

Lessons from the Easter Island Collapse

By Richard W. Franke

This is the latest installment in our Signs of Sustainability series, organized by Sustainable Tompkins. Visit them online at www.sustainabletompkins.org.

The following is part five of a series on the history of sustainability.

Easter Island may be the most remote inhabited place on earth. Situated in the southwest Pacific Ocean 2,300 miles west of Chile and 1,300 miles east of the fairly remote Pitcairn Islands, Easter got its modern name in 1722, when Dutch sea captain Jacob Roggeveen and his crew “discovered” it on Easter morning. The local inhabitants call their island Rapa Nui.

The Dutch explorers estimated the population at 2,000 to 3,000 “miserable” inhabitants—skinny, malnourished and living without trees or any other obvious source of wood. Roggeveen described the

island as giving “no other impression than of a singular poverty and barrenness.” Fifty years later, Captain James Cook found many of the islanders living in caves and described their tiny canoes as the worst in the Pacific.

And yet, the Dutch and later visitors were astonished at Easter Island’s 887 massive carved rock statues, or moai, half of them dispersed across the island and fixed on ahu, or stone slabs, with the faces pointed inward from the ocean. The average erect statue is 13 feet tall and weighs about 10 tons. How had these “miserable, hungry” people carved, transported and installed such impressive monuments?

Decades of careful archaeological and historical research, including the recording of the oral histories of the islanders themselves, reveal that Easter Island once had up to 6,000 people, with an elaborate, aristocratically-run social

structure and a religious cult (or cults) that drove the passion to set up the statues. Excavation of bogs and parts of volcanic craters indicate that between 900 and 1400 A.D. the population ate large amounts of birds and dolphins; the latter could only be fished by much larger boats than they had in 1722.

Perhaps most importantly: at the height of the statue-carving, Easter Island was covered by a “subtropical forest of tall trees and woody shrubs,” including at least 21 different species. There were forests of the Chilean wine palm, which grows up to 65 feet tall and three feet in diameter. The wood from these trees would have made it possible to build large seafaring canoes from which dolphins could be caught—and log rollers and ropes with which to transport and set up the statues.

Pollen core analysis now also shows (although some disputes remain in the literature) that the island’s forest cover rapidly declined, perhaps around 1300 to 1600 A.D. Author Jared Diamond, in his 2005 book “Collapse: How Societies Choose to Fail or Succeed,” identifies two main causes of this striking fall from abun-

dance to decay.

First, the seeds of the wine palm and other tree species are a favorite food of rats, which ate them in large numbers, reducing the trees’ ability to reproduce. (Some observers consider the rats a sufficient explanation of Easter’s forest decline.) Second, the aristocratic structure of the society led to a constant demand for wood to transport statues to support the religious practices that kept the elite viable even as the trees declined in number.

Eventually, massive soil erosion began to occur in response to tree-cover loss and the food supply dwindled, setting off rebellions by the commoners and interclan wars that the inhabitants describe in their oral histories.

Diamond calls Easter Island “the closest approximation that we have to an ecological disaster unfolding in complete isolation,” and notes that “the parallels between Easter Island and the whole modern world are chillingly obvious.”

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