

SACRED GEOMETRY AND ARCHITECTURE



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COMMUNITY MANDALAS: INTERNATIONAL FRACTAL ECOVILLAS

7.6- Alternative technologies to live in a self-dependent way

With respect to the alternative technology that we can use there are many pros and cons. In our experience there are some hard data that have to be considered in order for the implementation of the system to be effective. The rope pump serves to extract water no more than six meters deep; the water pump can be very efficient if the water pressure is sufficient; The Chilean oven or rocket stoves have a combustion chamber very efficient that allows us to take advantage of the greater calorific value of firewood, we have to build it with good insulation in the walls of the whole device; for cooking we can use a parabolic solar cooker or a parabolic solar oven; the wind generators of electricity need that the wind is constant and strong to work; for the installation of photovoltaic panels it is necessary to consider the annual average of insolation as well as the cost of the batteries, they have an approximate life of 12 years and the solar panel, the battery and a power inverter are required, we can also use it to heat the water a glass tube heater.

Solar fruit dryers are very effective; to produce the necessary biogas of four people four pigs are required as well as bags for gas accumulation. The calculation of energy needs in lighting is 5 watts of consumption for each LED lamp; the incandescent lamps consume 60 watts average and those of low consumption close to 12. The refrigerator consumes 920 watts per day, being the class A the most efficient. The washing machine, without hot water or centrifuged, 120 w / day. The water pump depending on the time of use can reach up to 6000 watts a day. And in all the calculation must take into account a 15% loss on average for cables, inverter, and batteries. This calculation must be done with the lowest possible light collection scenario, which is the winter one.

For the elaboration of a project it is important to observe and list what external aspects: rainfall, depth of water table or water table, solar orientation, prevailing winds (observe wind curtain, if it is forestry, requires attention to deciduous species), origin of noise, fumigations nearby, main and secondary routes, farms, frosts, agroforestry situation, possible construction materials of the place (stone, sand, clay). We must also take into account the internal aspects of the development that is undertaken: the bases of the economy to be developed; dimensions of places; flowchart; reference of the colors and symbols used. It is strongly recommended to use tones that blend with the colors of the place avoiding the prominence of the design. In general, have an attitude of reception, non-discriminatory observation oriented to the agriculture of not doing with succession of crops and replacement in the fields of the resources that are exploited.

