

Colonizing the Galaxy in Eight Easy Steps

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The Millennial Project: Colonizing the Galaxy in Eight Easy Steps by Marshall T. Savage, 1994

- [1] AQUARIUS – Space Colony at Sea
- [2] BIFROST – 21st Century Launch System
- [3] ASGARD – Space Colony in Orbit
- [4] AVALON – Ecospheres on the Moon
- [5] ELYSIUM – Terraforming Mars
- [6] SOLARIA – Colonizing the Solar System
- [7] GALACTICA – Colonizing the Galaxy

The Millennial Project is a thousand year plan to colonize the galaxy. Yes, you read that right, no need to adjust the sanity controls on your computer.

The Millennial Project begins with the premise that mankind may very well be the only life in the universe; it is therefore our duty to see that life spreads and flourishes, that we fill the universe and make it live and breathe. As long as we are stuck on just one little clump of mud hurtling about the sun, all our eggs are in one basket. A single large meteor, nuclear war, or virulent plague might wipe us out. Even barring catastrophe, population density and longevity are increasing. Eventually we'll have to either stop breeding or find new places to put people. This book is an eight part, 1,000 year plan to solve these problems.

Marshall T. Savage's elegant and eloquently written plan begins with a simple step: establishment of a foundation to begin planning for humanity's diaspora. Since The Millennial Project was written in 1994, this actually has already begun, though it looks like it's in the early stages.

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- [1] AQUARIUS – Space Colony at Sea

The meat of the plan begins with my favorite step – colonization of the Earth's seas. Aquarius solves today's problems in an inexpensive and ecologically sound way, and serves as a testbed for our later colonization efforts.

The first and most important part of each aquarian colony is an OTEC (Ocean Thermal Energy Converter), a revolutionary form of solar power. Thanks to the

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sun, surface ocean waters are far warmer than in the depths, especially at the equator. An OTEC is a 3300 foot long pipe that sucks 40 degree (fahrenheit) water to the surface where it's 80 degrees. This temperature differential can then be used to power a steam engine. The lower the air pressure is, the lower the boiling point. At .43 PSI water boils at 80 degrees. The expansion of the water vapor turns a turbine which generates electricity. The vapor then condenses on a pipe that carries 40 degree water, which then lowers the pressure, which causes more water to boil, continuing the process.

A single OTEC will be taken by ship to a spot in equatorial waters, where the water is warm and deep and hurricanes are rare (thanks to the Co