

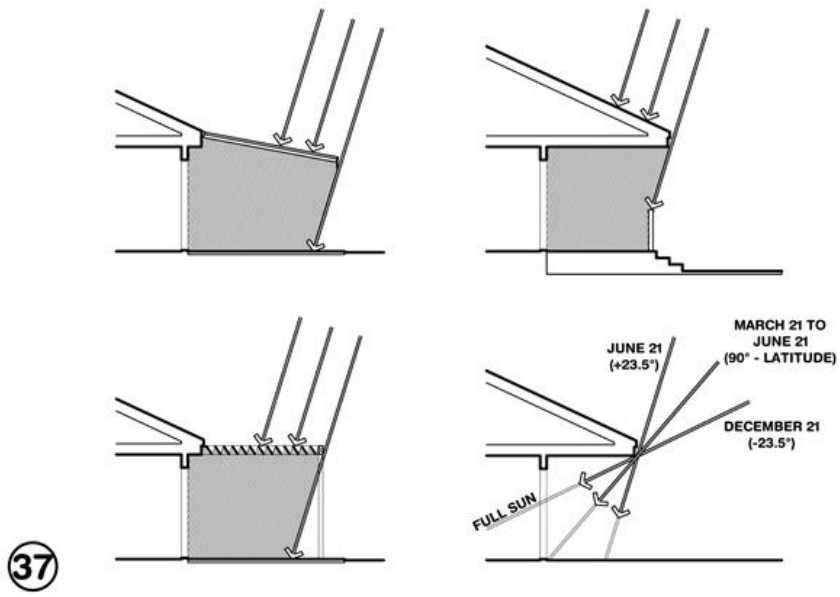
Chapter 6- References

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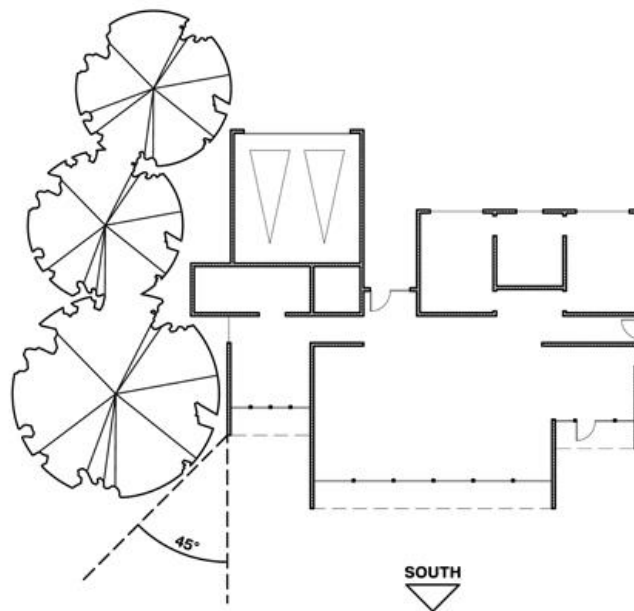


37 Window overhangs (designed for this latitude) or operable sunshades (awnings that extend in summer) can reduce or eliminate air conditioning



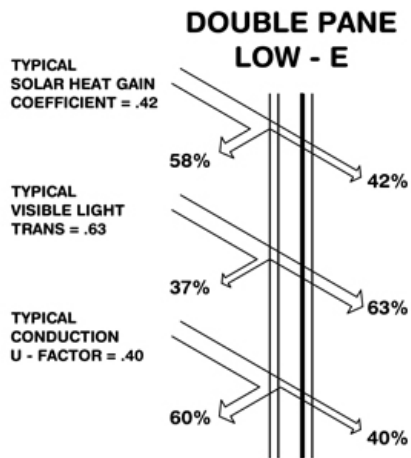
65

Traditional passive homes in warm humid climates used high ceilings and tall operable (French) windows protected by deep overhangs and verandahs



