Atrapanieblas - The Fogcatcher

Spring Studio Case Study

Project Statement

Atrapanieblas, or fogcatchers, are simple yet ingenious devices that harvest water in places where rain is almost nonexistent, such as the Atacama Desert—the driest desert in the world. Made of nothing more than locally sourced materials, they capture droplets from the dense coastal fog known as la camanchaca, which condense on the mesh and trickle down into storage. These structures provide a steady, reliable source of freshwater, offering communities not only a practical solution to extreme scarcity but also a form of water sovereignty—empowering them to secure their own resources independently of costly infrastructure relied on energy.

Critical Research

Blur Building - Elizabeth Diler / Ricardo Scofidio
Noel Ban Dooren - Drawing Time

Febuary 2025
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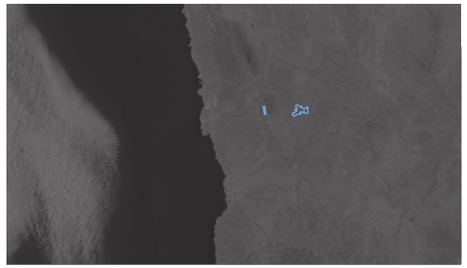
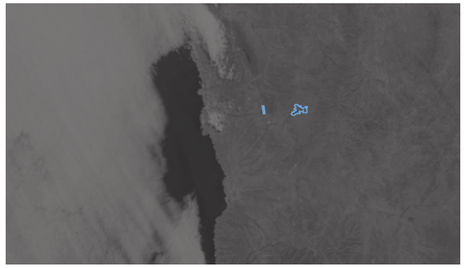
Low-Technology Water Sovereignty

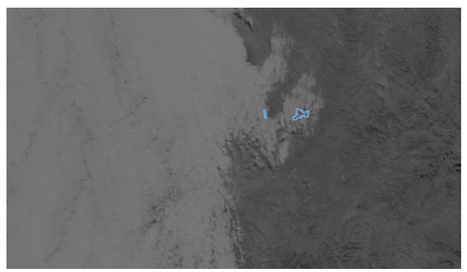
Sofia Yanjari - Atrapanieblas in the Cerro Grande Ecological Reserve in the town of Peña Blanca, in Coquimbo, Chile.

→ Atrapanieblas in Action

Capturing 20L/m^2/day of freshwater using only four materials: poles, pipes, net, and stone. The water then flows to the villages by gravity.

