling in an ear-smashing roar" toward him and his companions.<sup>4</sup> A month later, Snyder recorded a rock formation in the Olympic Mountains that he interpreted as "piled up through the efforts of an ancient glacier."<sup>5</sup> In 1952 and 1953 he spent the summer as a fire lookout in the North Cascades, a vantage which afforded daily observation of the region's "ice-scoured valleys / swarming with plants."<sup>6</sup> Again like Muir, Snyder understood that nutrient-rich soil deposited by retreating glaciers allowed trees and shrubs to take root where otherwise they could not.<sup>7</sup> Such ideas and experiences gave him an appreciation of the power and beauty of Pleistocene ice, some of it remnant, as on Mount Rainier, and some of it long since melted away, as in the Sierra backcountry he wrote of in the

---

<sup>3</sup> Gary Snyder, "The Climb" and "Atomic Dawn," in *Danger on Peaks* (Berkeley: Counterpoint Press, 2004), 7-9, and Gary Snyder, "Journal: August 3, 1947," Gary Snyder Papers (Box 1:84, folder 1), Special Collections, University Library, UC Davis.

<sup>4</sup> Snyder, "Journal: August 3, 1947."

<sup>5</sup> Gary Snyder, "Journal: September 10, 1947," Gary Snyder Papers (Box 1:84, folder 1), Special Collections, University Library, UC Davis.

<sup>6</sup> Gary Snyder, "Lookout's Journal," in *Earth House Hold: Technical Notes and Queries to Fellow Dharma Revolutionaries* (New York: New Directions, 1969), 5.

<sup>7</sup> A good illustration is Muir, *John of the Mountains*, 109.

excerpt that opens this essay. But it was not until 1964 that Snyder drew on this appreciation to craft the most direct statement anyone had yet made of an Ice Age environmental ethic.

That statement came in Snyder's poem "To the Chinese Comrades." Written in 1964<sup>8</sup> and published in Snyder's third American collection, *The Back Country*, "To the Chinese Comrades" dealt in part with environmental degradation in China. The subject was topical. Since 1958, the Chinese Communist government had rushed headlong toward agricultural collectivization and modernization, accelerating human-induced processes of deforestation, erosion, and desertification that had been underway for thousands of years.<sup>9</sup> Seen in Snyder's poem against the inexorable cycles of Pleistocene climate, China's impatience with and misuse of its landscape became readily apparent:

*The ancestors*  
 what did they leave us.  
 K'ung fu-tze, some buildings remain.  
     —tons of soil gone.  
 Mountains turn desert.  
 Stone croppt flood, strippt hills.  
 The useless wandering river mouths,  
 Salt swamps,  
 Silt on the floor of the sea.

Wind-borne glacial flour—  
 Ice-age of Europe,  
 Dust storms from Ordos to Finland  
 The loess of Yenan  
     glaciers  
     "shrink

---

<sup>8</sup> Gary Snyder, "Poem: To the Chinese Comrades, February 3, 1964," Gary Snyder Papers (Box 1:21, folder 46), Special Collections, University Library, UC Davis.

<sup>9</sup> Jing-Feng He, Jin-Hong Guan, and Wen-Hui Zen, "Land Use Change and Deforestation on the Loess Plateau," in *Restoration and Development of the Degraded Loess Plateau*, ed. Atsushi Tsunekawa et al. (New York: Springer, 2014), 118.

and vanish like summer clouds...”<sup>10</sup>

In the poem, Snyder took the ancestors of Chinese civilization to include glaciers. And with good reason. For millennia, silt deposited by meltwater from European and Himalayan glaciers had been picked up by the strong winds that characterized the Pleistocene. Many of the winds carried the silt to China, where it accumulated in layers called loess.<sup>11</sup> In northern China in particular, these deposits are so common and so thick, in many places hundreds of feet deep, that villagers have lived in cave-houses dug into them for at least four thousand years. Not coincidentally, since loess can be highly fertile, this region, known as the Loess Plateau, is where Chinese agriculture began.<sup>12</sup> Inhabitants of the Plateau—“crawling out that hillside cave dirt house,” as Snyder described them<sup>13</sup>—live and farm in soil that is a literal product of the Ice Age. “To the Chinese Comrades” implied a responsibility, so far neglected, to manage that legacy sustainably. In its final two lines, Snyder echoed the sense of long-term process and periodicity suggested by his earlier reference to glaciers: “just / Wait.”<sup>14</sup> Revolution, like the buildup of loess, doesn’t happen overnight. Like advancing and retreating Pleistocene ice, the destruction China had done its environment would one day reverse. At least, that was Snyder’s hope.

