

Some Like It Hot?

Anybody who has tossed and turned in bed all night in the stifling summer heat will appreciate what it means to keep a house cool. We humans are very sensitive to slight variations in temperature. For some, 18°C is a chilly room temperature during the winter and for others 27°C during the summer can be unbearable and associated with sleepless nights. That's a small temperature range of only 9°C between hot and cold. Lingering in the middle is the "perfect" spring-like temperature of about 23°C. Air conditioning aside, let's see what other tricks there are to making our home a cooler and more pleasant place in the summer.

Have you, as a tourist, ever noticed how castles and churches are so pleasantly cool inside, providing instant relief from the scorching external temperatures? Thick stone walls are great at resisting the penetrating heat of the sun's rays. That's because they have what's called "thermal mass", which can absorb the heat and reduce temperature fluctuations. Come sunset, the walls cool down and recover during the night-time period. More modern or cheaper buildings have skinnier shells with lower thermal mass. Such houses will let the heat penetrate rapidly even though they may have thermal insulation. Once the heat penetrates, you are in big trouble!

A roof takes the brunt of the sun's rays head on, as it is the most exposed part of the building. In Tuscany, bedrooms are nearly always located right below the roof, so these can potentially turn into furnaces during the months of July and August. Roof tiles get so hot that they'd actually burn your hand if you touched them. The daytime heat build-up is slowly released during the night, like an electric blanket. A smart solution to overcome this problem, should roofing works be planned, is to retrofit a ventilated roof package. Essentially, this is an insulated roof with voids going from the eaves to the verge, creating a natural chimney effect to

disperse the unwanted heat buildup. If your roof has an attic below it, you might want to try stapling foil-backed rolls of aluminium to the underside. With a shoestring budget, this solution reflects the sun's radiant heat and can reduce the attic temperature by a few degrees. Some homeowners in Tuscany opt for a ground floor guest bedroom that they can retreat to when temperatures get unbearable.

Pergolas are a good solution to providing natural outdoor shade in the summer, and they allow light throughout in the winter after the leaves fall. Strategically located trees can work wonders by shading the facade of a house. All windows exposed to the sun should have some sort of external screening, such as shutters. The concept of having large windows for views is very much an Anglo-Saxon idea and doesn't work in Italy. Large windows become deadly heat traps if exposed to direct sunlight.

In an ideal world, houses should be aired early in the morning to let the fresher air circulate. This can even be achieved by leaving the windows open and capitalizing on the cool nights. Opening the highest aperture in the house (e.g. roof windows) will create a chimney effect, and beautiful air currents will naturally flow upwards once ground floor windows are left open. Sometimes it makes sense to have some ground floor windows with grills and insect nets incorporated, in order to leave them open without concerns about safety or bugs.

Cooking will make the relative humidity skyrocket and should be limited to early in the morning, or even outside, if possible. Otherwise, make sure that an extractor fan sucks the steam away immediately. Ceiling fans are the next best solution to air-conditioning. Fans won't reduce the ambient temperature per se, but will reduce the perceived temperature by a couple of degrees, providing much wanted relief ... all for the consumption cost of a light bulb. Speaking of light bulbs, these will also make their contribution to heat



buildup, so go dark or use LED bulbs wherever possible.

If excessive heat is a major concern for you, then consider purchasing a house at higher altitudes. There are plenty of villages and houses in Tuscany over 400 meters that will have cool, refreshing evenings (and no mosquitoes!). The down side may be the winter time and vulnerability to snow and ice. On the other hand, buying a house on the plains may mean contending with searing temperatures and high levels of humidity.

All of these tips will make their contribution to managing that small temperature range between hot and cold. If you're still in trouble, why not do what most Italians do ... head to the seaside!

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