

Review of: "A Case for Nature in Long-Haul Space Exploration"

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The paper makes valid points regarding the positive impact of nature on human wellbeing and suggests that future space missions include 'biophilic' designs. The overall premise is laudable, but the paper fails to define nature and to what extent simulated nature provides tangible benefits. It is unclear if viewing a (static) image of spectacular views has the same benefits as a walk in the park, what nature means to different people and to what extent immersive technology can provide nature-like experiences. A distinction between transient stimulation by images of 'nature' is different from true immersion in natural phenomena. The latter is sure to have a different feel for astronauts than for earthlings. All attempts to establish future outposts include a biological life support systems (BLSS) that not only regenerate oxygen, filter water, and reduce carbon dioxide but also include connections to so-far small patches of living systems other than humans. Astronauts credit plant cultivation in Veggie and the Advanced Plant Habitat, with beneficial experiences. The cultivation and harvest of real plants or handling experimental animals is likely to have a more profound effect than watching videos that lack the gamut of somatosensory stimulation. The paper may be a good introduction to improved wellbeing but lacks data to guide planners of biophilic systems.