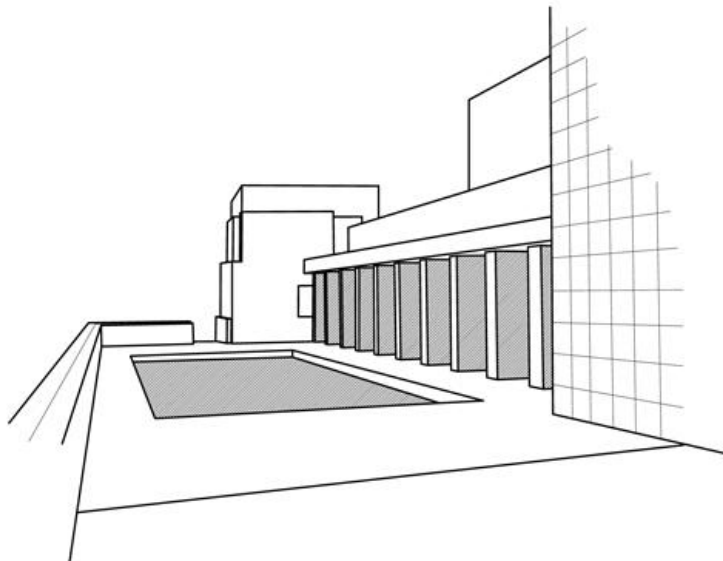
17

Use plant materials (bushes, trees, ivy-covered walls) especially on the west to minimize heat gain (if summer rains support native plant growth)



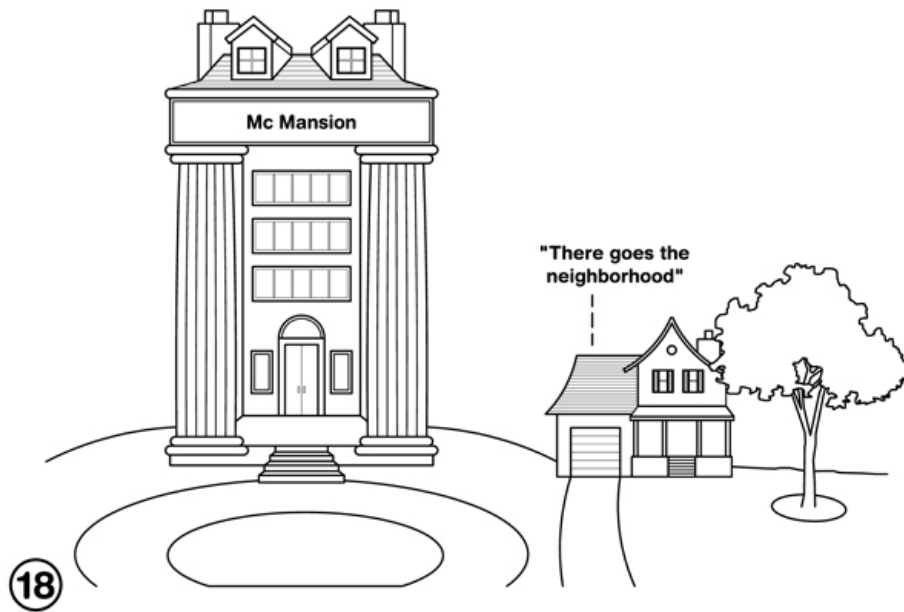
30

High performance glazing on all orientations should prove cost effective (Low-E, insulated frames) in hot clear summers or dark overcast winters

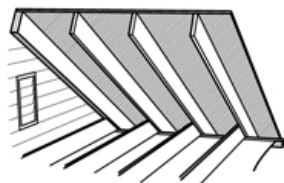


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Orient most of the glass to the north, shaded by vertical fins, in very hot climates, because there are essentially no passive solar needs



Keep the building small (right-sized) because excessive floor area wastes heating and cooling energy



