

# GREEN POINT DESIGN

*Sustainable • Architecture*

## Designing Cool Houses for Summer Heat

It is easy to tell the people who live in cool houses during the summer. They are the ones who look fresh and rested in the morning, even during heat waves. Imagine a haven from the summer heat. A place with moist plants surrounding shady verandahs and cool floors for your bare feet. Getting a good nights sleep is only one of the benefits of living in a naturally cool house.

Air temperature, sun, shade, humidity, breezes, and even our own activities all create conditions which effect our comfort.

During mid-summer, the hottest sun beats down from directly overhead. Good ceiling insulation and roof-space ventilation are among the simplest, cheapest, and most effective ways to control summer heat in both new and existing buildings.

A lot of summer sun shines from the east and the west as well. (Interestingly, comparatively little summer sun comes from due north.) The effect of sun on a window is the same whatever the season: the each square meter of sunny window is roughly equal to a 1000 watt electric heater. Just what we DON'T want on a hot day in February!

Pulling drapes closed is okay, but it is best to prevent the sun entering in the first place. If overhangs and verandahs do not provide full block-out, try deciduous trees or shrubs, pergolas, external awnings or shutters, or even solar heat stop film on the glass. Double glazing has almost no effect of blocking radiant heat from the sun - which is why it so effective for keeping a house bright and warm during winter!

Summers in Victoria are characterized by hot, dry days and cool nights. The most successful summer buildings incorporate some form of thermal mass like brick, concrete, stone or earth. They can remain at a fairly stable temperature especially if they are well ventilated during the cool nights.

Hot dry air can be cooled through evaporation. Succulent plants, sprayers, fountains, or anything which will add moisture to the air will assist with evaporative cooling. Trees on the east and west provide good summer shade.

So, what can you do while you wait for the new vines to start shading the verandah? Think hammocks, porch swings, and straw hats. Think chilled wine, iced coffee, and real lemonade. Think midday siesta, afternoon swims, picnics in the gardens. The possibilities are practically endless. Enjoy the summer!

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