David Thorpe – How To Save Millions On Air Conditioning By Designing Passively Cooled Buildings

sustainablecitiescollective.com. December 2014. Air conditioning is by far the greatest consumer of electricity in buildings in hot countries, but it needn't be so.

Back in the warm days of August (at least in my part of the world) I wrote about how buildings in sunbelt countries could save millions by using active solar cooling. But architects designing buildings for regions that otherwise would require air conditioning can also use passive solar techniques to keep them cool, and in many cases successfully eliminate the need for expensive air conditioning.

A design for a mosque using passive solar and evaporative cooling.

Passive solar cooling operates in two stages:

1. Do your best to prevent the sun from reaching the building or gaining the interior of the building during the periods when it is in danger of overheating.
2. Then employ passive techniques to remove unwanted hot air.

Different techniques are available depending upon the climate, i.e. whether it is dry or humid.

Read more: http://sustainablecitiescollective.com/david-thorpe