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Editorial

# Terraforming of Mars Environment

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## ABSTRACT

Mars also features a history of being wet and plush. It has been theorized that when it had been first formed 4.2 billion years ago it had an environment and high amounts of water. Since Mars is far smaller than Earth, its internal core gradually hardened, which caused Mars to lose its magnetic flux? Without a protective magnetic flux, the solar radiation was ready to strip away most of the Martian atmosphere. The end result's that over subsequent 500 million years, Mars gradually transformed from a warm, wet planet to a chilly, dry planet. Around 3.7 billion years ago, Mars eventually became almost like the barren planet we all know of today. Despite this, there's evidence that water still exists on Mars. Water in the form of ice has been found at the poles and underground in the Utopia Plantain region of Mars. There is up to five million cubic kilometers of ice on Mars, and if this were to be spread evenly over everything of the surface of Mars it would submerge the planet under 35 meters of water.

**Keywords:** Mars, Utopia plantain region, Martian atmosphere

## INTRODUCTION

This, unfortunately, pales in comparison to the 1.36 billion cubic kilometers of water found on Earth, but it is a start. We are currently on the hunt for life on Mars, but this has not been found as of yet. Temperature control and the structural integrity of the of the habitat would now be lesser problems within the new warm, high-pressure, external atmosphere, but these benefits would have been achieved by the planetary engineering process, not as contributions to life support by the external biosphere. In fact, little of the energy fluxing through the external biosphere would be of any use for humans. Its atmospheric circulation and hydrological cycle could be exploited to get electrical power, but would be prevented from being of direct benefit to human-containing ecosystems. As Figure 6.1a suggests, little or none of the solar power embodied in external biomass production would be available either, unless settlers developed a taste for processed algal mats, as opposed to greenhouse produced foods. Excreta and other wastes might perhaps be ejected outside to be digested by the biota, avoiding costs previously incurred by chemical reprocessing, but the idea that the main use of a terra formed environment might be as a planet-wide sewage plant is not an inspiring one. Thus whilst sharing the same planet, the two living systems would be almost completely divorced from each other. Even the aesthetics of the surface would be but exciting to the average colonist, anaerobic ecosystems not being renowned for his or her visual or olfactory qualities.

If we are to urge an accurate picture of the potential wealth to be gained from the system, we must recognize the successive waves of economic energy through which our civilization is passing. It is already clear that the shrinkage of employment and investment that occurred in farming is already happening to the extractive and manufacturing sectors and can happen to the information industries and therefore the biotech/nanotech industries which will succeed them.

## MARTIAN ATMOSPHERE

Finally, we'll be left with the irreducibly labor- and capital-intensive human industries of what we'd call “charm”. There are a variety of ways to estimate how much thicker the early Martian atmosphere was. Estimates are made supported the abundance of the rare gases, theories of atmospheric evolution, and the dimensions of the fluvial channels on Mars, and easily by scaling from Earth. Not surprisingly, the various estimates do not agree on how much of each of the volatiles were, or are still, present on Mars we consider that terraforming is licit in case humanity depends on it for its survival. Even in the case there were life on Mars, and it was independent to Earth’s we could try to protect that life in bio banks or reserves. We judge that it would be legitimate as probably there would not be a developed biosphere on Mars but only a hypothetical remnant frozen biosphere.

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