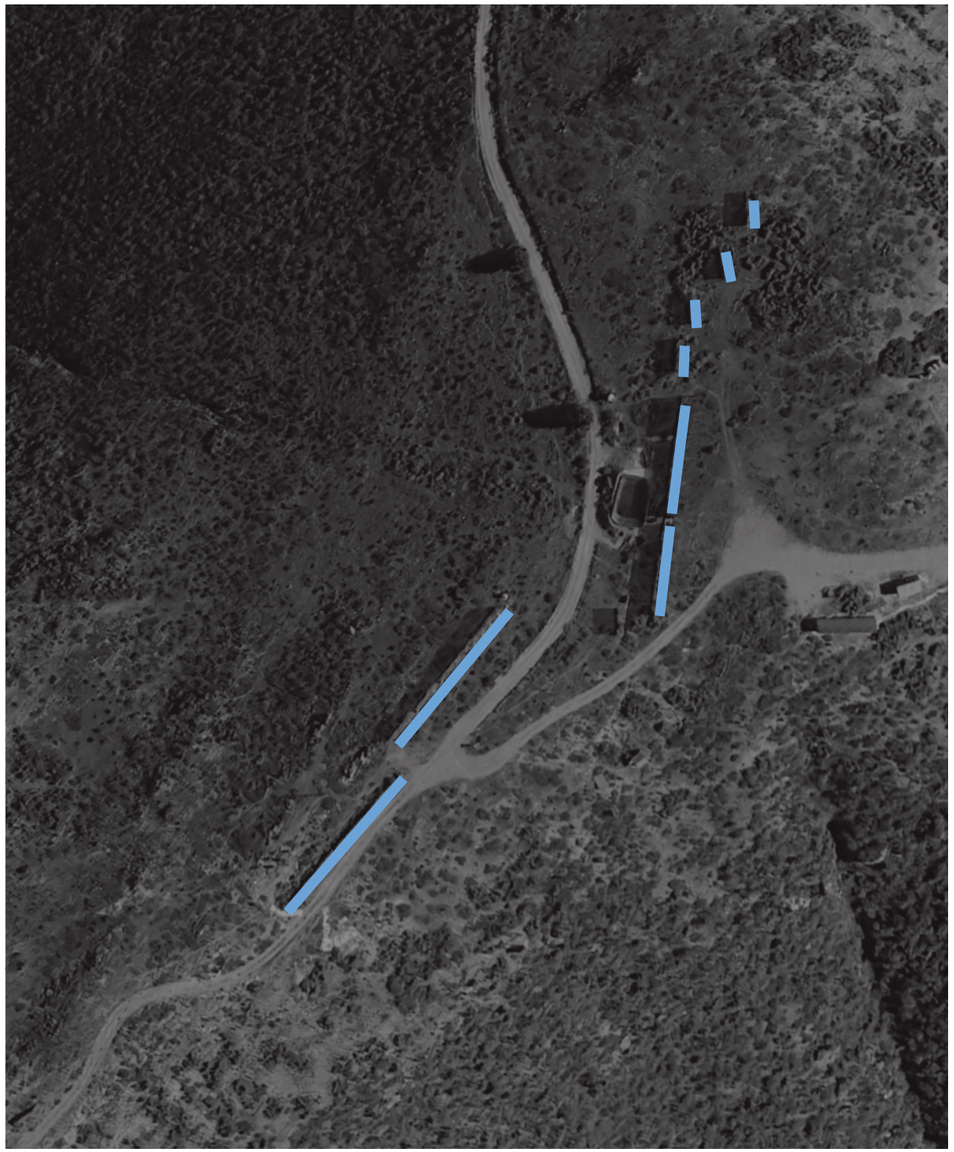






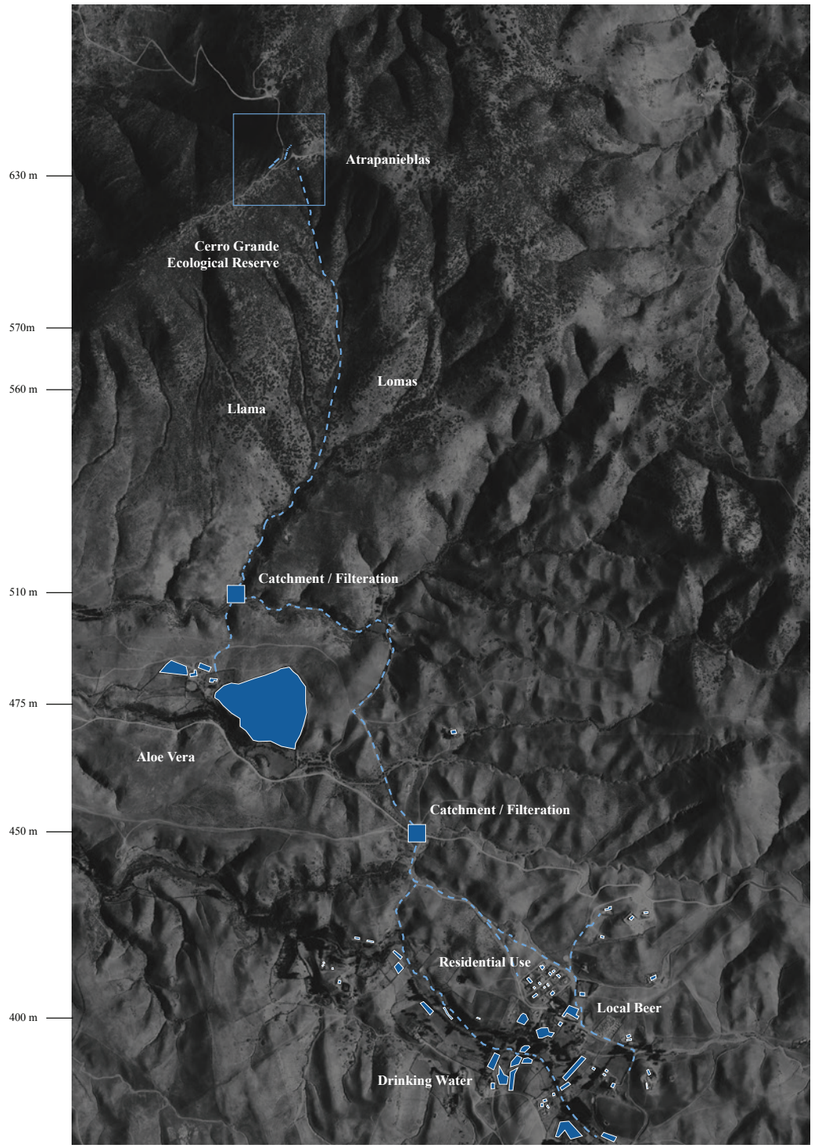
La Camanchaca - The Coastal Fog

A thick fog phenomenon; marine stratocumulus cloud banks that form on the Chilean coast, along the Earth's driest desert, the Atacama Desert.