---

<sup>10</sup> Gary Snyder, “To the Chinese Comrades,” in *The Back Country* (New York: New Directions, 1968), 100. The poem’s misspellings, such as “cropp’t” instead of “cropped,” are deliberate. The quotation that closes the excerpt was from John Muir, “The Ancient Yosemite Glaciers,” in *The Yosemite* (New York: The Century Company, 1912).

<sup>11</sup> John Imbrie and Katherine Palmer Imbrie, *Ice Ages: Solving the Mystery* (Hillside, NJ: Enslow Publishers, 1979), 55.

<sup>12</sup> Gideon S. Golany, *Chinese Earth-Sheltered Dwellings: Indigenous Lessons for Modern Urban Design* (Honolulu: University of Hawaii Press, 1992), 1; 4-5.

<sup>13</sup> Snyder, “To the Chinese Comrades,” 99.

<sup>14</sup> Snyder, “To the Chinese Comrades,” 102.

Snyder wasn't the only writer of the time period to use glacial metaphors in this fashion. Another who did, and whom Snyder read in the years leading up to "To the Chinese Comrades,"<sup>15</sup> was biologist Marston Bates. Humanity's "tremendous power," Bates wrote in 1960, was little more than a "split-second explosion" in Earth history. Yet "[w]ith this explosion," he continued, "man has become a geological force, like glaciation or volcanism. He not only is capable of altering the landscape and the balance of the biosphere; he has altered them."<sup>16</sup> Bates' analogy was provocative for its flipside: if human cultures were as implacable and destructive as an advancing glacier, so, too, like Snyder's "ice-scoured valleys / swarming with plants," were the disturbed habitats the cultures leave in their wake populated with lifeforms well-adapted to them, chiefly weeds, rats, and domesticated animals.<sup>17</sup> Eight years later, anthropologist Loren Eiseley invoked the Ice Age in a similar comparison in an article in *Life*. Eiseley wrote that the human species was an evolutionary outcome of a bitter, millennia-long "winter," a "tropical orphan" who had colonized high latitudes only with the greatest hardship and innovation—hence the article's title, "Man is an Orphan of the Angry Winter."<sup>18</sup> Commenting on Cold War concern over the threat of nuclear war, Eiseley offered a dramatic foil to the archaeological narrative then emerging of human origins in Africa: "The explosive force of suns, once safely locked in nature, now lies in the hand that long ago dropped from a tree limb into the upland grass. [...] We are the genuine offspring of the sleeping ice and we have inherited

---

<sup>15</sup> Gary Snyder, "Journal: September 16, 1963," Gary Snyder Papers (Box 1:85, folder 1), Special Collections, University Library, UC Davis.

<sup>16</sup> Marston Bates, *The Forest and the Sea: A Look at the Economy of Nature and the Ecology of Man* (New York: Random House, 1960), 38-39.

<sup>17</sup> Bates, 241.

<sup>18</sup> Loren Eiseley, "Man is an Orphan of the Angry Winter," *Life*, February 16, 1968, 77.

its power to magnify the merely usual into the colossal.”<sup>19</sup> Eiseley framed his unholy magnification explicitly in terms of the Ice Age, which he called a “caricature, or sudden concentration,” of natural process, a climatic extreme that had given rise to a biological one—us.<sup>20</sup>

