In arid areas of low humidity (desert/ southwest US etc) an evaporation cooler or swamp cooler can reduce the temperature of a room by 20-30 degrees. In many cases they are even more effective than traditional air conditioning. Evaporation coolers are also very low-tech and cheap and easy to build and run. In fact the DIY evaporation cooler in the tutorial below is run via solar power.

DIY evaporation coolers provide true off-the-grid cooling for arid areas. The fact most arid areas have constant sun easily allows these cooler to run via solar power. If you hook in a battery to charge in the solar system, you'll be able to run the cooler throughout the night too. A great option for RVs, trailers/caravans and cabins. Check out the DIY build tutorial below.