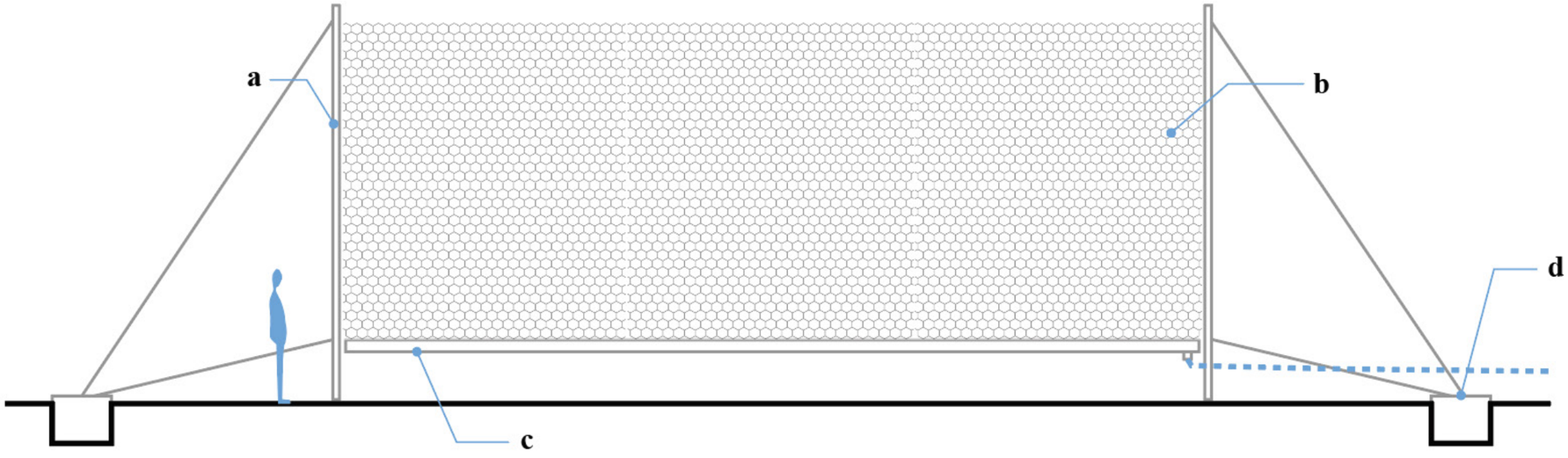
Implementation

Placed at a high elevation, it effectively harvest fog where the wind is strong, provides reliable source of freshwater.



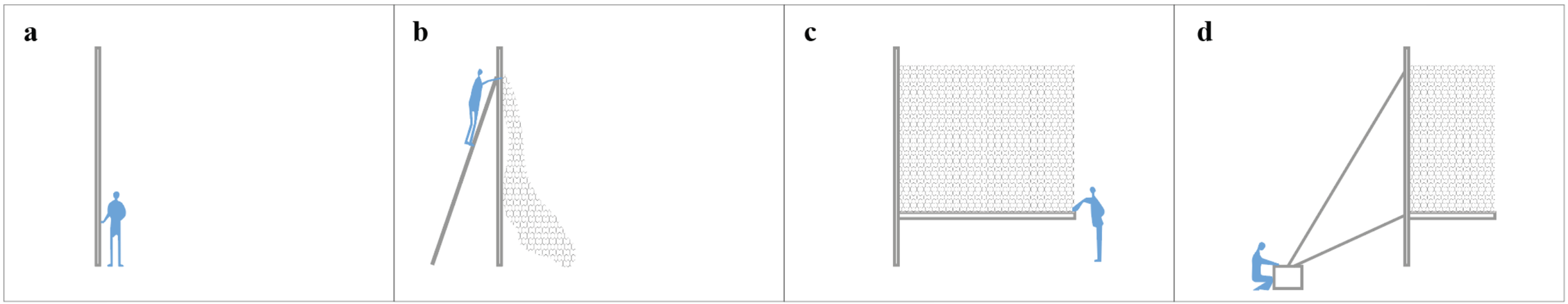
Atrapanieblas Watershed

The water flows naturally along the valley into catchment basins and is filtered towards the village, all without using any external power.



Low-Technology Using Local Materials

A net structure, held by two poles with small openings, harvests water from the fog.



Pole

Stainless Steel
or
Wood
Bamboo

Mesh

Plastic Net
or
Shade Cloth

Water Collecter

Rain Gutter
or
U-Shape Pipe

Anchor

Stone Footing
+
Rope