

NIRVANAM



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Project subtitle: Challenging Human Thoughts on Living with Nature

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Abstract

In our world, where urban sprawl is constant and inevitable, land usage is being reduced, further dividing nature and humanity. In response, some architects have proposed shifting urbanism towards the sea, as more than 70% of our planet is covered by water. This ideal world allows humans to expand into territories of nature, maximizing available spaces. Furthermore, it promotes harmony between humans and nature, as we once had in the past.

This critical architectural proposal presents an urbanism concept that synthesizes the dichotomy between humans and nature through the use of biorock technology. This technology serves as a bridge, enabling humans to utilize oceanic spaces while simultaneously benefiting the environment. It challenges the traditional belief that oceanic spaces are uninhabitable for humans and prevents unsustainable urban sprawl from harming the environment.

Additionally, this approach addresses and proposes an urbanism solution to the rising sea levels caused by global warming, which threaten coral reefs and marine life. The proposal aims to shift urban sprawl towards oceanic environments, demonstrating that we are capable of creating sustainable urbanism while improving marine ecosystems. It also rejects the notion that humans cannot coexist with nature and that rising sea levels inevitably limit habitable spaces.



Island Detail bioislands

Biorock can create under water structures by turning a small electric current through a metal frame in water, making minerals bond into a strong, rock-like coating. This can build seawalls, bridges, and floating platforms for aquaculture, desalination, supporting marine life, and protection from rising sea levels.

The island would consist of urbanism on top and local architecture at the base, all interconnected with water and create a harmony of urbanism with nature.

Biorocks are special underwater structures that help combat climate change by growing coral reefs. By connecting a metal mesh in the ocean and applying a small negative electric current, the metal mesh becomes coated with positive charges to attract calcium carbonate ions to generate the electric field through the negative and positive charges.

This process is similar to how corals grow from seawater, forming calcium carbonate and magnesium hydroxide—a porous, rock-like surface where corals can grow more efficiently.

Biorocks are more durable and support coral reefs, as their structures are more durable than natural reefs.

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