Once again, historical context of these remarks is elucidated by a comparison to John Muir. What Muir had called “creation’s dawn” in 1873 had become, by 1968, Eiseley’s “angry winter.” Though still romanticized, the Ice Age had taken on a harder edge. As the science grew less speculative, an empirical certainty of something vast and almost inconceivably complex emerged. Far from the four-ice-age scheme that had prevailed since the nineteenth century—four periods of glaciation separated by warmer interregna known as an interglacials, of which the Holocene, or current epoch, is the most recent—it became apparent from ocean sediments in the mid-1950s that there had actually been seven complete glacial-interglacial cycles just in the last 300,000 years; the Pleistocene, and presumably the cycling, was older still.<sup>21</sup> Further confirmation of this multiplicity came from loess deposits, including those in China.<sup>22</sup> Against such a backdrop, several questions took on new importance. Why had there been so many glaciations in the first place? When was the next one due? Even before the 1950s’ advances, science fiction authors had speculated that nuclear fallout might cool Earth into a new sort of Ice

---

<sup>19</sup> Eiseley, 78B.

<sup>20</sup> Eiseley, 78B.

<sup>21</sup> Imbrie and Imbrie, 137.

<sup>22</sup> Ian Smalley, Slobodan Markovic, and Ken O’Hara-Dhand, “The INQUA Loess Commission as a Central European Enterprise,” *Central European Journal of Geosciences* 2, no. 1 (2010): 4. See also Imbrie and Imbrie, 156.

Age, later known as “nuclear winter”<sup>23</sup>—not quite Eiseley’s “angry winter” of the Pleistocene, but suggestive of it. Only slightly less ominous was a 1956 theory that predicted melting Arctic sea ice would bring a return to glacial conditions in a matter of centuries. “[F]or the first time in the history of the world, the victims of an Ice Age are going to see it coming,” a 1958 feature in *Harper’s* declared.<sup>24</sup> Though beyond the scope of this paper, rhetoric like this was fairly common in American culture until discussions of global warming began to replace it in the 1970s.<sup>25</sup> In one especially zany example, several 1962 episodes of the children’s television show *The Adventures of Rocky and Bullwinkle* seem to have been premised on the 1956 theory. The episodes depicted a sudden melting of the Arctic, resulting in near-overnight climate change that froze unwary Polynesians in blocks of ice.<sup>26</sup> However exaggerated, inclusion of such subjects on a children’s show reflected the extent to which the Ice Age had captured the public’s imagination. Combining fear, curiosity, and incredulity, it was precisely this kind of consciousness to which writers like Snyder, Bates, and Eiseley were responding.

After 1967, a fourth feeling entered that consciousness: guilt. Snyder had intimated in “To the Chinese Comrades” that people ought to be more mindful of what the Ice Age left them. He did not, however, make an accusation. Paul Martin, a paleontologist, did. And Martin’s subject was not what the Ice Age left, but what it *could* have left had humans not interfered. At

---

<sup>23</sup> Poul Anderson and F.N. Waldrop, “Tomorrow’s Children,” *Astounding Science Fiction* 39, no. 1 (1947): 67-69.

<sup>24</sup> Betty Friedan, “The Coming Ice Age: A True Scientific Detective Story,” *Harper’s Magazine*, September 1958, 45.

<sup>25</sup> Imbrie and Imbrie, 180.

<sup>26</sup> *The Adventures of Rocky and Bullwinkle*, season 3, episodes 1-7, “Topsy Turvy World,” written by George Atkins et al., aired April 1962, NBC, accessed via YouTube.



the end of the Pleistocene, dozens of species of large mammals—mammoths, ground sloths, and saber-toothed cats, to name a few—went extinct. Scientists had debated since the eighteenth century why these so-called megafauna died out.<sup>27</sup> Not until the 1960s, with the wealth of well-dated fossils then available, could a convincing case be made that humans were responsible, particularly in North America. As the timeline then stood, humans had migrated out of Africa, into Asia, and across the Bering Strait, reaching the present-day contiguous United States some 11,000 years ago. Nearly all the continent’s large, terrestrial mammals disappeared from the fossil record around that same time. Martin argued that the coincident timing was, in fact, no coincidence at all. He was not the first to notice this, but he was the first to argue the connection forcefully and coherently to a non-academic audience, which he did in a 1967 essay in the magazine *Natural History*. Martin promulgated the name for his hypothesis as his essay’s title: “Pleistocene Overkill.” The idea had immediate appeal. “[I]t was easy to conceptualize,” Lisa Nagaoka and colleagues wrote in 2018, “because the impacts of (and protests against) human-caused environmental degradation were on the nightly news.”<sup>28</sup> The choice of “overkill” in the name was especially timely. “Nuclear overkill,” the stockpiling of enough atomic weaponry to devastate the world many times over, was a household phrase in the late 1960s.<sup>29</sup> In *Natural History*, Martin exploited this association. “If fire was used in hunting,” he wrote, “man-caused extinction becomes easier to understand, because fire drives necessarily involve large amounts of