ATTACHED TO UNDERSIDE OF ROOF DECK

RADIANT BARRIERS ARE SHINY FOILS WITH EMITTANCE OF .05 OR LESS WITH AT LEAST 1" CLEARANCE, ATTIC MUST BE VENTED



ATTACHED TO BOTTOM OF RAFTERS



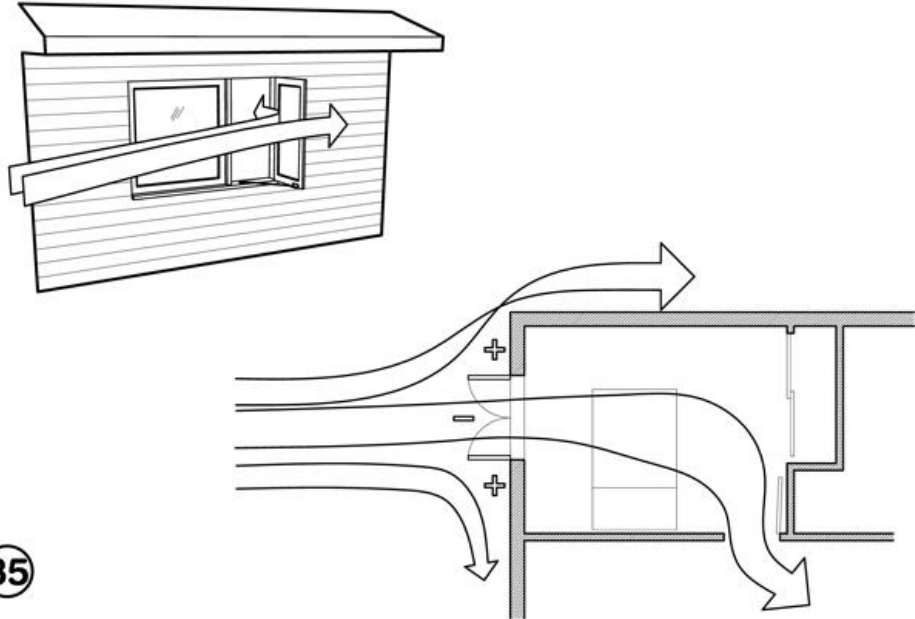
STAPLED BETWEEN TRUSSES (OFTEN MULTIPLE SHEETS)



DRAPED OVER TOP OF TRUSSES OR RAFTERS

26

A radiant barrier (shiny foil) will help reduce radiated heat gain through the roof in hot climates

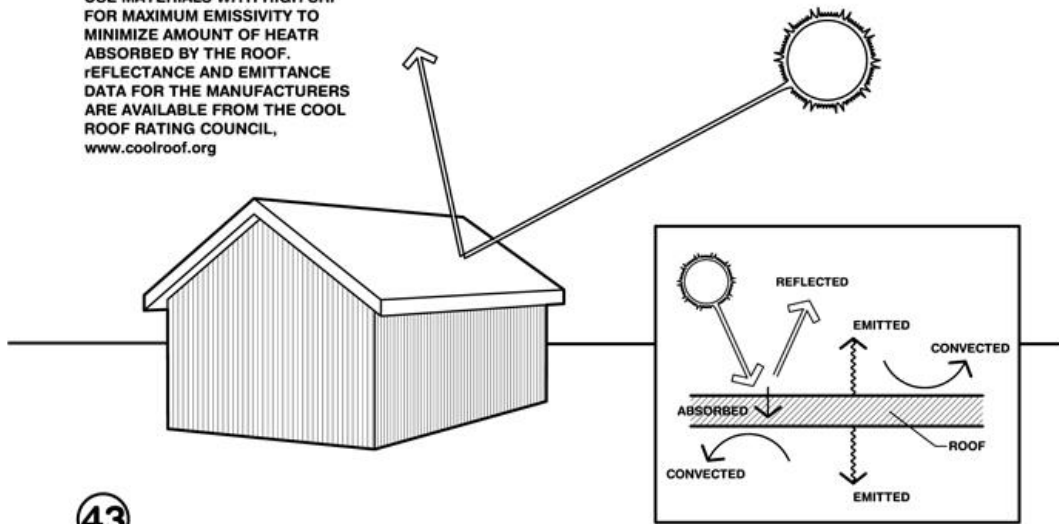


35

Good natural ventilation can reduce or eliminate air conditioning in warm weather, if windows are well shaded and oriented to prevailing breezes

