DIGITAL TOOLS FOR DOCUMENTATION AND ANALYSIS OF HERITAGE CITY CENTRES IN INDIA

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Abstract: In emerging countries, technologies are very often economically uncompetitive if transposed to cultural heritage preservation field without the right methodology and a proper use. This study would like to highlight the possibility to apply digital technologies for the documentation of historic city centres in fragile contexts such as global south countries by a deep case studies analysis of the Indian old cities of Ahmedabad and Jodhpur. The main aim of the research is to evaluate accuracy requirement and assess digital tools for heritage preservation.

Several challenges faced by this research are related to the development of documentation methods and tools for data collection and processing aimed at supporting Indian policy development. By means of affordable use of digital technologies, the research stresses the relevance of sustainable economy development linked to cultural heritage.

Solutions - Methods / Results - Findings

The research is settled on a wide range of digital documentation tools, examining procedures of identification of heritage elements to be preserved and enhanced. In order to reach this goal, the applied methodologies were focused on the identification of an interpretation method of the urban fabric based on the integration of investigations on both intangible and tangible features. The methodology led to affordable and feasible methods for all the actors involved in the preservation actions (NGOs and Trusts) and based on social and physical analysis.

Novelty - Value / Relevance to 

The applied methodologies have been particularly relevant and novel in the Indian context thanks to the integration of several technologies such as Photogrammetry, Laser Scanner Surveys, 3D reconstructions, 360 degrees photos, virtual tour applications. The result consists in a low cost and feasible methodology of documentation, which is historically and morphologically consistent, that allow assessing the average variation - within different time frames - of heritage features according to a set of selected indicators. Thanks to these collected data, municipalities, NGOs and Trust, would be able to identify target-areas to be enhanced and preserved in old city centres.

Keywords: Digital tools, Indian Cultural Heritage, Integrated documentation, Technology transfer

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