---

<sup>27</sup> Donald K. Grayson, “Nineteenth-Century Explanations of Pleistocene Extinctions: A Review and Analysis,” in *Quaternary Extinctions: A Prehistoric Revolution*, ed. Paul S. Martin and Richard G. Klein (Tucson: University of Arizona Press, 1984).

<sup>28</sup> Lisa Nagaoka, Rick Torben, and Steve Wolverton, “The overkill model and its impact on environmental research,” *Ecology and Evolution* 8, no. 19 (2018): 9684.

<sup>29</sup> A. Wenger and J. Suri, “At the Crossroads of Diplomatic and Social History: The Nuclear Revolution, Dissent, and Détente,” *Cold War History* 1, no. 3 (2001): 15; 27.

waste—whole herds must be decimated in order to kill the few animals sought for food.”<sup>30</sup> The essay’s first page displayed the title above a drawing of a club-wielding man in a loincloth, one foot astride the downed carcass of a mammoth.<sup>31</sup> The import was impossible to miss.

More than just the fate of long-dead mammoths was at stake, however. Martin’s ideas challenged long-held notions of pre-Contact Americans as ecological stewards who lived in harmony with the land and its animals. He described Paleoindians, as America’s first inhabitants were known, as “superpredators” who had “swept” south from Alaska, decimating naïve “big game” as they went.<sup>32</sup> Concluding the *Natural History* piece, he wrote, “that business of the noble savage, a child of nature, living in an unspoiled Garden of Eden [...] is apparently untrue, since the destruction of fauna, if not of habitat, was far greater before Columbus than at any time since.”<sup>33</sup> Such iconoclasm was both in vogue and out of vogue at the same time, as it partially exonerated the era’s usual targets of environmentalist ire. Historian Lynn White, Jr., for instance, who traced modern environmental woes to the influence of Christianity and Western science over the last several hundred years, wrote also in 1967 that “no creature other than man has ever managed to foul its nest in such short order.”<sup>34</sup> Martin argued that the nest had been fouled from the very beginning. Thanks to his radical reinterpretation of humanity’s relationship with its Ice Age past, mammoths and their ilk became the centerpiece of a new and sustained conversation,

---

<sup>30</sup> Paul S. Martin, “Pleistocene Overkill,” *Natural History* 76, no. 10 (1967): 36. In a fire drive, animals are encircled or driven to injury in ravines by an expanding line of burning grass.

<sup>31</sup> Martin, “Pleistocene Overkill,” 32.

<sup>32</sup> Martin, “Pleistocene Overkill,” 37.

<sup>33</sup> Martin, “Pleistocene Overkill,” 38.

<sup>34</sup> Lynn White, Jr., “The Historical Roots of Our Ecologic Crisis,” *Science* 155, no. 3767 (1967): 1204.

joining the glaciers and people—Bates’ “geological force,” Eiseley’s “tropical orphan”—that otherwise dominated Pleistocene environmental metaphors. Yet the stringency of Martin’s writing left little room for reconciliation. What was missing from his argument was a sense of cultural continuity—and not just as mutual “superpredators”—with the Paleoindians themselves.

