



Cultural heritage resilience and socioeconomics benefits

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Cultural Heritage sites, which are valuable, sensitive and non-renewable resources for the society, have the potential to function as guides to the sustainable regeneration of the coastal areas. This potential is increased in areas that are already tourist developed. However, cultural heritage sites suffer from economic, social and environmental problems, resulting in their degradation. These challenges create a demand for investigating the role of natural hazards risk assessment of cultural heritage in innovative ways for urban regeneration. The city of Heraklion city is such a place. It is the larger urban center of the Island of Crete, where tourism is the pillar of the local economy, mainly due to the Knossos archaeological site, which is located in the limit of the urban area. However the city hosts many other monuments especially near the coastal zone. In this work, the relation between coastal Venetian walls and the Venetian fortress of Koules in Heraklion and the potential for sustainable regeneration of the coastal urban area is examined.

The methodology follows a multidisciplinary approach that is implemented through the estimation of risk estimations and the interaction between current state and future actions that are evaluated under a Structured Decision-Making. The analysis is implemented by a series of models that relate all variables, independent from their type (e.g. spatial or non-spatial). In the case of the coastal area of Heraklion the main environmental threats that were identified are the wave impact that result to degradation of the monuments. Moreover, anthropogenic interventions on the walls provide benefits for tourism development but also increase the pressures. Addressing urban regeneration requires that, decision-makers have to understand and assess the inevitable trade-offs and/or synergies that arise between competing goals (conservation versus development). Specific regulations for a protected cultural heritage site can also lead to economic impacts on a local level (jobs and income creation or loss). The suggested framework for addressing the trade-offs and promote synergies associated with alternative action decisions is assessing the risk and cost-benefit analyses. A strict approach to conservation that focuses on site preservation and limits human use may restrict the potential for positive local economic impacts. Based on the results of the study a series of actions are proposed in order to address the protection of the monuments and increase the potential of cultural heritage driven urban regeneration.

Keywords: cultural heritage; risk assessment; urban regeneration; Heraklion; Crete Island

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