Many places in the US are even approaching dangerous 'wet bulb temperatures,' especially the South.

Here are ideas of how to cool one's home without AC (a hot topic when we consider how to keep people within the climate niche, but not to add billions of AC's and their subsequent energy toll on the world):

1. **Whole-house fans or window fans**: Install a whole-house fan to draw in cool air and expel hot air through attic vents; window fan to pull out through the window.

2. Insulation: Proper insulation to reduce heat gain from outside.

3. Shade trees: Plant trees strategically to provide natural shade and reduce direct sunlight.

4. **Reflective roofing**: Use reflective materials on the roof to reflect sunlight and reduce heat absorption. <u>Women in India, for instance, have been painting slum rooftops white</u>.

5. **External shading**: Install external shading devices like awnings, pergolas, or shades to block direct sunlight.

6. **Roof gardens**: Create a green roof with vegetation to insulate and cool the building (with additional benefits of urban grey water management). <u>Amsterdam's 'Smart' Blue-Green Roofs</u> <u>Reduce Urban Flooding</u>.

7. **Natural ventilation chimneys**: Install chimneys or ventilation towers to create a stack effect for cooling air movement. Often used in architecture in the Gulf countries, i.e. <u>Natural ventilation</u> as energy efficient solution for achieving low-energy houses in Dubai

8. **Evaporative coolers ('swamp coolers')**: Use evaporative coolers which cool air through evaporation. <u>How Swamp Coolers Work.</u>

9. **Passive solar design**: Implement passive solar design principles, such as orientation and shading, to optimize natural cooling (but also works for heating in the winter, too!). <u>Passive Solar</u> <u>Homes</u>.

10. **Natural cooling ponds or fountains**: Install water features to evaporate and cool the surrounding air. (A great example of this is <u>the Baha'i temple in Delhi</u>. Even on the hottest day in Delhi (hot!) it feels cool like it has AC.

11. **Cool pavements**: Use <u>light-colored or reflective pavements</u> outside to minimize heat absorption. This also gets into the 'urban heat island' effect.

12. **Ventilated facades**: Create a <u>ventilated air gap</u> between the building envelope and facade to dissipate heat.

13. **Earth tubes:** Utilize <u>underground pipes to pre-cool or pre-heat incoming air</u> before entering the building.

14. **Thermal mass**: Incorporate materials with high thermal mass (i.e. earthen building and adobe) to absorb and release heat slowly. *make a summer Hobbit Hut office :) (so many good examples of this, for one, <u>Cal Earth</u>)

15. **Heat-blocking curtains or blinds**: Install curtains or blinds that block out sunlight and reduce heat gain.

16. **Solar shading**: Use solar shading devices like window films or screens to reduce solar heat gain.

17. Diet: Eat cooling foods to reduce heat in the body.