Snyder offered this continuity. The most notable example was his poem “Toward Climax,” published in 1975 in *Turtle Island*. From African savanna to the war in Vietnam, “Toward Climax” depicted human evolution as a process of ecological succession, soon to culminate in a complex, stable condition similar to that of an old-growth forest. “[M]aturity. stop and think. draw on the mind’s / stored richness,” Snyder wrote.<sup>35</sup> The old-growth condition he envisioned for humanity was one of retrieval, of “decomposition,” a calm re-immersion in an ancestral ecology. Such a mindset necessarily followed, and learned from, earlier stages in the succession, in which Pleistocene Overkill played an integral part:

sewn hide clothing, mammoth-rib-framework tent.  
 [.....]  
     opening animal chests and bellies, skulls,  
     bodies just like ours—  
 pictures in caves.  
 [.....]  
 big herds dwindle  
     (—did we kill them?  
     thousand-mile front of prairie fire—)<sup>36</sup>

Snyder was responding in part to a 1973 article Martin had published in *Science*, which Snyder had read.<sup>37</sup> In the article, Martin proposed a model he would later call “Blitzkreig,” in which

---

<sup>35</sup> Gary Snyder, “Toward Climax,” in *Turtle Island* (New York: New Directions, 1975), 84.

<sup>36</sup> Snyder, “Toward Climax,” 82-83.

<sup>37</sup> Gary Snyder, “Journal: October 24, 1973,” Gary Snyder Papers (Box 1:87, folder 4), Special Collections, University Library, UC Davis.

American megafauna were exterminated by a rapidly advancing, continent-wide “front” of hunters.<sup>38</sup> One of the model’s tenets was that extinction took place so rapidly, within ten years along the front itself, that it left few identifiable kill-sites, and therefore lacked any positive proof in the fossil record. Snyder took this image and its uncertainty and ran with them. Framing overkill as a question, and a parenthetical one, no less, he conceived of megafaunal extinction as but one especially provocative misstep in a much longer list of human accomplishments and mistakes: “complex grammars” and “drain[ed] swamps for wet-rice grasses,” “great dream-time tales” and “raid[s] for wealth.”<sup>39</sup> All of it, for good or bad, was a step in the human story. The “we” in “did we kill them?” was the poem’s only pronoun. No other was needed.

“Toward Climax” was just one of Snyder’s statements to this effect. Some of the more discreet were date attributions he gave to journals, poems, and essays where he counted years not from the time of Christ, but from the earliest-known cave paintings. Snyder called this “the forty-thousand year time scale,” and explained his rationale in a 1975 talk:

I can’t think about our situation in anything less than a forty thousand year time scale. [...] [W]e can be sure that through the whole of that period man has been in the same body and in the same mind that he is now. [...] In the 40,000 year time scale we’re all the same people. We’re all equally primitive, give or take two or three thousand years here or a hundred years there.”<sup>40</sup>

Dating writing to the year 40,072 instead of 1972, for example, as Snyder did in another of *Turtle Island*’s seminal environmental poems, acknowledged this prehistoric heritage.<sup>41</sup> Such a

---

<sup>38</sup> Paul S. Martin, “The Discovery of America,” *Science* 179, no. 4077 (1973).

<sup>39</sup> Snyder, “Toward Climax,” 83.

<sup>40</sup> Snyder, “The Politics of Ethnopoetics,” in *The Old Ways* (San Francisco: City Lights Books, 1977), 16; 33.

<sup>41</sup> See Gary Snyder, “Mother Earth: Her Whales,” in *Turtle Island* (New York: New Directions, 1975), 49.

perspective was historically significant because at the time Snyder formulated it, the Deep Ecology movement was coalescing around him. The movement formally began in 1973, choosing its name to denote an alternative to the so-called “shallow ecology” of mainstream environmentalism. Its proponents called for a recognition of ecological value independent of human utility or aesthetics. They branded themselves “ecocentric” rather than anthropocentric, and argued not so much against pollution and resource misuse as against the fundamental divide humans had erected between themselves and the rest of life on Earth.<sup>42</sup> Though credited as Deep Ecology’s “poet laureate,”<sup>43</sup> Snyder offered a vision that was in fact far deeper than simple ecocentrism. Any environmental philosophy, he believed, had to have at its foundation the 40,000-year “vertical axis” of the human species.<sup>44</sup> That was why Snyder turned to Japan and China, to India, to Native America, and to tribal cultures the world over—a “Great Subculture,” he called it, with “songs going back to the Pleistocene and before.”<sup>45</sup> Western tradition was simply too short, and too shortsighted.

