

Best Practices For Monitoring, Mitigation and Preservation of Cultural Heritage Sites Affected By Geo-Hazards

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Abstract: PROTHeGO (PROTection of European Cultural HERitage from GeO-hazards) uses novel space technology to monitor surface deformation with mm precision to analyze the impact of geohazards in cultural heritage sites in Europe. The project includes the 395 monuments of UNESCO in Europe to monitor geo-hazards, with case studies conducted in 4 UNESCO sites in England, Spain, Italy and Cyprus. The PROTHeGO project uses long-term low-impact monitoring systems, such as UAVs and geodetic techniques, as well as InSAR data to monitor and assess the risk from natural hazards on the archaeological site to evaluate potential geo-hazards. This paper will present an overview of best practices for the innovative diagnosis, monitoring, mitigation and preservation of Cultural Heritage monuments sites affected by geo-hazards that are potentially unstable due to landslides, sinkholes, settlement, subsidence, active tectonics as well as structural deformation.

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