

## Designing Sustainable Building Based on Iranian's Windmills

**Authors :** Negar Sartipzadeh

**Abstract :** Energy-conscious design, which coordinates with the Earth ecological systems during its life cycle, has the least negative impact on the environment with the least waste of resources. Due to the increasing in world population as well as the consumption of fossil fuels that cause the production of greenhouse gasses and environmental pollution, mankind is looking for renewable and also sustainable energies. The Iranian native construction is a clear evidence of energy-aware designing. Our predecessors were forced to rely on the natural resources and sustainable energies as well as environmental issues which have been being considered in the recent world. One of these endless energies is wind energy. Iranian traditional architecture foundations is a appropriate model in solving the environmental crisis and the contemporary energy. What will come in this paper is an effort to recognition and introduction of the unique characteristics of the Iranian architecture in the application of aerodynamic and hydraulic energies derived from the wind, which are the most common and major type of using sustainable energies in the traditional architecture of Iran. Therefore, the recent research attempts to offer a hybrid system suggestions for application in new constructions designing in a region such as Nashtifan, which has potential through reviewing windmills and how they deal with sustainable energy sources, as a model of Iranian native construction.

**Keywords :** renewable energy, sustainable building, windmill, Iranian architecture

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