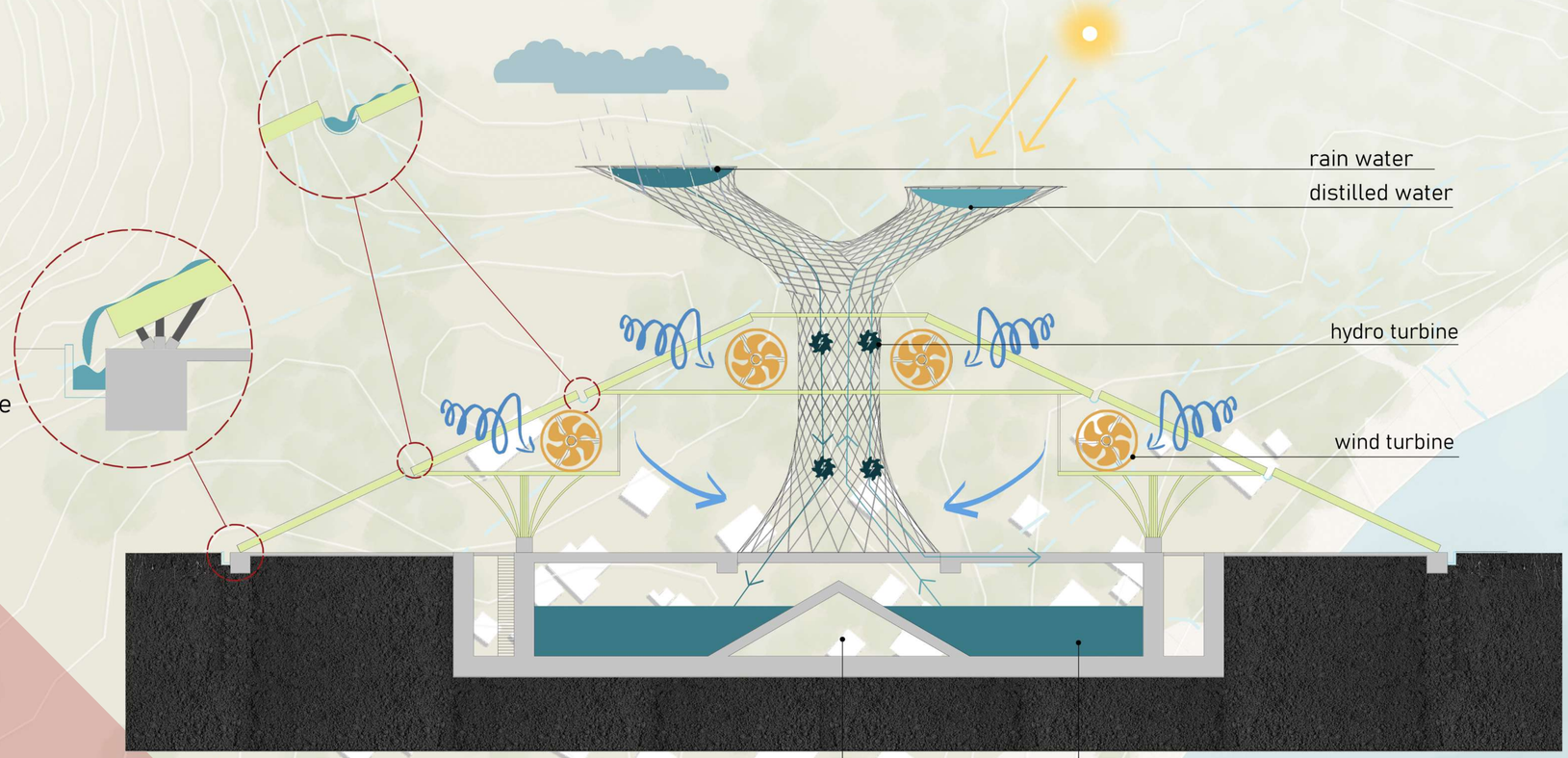
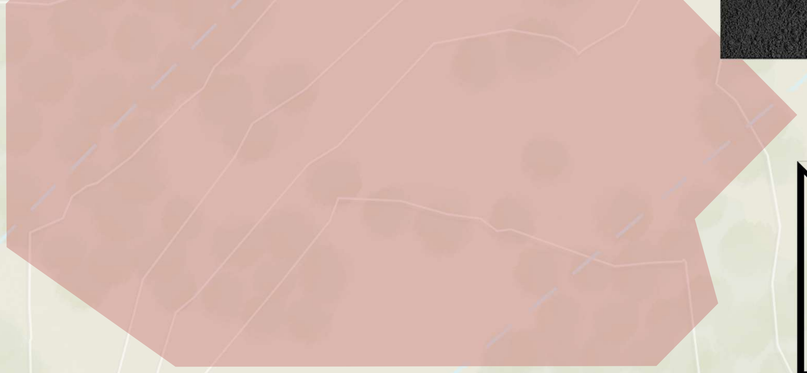
CONCEPT

VERTEBRA is a self-sustaining architectural system designed to serve the ecological needs of the village of Marou. Inspired by the form of a spine or living tree, the bamboo hyperboloid structure collects rainwater, filters it, and redistributes it to the community through a gravity-fed system.

The pyramid's façades are fully covered in solar panels, while vertical-axis wind turbines operate on the second and third floors. Inside the central structure, hydroturbines harness the flow of rainwater, stored in an underground reservoir, to generate additional energy.

The project unites water management and multi-source renewable energy generation within a single organic form — turning architecture into infrastructure and infrastructure into life.





-As it was mentioned the hole Marou includes 67 homes with approximately 270-400 inhabitants. Our project has water collecting and destirilation options that at destiribute 250 m3 filtrated clean water

Therefore collected energy can`t be saved for a long time this energy will be used for water that is regenerating underground to move to the other hand. This procedure will be done for using less energy when it will be needed to separate to the houses. The water will be gliding by itself with use of less energy..