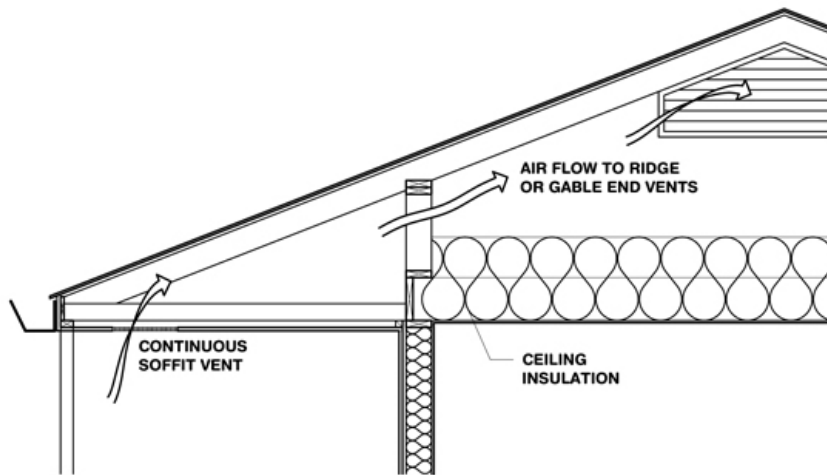
SOLAR REFLECTANCE INDEX (SRI)

USE MATERIALS WITH HIGH SRI FOR MAXIMUM EMISSIVITY TO MINIMIZE AMOUNT OF HEAT ABSORBED BY THE ROOF. REFLECTANCE AND EMISSANCE DATA FOR THE MANUFACTURERS ARE AVAILABLE FROM THE COOL ROOF RATING COUNCIL, www.coolroof.org



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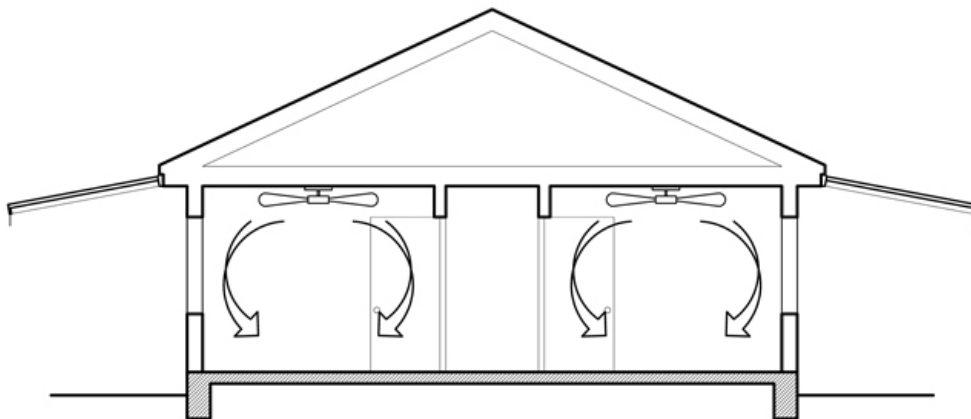
Use light colored building materials and cool roofs (with high emissivity) to minimize conducted heat gain



25

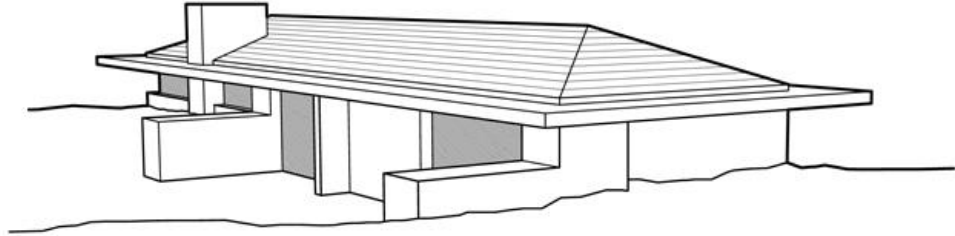
In wet climates well ventilated attics with pitched roofs work well to shed rain and can be extended to protect entries, porches, verandas, outdoor work areas

CEILING FANS CAN MAKE IT FEEL AT LEAST 5°F (2.8°C) COOLER (CAN BE USED ON HOT DAYS WITH WINDOWS CLOSED)



42

On hot days ceiling fans or indoor air motion can make it seem cooler by 5 degrees F (2.8C) or more, thus less air conditioning is needed



60

Earth sheltering, occupied basements, or earth tubes reduce heat loads in very hot dry climates because the earth stays near average annual temperature

