

Wasted Space: A History of Discard in Orbit

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Outer space has been popularly understood as the antithesis of nature—a dark, cold, airless void in which life as defined in familiar, terrestrial terms cannot exist. The first photographs of Earth from space became environmentalist icons not simply because they offered an unprecedented view of the planet as a whole, interconnected, finite unit, but also because Earth appears isolated, lonesome even, against the infinite, barren background of empty space.¹ Perhaps it is this abiotic, oppositional, external quality of space—as well as its amorphousness, immateriality, and infinitude—that have limited historical curiosity about space as a natural environment with an informative past.

But an absence of recognizable biological life does not exclude space from the realm of the natural, nor negate its profound role in terrestrial affairs over the last half century. A global—and planetary—view of environmental history should also include Earth’s cosmic neighborhood within an expanded natural world. During the Landhaus Fellowship at the RCC, I will work on the manuscript for a book tentatively titled *Wasted Space: A History of Discard in Orbit*. This book will take up the longstanding charge by environmental historians to honor the diverse, pragmatic, categorically messy ways that humans and more-than-human biological and geophysical natures interact and mutually shape one another over time. Even as a small cross-section of spacefaring humanity has cultivated a planetary wilderness with satellites and their associated detritus, the naturally occurring physical forces and material properties of orbital space have also played a pivotal role in dictating the shape of space technologies, geopolitical conflict, and international debates about the moral authority of scientists and states in the face of global environmental risk.

This book will trace the political, cultural, and material dimensions of the high technology refuse colloquially known as “space junk.” From flecks of paint to dead satellites, falling around the planet or falling to Earth, wide-ranging engagement with these byproducts of the space industry illustrate the myriad ways that the near-Earth space environment has influenced techno-scientific practice, and vice versa. The history of anthropogenic activity in space reveals the extraplanetary scope of industrial waste practices and designed disposability, as well as the rise of an international understanding of Earth orbit as a threatened—and threatening—natural environment.

Wasted Space will offer a novel view of outer space as a natural environment with a history. A vanguard of environmental historians has called attention to extreme, remote, or illegible environments as rich sites of human politics and practices. Historians of technology have examined the construction of the satellite infrastructure, but not how the byproducts of this infrastructure interacted with the orbital ecosystem to inflect Cold War geopolitics. Bridging these fields, my envirotech methods will reveal that the Space Age became truly global not through innovation alone, but also through the decay of a hybrid natural and technological system. The book will also contribute to a growing movement to destabilize entrenched representations of the Cold War Space Race as a binary fight between the United States and the Soviet Union.² In its place, a global and transnational history emerges, linking spacefaring and non-spacefaring communities through the movement of technology, expertise, labor, and waste.

¹ Neil Maher argues that images of whole Earth from space did not inspire calls to protect a fragile environment during the 1960s and 70s but rather became symbolic of the need for global unity. Both interpretations hinge on the visual and rhetorical force of seeing outer space as alien, external other to the terrestrial globe. Neil M. Maher, *Apollo in the Age of Aquarius* (Harvard University Press, 2017), 124–36.

² Asif A. Siddiqi, “Another Space: Global Science and the Cosmic Detritus of the Cold War,” in *Space Race Archaeologies: Photographs, Biographies, and Design*, ed. Pedro Ignacio Alonso (DOM Publishers, 2016).