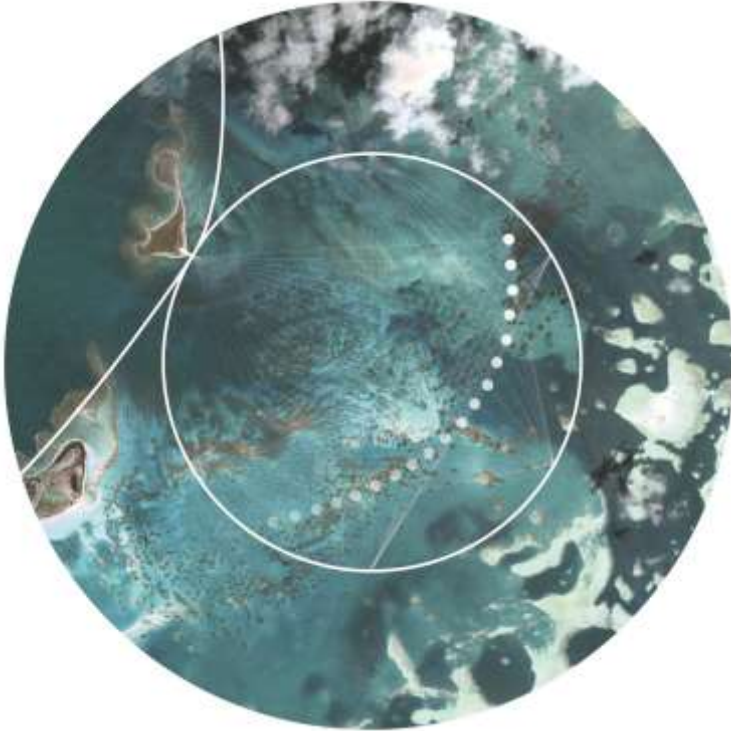


AXIS MUNDI

Fredrik Pettersson

Tutor: John Ross

Examiner: Christer Malmström



A planet is the cradle of mind, but one cannot live in a cradle forever.
— Konstantin E. Tsiolkovsky

After visiting the World Fair in 1889 in Paris, Russian astronautics engineer Konstantin Tsiolkovsky had an idea: If Eiffel could reach the sky with his tower, could a structure not then reach out into space? Instead of flying, bursting or hurling ourselves into space by force, could we simply take a lift? The idea of the space elevator was born.

125 years later, with the progress of nanotechnology, we will soon be able to manufacture carbon nanotubes strong enough for a structure to reach above the atmosphere, creating a new kind of infrastructure, one that would make travel between Earth and space efficient, cheap and safe.

Due to planetary physics, a space elevator can not be built just anywhere, but the equatorial island of Kiritimati offers near perfect conditions. This large, arid coral atoll is literally in the middle of nowhere - a vast flat surface that barely rises over the waves of the Pacific. From there - one of the most horizontal environments on the planet - a single tether rises 35 786 kilometers into the sky.

The equations are solved, the space agencies are waiting, so what about architecture?

Axis Mundi is a project about the implications of a space elevator in a context rather than as an engineering concept, connecting disparate technologies into a singular system that can engage in a symbiotic relationship with the nature and culture of Kiritimati. The passage of travelers through this system is an orchestrated experience in appreciation of the horizon, the thin line that defines our notion of open space - and as we ascend, how it wraps around itself to reveal the true shape of our cradle - Earth.