

عنوان مقاله:

Resurgence of rammed earth buildings in order to achieve sustainable development

محل انتشار:

پنجمین کنفرانس بین المللی توسعه پایدار و عمران شهری (سال: 1394)

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خلاصه مقاله:

Building materials and construction technology are strongly interrelated with the pillars for sustainable development (e.g. environment, society economy, culture and politics). Earth Building, an 11,000-year-old practice of building using sustainable and earth materials, is practiced worldwide. Earth has been used to construct walls, floors, roofs, and even furniture. Today it is estimated that between 33-50% of the world"s population is housed in earth homes. Use of local materials can reduce the hauling of construction materials over long distances, thus reducing the greenhouse gas emissions associated with transporting such materials. Use of locally available soils (earth) for construction of walls has been used in many parts of the world. Owing to the thermal mass of these walls and the potential to have insulation embedded in the wall section has brought this construction material/technology at the forefront in recent years. The current research emphasis is on the types, construction methods, and architectural aspects of earth buildings and earth architecture. The current manuscript explains one of the types of earth buildings, Rammed Earth, and its properties and applications based on building materials and architectural aspects in construction

كلمات كليدى:

Earth building, Rammed earth, Sustainable development, Construction material, Technology

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