

# THE HIDDEN HALF

Border-Crossers' Water-Harvesting Shelter, The Sonoran Desert

# KEY CONCEPT: ARTIFICIAL ROOT SYSTEM

## Material Use:

Scale: 1" = 1/4"

Thermochromatic Dye Coating

Memory Metal Rods

Porous Membrane

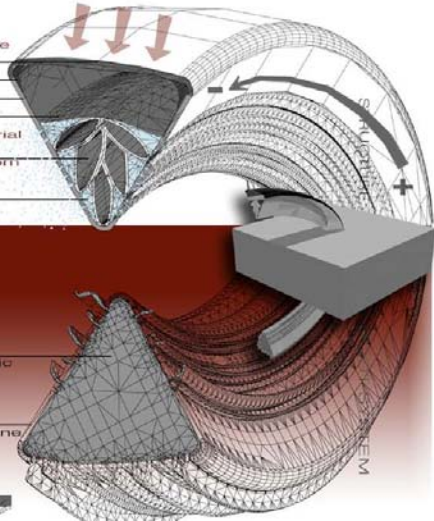
Microencapsulating Phase-Change Material

Pool Air (retrieved from the ground)

H<sub>2</sub>O (released to the air as vapor)

Bio-based Plastic (Vegemat)

Porous Membrane



## SITE SELECTION AND DEPLOYMENT PROCESS

The Bajadas are south-facing gentle slopes, which account for porous soil compositions, ideal for low depth water excavation.

Structures are meant to be deployed by local humanitarian organizations.

In accordance with average dehydration distances in arid environments, shelters should be erected approximately within 20 miles of one another.

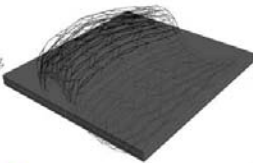


**1** Carried around in backpacks, the detailed tubes are connected by 3-way components.

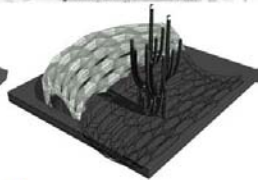


**2** Tubes are connected to create a structural mesh...

**3** which is then formed...



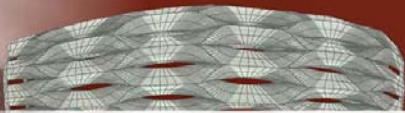
**4** to allow an above ground shelter and an underground "root" surface.



**5** The skeletal structure is covered by a pressure-sensitive quilt.

Since 1994, more than 2,200 migrants have died of heat stroke, dehydration or freezing temperatures while trying to cross the Sonoran Desert.





## BODY ORIENTED DESIGN

The structure consists of individual human size capsules clustered to form an outer skin.