Many of Snyder’s contemporaries shared this view, but none put it so consistently and prominently to the public. Like Snyder, authors such as Marston Bates, Loren Eiseley, and Paul Martin looked to the glaciers, people, and animals of the Pleistocene to find antidotes or anecdotes that might be relevant to environmental concerns of the 1960s and ‘70s, particularly

---

<sup>42</sup> Bill Devall, “The Deep, Long-Range Ecology Movement: 1960-2000—A Review.” *Ethics and the Environment* 6, no. 1 (2001), 19-22.

<sup>43</sup> Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology*, (New Haven: Yale University Press, 1991), 261.

<sup>44</sup> Gary Snyder, “Poetry and the Primitive,” in *Earth House Hold: Technical Notes and Queries to Fellow Dharma Revolutionaries* (New York: New Directions, 1969), 126.

<sup>45</sup> Gary Snyder, “The Yogin and the Philosopher,” in *The Old Ways* (San Francisco: City Lights Books, 1977), 12. See also Snyder, *Earth House Hold*, 104.

nuclear war. For the most part, these authors have lapsed into obscurity, or, in the case of Martin and his overkill hypothesis, remained largely confined to the scientific literature. This has not been true of Snyder. In 1975, *Turtle Island* won the Pulitzer Prize. It has never gone out of print. Neither, for that matter, has *The Back Country*.<sup>46</sup> “Toward Climax,” one of *Turtle Island*’s closing poems, and thus a climax in its own right, remains the most visible statement of Pleistocene Environmentalism any author has yet made, including subsequent restatements Snyder made himself, such as in his 1996 book-length poem *Mountains and Rivers Without End*. To learn from the Ice Age, Snyder suggested in his early writing, was essential to the work of creating a sustainable future. In “Toward Climax,” even as Ice Age hunters killed, and perhaps overkilled, the slaughter was never senseless; indeed, it inspired art: “bodies just like ours / pictures in caves,” Snyder wrote. In “To the Chinese Comrades,” even as farmers stripped in a matter of centuries soil that had accumulated over millions of years in the Pleistocene, Snyder made it clear that the agrarian tradition was still preferable to the nuclear one: “You dont need the bomb,” he wrote, playfully admonishing Mao Zedong; “stick to farming.”<sup>47</sup> Forbearance from hunting the megafauna, patience from farming the loess—for Snyder, and increasingly for those of us facing anthropogenic global warming of the twenty-first century, the lessons of the Ice Age make it as relevant for the present as it was for the men and women, 40,000 years ago, who lived through it.

---

<sup>46</sup> James Campbell, “High Peak Haikus,” *The Guardian*, July 15, 2005, <https://www.theguardian.com/books/2005/jul/16/featuresreviews.guardianreview19>.

<sup>47</sup> Snyder, “To the Chinese Comrades,” 102. The misspelling of “don’t” is intentional; see footnote 10 above.

