

01. PRECIPITATION

Given the modular nature of the system, a prototype of a single column and solar canopy will be the first step in prototyping the full-scale Drua Column. After a determined time period to ensure that the system functions properly and can withhold the elements, construction of the full-scale pilot will commence. A series of well-illustrated, visual instruction drawings will be produced to allow village residents to assist in the mass production of the series of columns. Additionally, village residents will be welcome to bring forward alternative arrangements regarding the columns and canopies to adjust for changing needs of the village. Lastly, local artisans may assist in decorating the PVC fabric canopies to add more cultural relevance and intimacy to the installation.

DRUA CANOPY

SAIL OF A SACRED CANOE

Modular and repetitive assembly of each column ensures that replacement of various parts in the case of a malfunction should be a straightforward process. Cleaning out the water filtration systems may be advised on occasion to flush out any bacteria or foreign matter that has made its way past the filtration system. To account for high wind in the case of a cyclone, each solar canopy consists of a series of individual strips with small gaps in between one another, allowing for wind to pass through, preventing high pressures that may tear or dislodge the canopy. In the case of a strip coming dislodged, the component can be replaced by a village resident without disassembling the entire canopy.

01. FLEXIBLE SOLAR PV CELLS

02. PVC FABRIC CANOPY/GUTTER

03. STEEL RING

04. PLEXIGLASS SOLAR STILL LENS

05. STEEL SPACER/GUTTER

06. PLEXIGLASS TUBE

07. RUBBER SPACER

08. COPPER SOLAR STILL COLLECTION

09. STEEL FRAME

10. ULTRAVIOLET LIGHT TREATMENT

11. STAINLESS STEEL COLUMN

12. STAINLESS STEEL STORAGE TANK

DRUA HULL

FRAME OF A SACRED CANOE

The biggest effect that this installation may have on natural ecosystems is disrupting the flora and fauna that inhabit the site. Regarding animals, the light emitted from the ultraviolet light treatment may disrupt circadian rhythms or daily habits. To mitigate this impact, residents may turn off these systems or install daylight/water sensors to ensure that they are only receiving power when necessary. Additionally, some plants may be deprived of water through the rainwater harvesting systems. In order to combat this, proper irrigation measures can be taken by village residents to upkeep the ecosystems existing on the site. However, the structures were oriented on the site to avoid disrupting major existing trees and bushes.

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