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## DOUBLE ROOFED HOMES COLLECT RAINWATER, COOL INTERIORS



**Iranian BMDesign Studio introduced the Concave Roof, a domed roofing system that collects and stores rainwater to help cool homes in arid countries.**

Designed specifically for arid climates, Iranian [BMDesign Studio](#)'s Concave Roof system consists of two domes balanced on top of each other. The dome on top acts as a bowl for any precipitation. Countries with such high temperatures must also deal with exceptionally rapid rates of evaporation, making speed in collecting precipitation essential.

Even the smallest amount of rain runs down the inside of the bowl and is centrally collected before being funneled into reservoirs located within the walls of the buildings. The water then acts as a coolant for the home, as does the double roofing system, which provides additional shade and takes advantage of any wind. The Studio envisions further iterations of the self-cooling home to include semi-submerged buildings.

Innovators around the world are finding new methods for making living in extreme climates more comfortable and efficient. New [solar panels](#) can now also provide clean drinking water, and DIY [air conditioning units](#) cool tin homes in Bangladesh by up to five degrees Celsius. How could cooling designs be adapted for use in countries with different building materials?

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