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FROM CONTAMINATION TO STERILIZATION TO QUARANTINE TO PROTECTION: THE SIGNIFICANCE OF TERMINOLOGY ON AN INTERPLANETARY SCALE

Abstract

Concern about preventing the biological and organic contamination of other planetary bodies while also protecting the biosphere from the consequences of finding and returning extraterrestrial life to Earth began well before the 1940s[1] and developed into a systematic area of inquiry coinciding with the beginning of the space age in the 1950s

Within their first decades, those concepts were initially labeled "contamination" [2] or "sterilization" [3]. "Planetary quarantine" [4], a name that suggested a unified approach, eventually gained a foothold [2], but unfortunately came with latent baggage of its own [5]. Over time, however, that terminology was replaced - quietly, organically, and without fanfare - by the more prosaic "planetary protection", and this has become the accepted common parlance to describe the science and practice of biological and organic contamination avoidance within the space flight community.

The presenters will provide a somewhat lighthearted look at the history, timeline, process, and reasoning behind this terminology evolution and its widespread adoption by space agencies and other organizations. (This paper does not duplicate material found in the "official" NASA history of planetary protection[6] or planetary quarantine[7], which covered this specific subject only broadly.)

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