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Author: Dr. Kathryn Denning
York University, Toronto, Ontario, Canada, kdenning@yorku.ca

TEN THOUSAND REVOLUTIONS: CONJECTURES ABOUT CIVILIZATIONS

Abstract

Ten thousand years ago, no-one on Earth was living a ‘civilized’ life. What has happened since is remarkable and impossible to fully comprehend; yet, everyone has ideas about civilization, and how the world came to be as it is. Such understandings of civilizations on Earth inevitably influence speculation about possible civilizations elsewhere, in two ways. Sometimes, a specific Earth civilization or historical experience is explicitly used as a basis for inferences about extraterrestrial civilizations. On other occasions, more general assumptions about the development and functioning of Earth’s societies shape conjectures about alien societies. This paper will focus on the latter, general assumptions, with the aim of considering how we can use our knowledge of Earth’s civilizations to our best advantage in SETI.

How do civilizations work? How do they change? Why do they emerge, develop, and decline? How, and under what conditions, does technology increase in complexity? Why do some civilizations, but not others, explore and conquer? And, just as importantly, how do researchers who study civilizations frame and understand these phenomena? For example, do we assume that civilizations function rationally? Do we assume that historical change is predictable? Do we assume that there are laws of history? And how have our assumptions about civilizations changed in recent decades?

This paper will examine ideas within the SETI literature concerning alien civilizations, and consider their connection to theoretical models of social evolutionary change within anthropology. Particular attention will be given to concepts of diffusion, convergence, contingency, determinism, and progress.