

# Minus 90

an architectural approach for the reduction of plastic emissions in rivers

Max von Moltke

Nachhaltiges Bauen

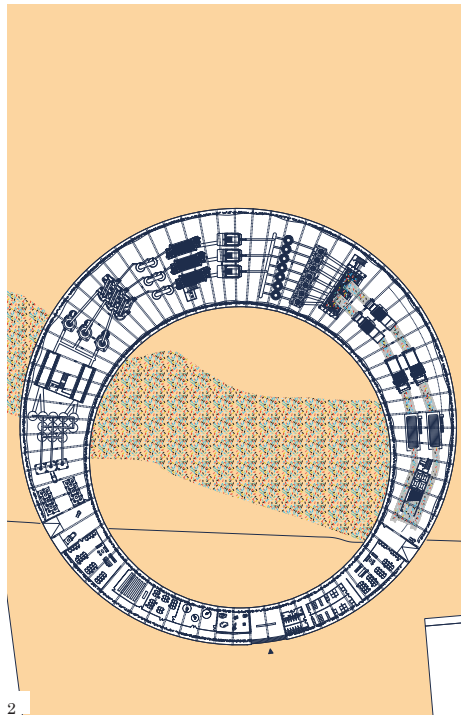
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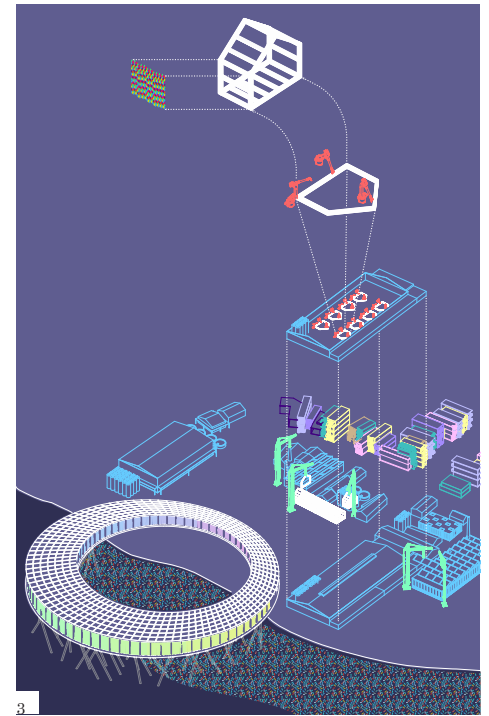
Prof. Riklef Rambow



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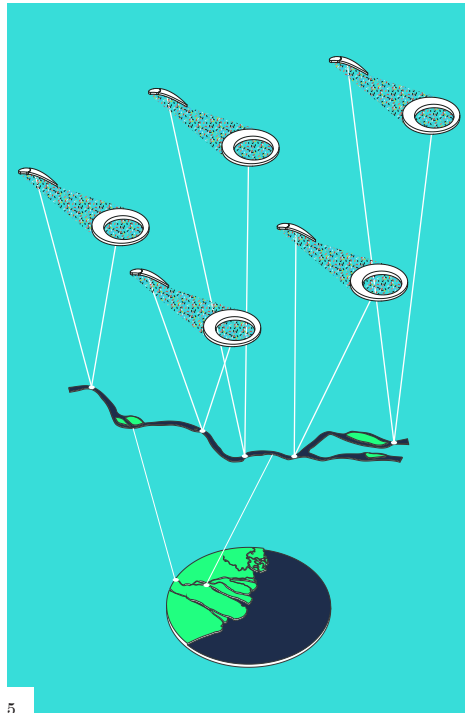
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Water is part of ourselves and not only physically an integral part of the human being. The Ocean has ever since exerted a unique fascination for us humans. In its ambivalence it makes us feel small and at the same time sublime, its noise is like music in our ears.

Today, the once-longing place has lost its charm. Natural catastrophes whose causes grow out of an equilibrated ecosystem, testify to the tremendous power and pain of the sea. Man-made monsters conquer the oceans and turn the blue oasis into a pool of dirt and death.

Around 8 million tons of waste enters our oceans annually. Much of this garbage is plastic and gets transported there by rivers.

According to estimates, almost 2.5 million tons per year, 90% of which are accounted for by only 10 rivers. It is high time that we develop ideas to counter this existential threat to our most important habitat.

Minus 90 is about such an idea: create an assembly aiming at diverting and collecting plastic waste carried by the Mekong river, recycling the collected waste and educating the public on the responsible use of plastic and its disposal.

A wing in the river, positioned vertically in the right place, allows for a diversion of the stream and targeted steering of the plastic garbage it carries towards the circular recycling facility on the bank of the river. There it is recycled and used for new building materials thus

giving the once disposed plastic a new life. The facility is deliberately conceptualized as a circular building, the circle having manifold symbolic meanings. The circle is considered to be an expression of completeness, of the whole. Circular shapes usually trigger positive associations and feelings. With its form and function, Minus 90 wants to contribute to the preservation of the earth and so preserve the circle in its perfection. Recycling is, as the name implies, a cycle, a circle. Thus, the function of the building is reflected in its form.

1) Rendering Minus 90

2) Ground plan

3) Axonometry vision

4) Wing concept

5) Extension of the project along Mekong River

6) Section through building