## Bibliography

- Anderson, Poul, and F.N. Waldrop. "Tomorrow's Children." *Astounding Science Fiction* 39, no. 1 (1947): 56-79.  
<https://archive.org/details/AstoundingScienceFictionv39n1/page/n55/mode/2up/search/ice+age>.
- Atkins, George, Chris Hayward, Chris Jenkins, and Lloyd Turner, writers. *The Adventures of Rocky and Bullwinkle*. Season 3, episodes 1-7, "Topsy Turvy World." Aired April 1962. NBC, <https://youtu.be/ByBDxl-XEE8>.
- Bates, Marston. *The Forest and the Sea: A Look at the Economy of Nature and the Ecology of Man*. New York: Random House, 1960.
- Campbell, James. "High Peak Haikus." *The Guardian*, July 15, 2005.  
<https://www.theguardian.com/books/2005/jul/16/featuresreviews.guardianreview19>.
- Devall, Bill. "The Deep, Long-Range Ecology Movement: 1960-2000—A Review." *Ethics and the Environment* 6, no. 1 (2001): 18-41. doi: 10.1353/een.2001.0004.
- Eiseley, Loren. "Man is an Orphan of the Angry Winter." *Life*, February 16, 1968, 76-86.
- Friedan, Betty. "The Coming Ice Age: A True Scientific Detective Story." *Harper's Magazine*, September 1958, 39-45. <https://harpers.org/archive/1958/09/the-coming-ice-age/>.
- Golany, Gideon S. *Chinese Earth-Sheltered Dwellings: Indigenous Lessons for Modern Urban Design*. Honolulu: University of Hawaii Press, 1992.
- Grayson, Donald K. "Nineteenth-Century Explanations of Pleistocene Extinctions: A Review and Analysis." In *Quaternary Extinctions: A Prehistoric Revolution*, edited by Paul S. Martin and Richard G. Klein, 5-39. Tucson: University of Arizona Press, 1984.
- He, Jing-Feng, Jin-Hong Guan, and Wen-Hui Zen. "Land Use Change and Deforestation on the Loess Plateau." In *Restoration and Development of the Degraded Loess Plateau*, edited by Atsushi Tsunekawa, Guobin Liu, Norikazu Yamanaka, and Sheng Du, 111-20. New York: Springer, 2014. doi: 10.1007/978-4-431-54481-4\_8.
- Imbrie, John, and Katherine Palmer Imbrie. *Ice Ages: Solving the Mystery*. Hillside, NJ: Enslow Publishers, 1979.
- Martin, Paul S. "The Discovery of America." *Science* 179, no. 4077 (1973): 969-74. doi: 10.1126/science.179.4077.969.
- Martin, Paul S. "Pleistocene Overkill." *Natural History* 76, no. 10 (1967): 32-38.

- Muir, John. *John of the Mountains: The Unpublished Journals of John Muir*, edited by Linnie Marsh Wolfe. Boston: Houghton Mifflin Company, 1938.
- Muir, John. *The Yosemite*. New York: The Century Company, 1912. Accessed via The Sierra Club, [https://vault.sierraclub.org/john\\_muir\\_exhibit/writings/the\\_yosemite/](https://vault.sierraclub.org/john_muir_exhibit/writings/the_yosemite/).
- Nagaoka, Lisa, Rick Torben, and Steve Wolverton. "The Overkill Model and Its Impact on Environmental Research." *Ecology and Evolution* 8, no. 19 (2018): 9683-96. doi: 10.1002/ece3.4393.
- Oelschlaeger, Max. *The Idea of Wilderness: From Prehistory to the Age of Ecology*. New Haven: Yale University Press, 1991.
- Smalley, Ian, Slobodan Markovic, and Ken O'Hara-Dhand. "The INQUA Loess Commission as a Central European Enterprise." *Central European Journal of Geosciences* 2, no. 1 (2010): 3-8. doi: 10.2478/v10085-009-0046-z.
- Snyder, Gary. "To the Chinese Comrades." In *The Back Country*, 99-102. New York: New Directions, 1968.
- Snyder, Gary. Daily Journals and Manuscripts, 1945-2009. Gary Snyder Papers, Special Collections (call no. D-050), University Library. UC Davis, Davis, California, USA.
- Snyder, Gary. *Danger on Peaks*. Berkeley: Counterpoint Press, 2004.
- Snyder, Gary. *Turtle Island*. New York: New Directions, 1975.
- Snyder, Gary. *Earth House Hold: Technical Notes and Queries to Fellow Dharma Revolutionaries*. New York: New Directions, 1969.
- Snyder, Gary. "Milton by Firelight." In *Riprap and Cold Mountain Poems*, 50<sup>th</sup> Anniversary Edition, 9-10. Berkeley: Counterpoint Press, 2009.
- Snyder, Gary. *The Old Ways*. San Francisco: City Lights Books, 1977.
- Wenger, A., and J. Suri. "At the Crossroads of Diplomatic and Social History: The Nuclear Revolution, Dissent, and Détente." *Cold War History* 1, no. 3 (2001), 1-42. doi: 10.1080/713999931.
- White, Lynn, Jr. "The Historical Roots of Our Ecologic Crisis." *Science* 155, no. 3767 (1967): 1203-07. doi: 10.1126/science.155.3767.1203.