Heritage Value Mapping: An Automated Tool for Visual Assessment and Conservation Enhancement

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Abstract. Heritage buildings hold historical, cultural, and traditional significance, making their preservation crucial for future generations. However, when the intrinsic values of these buildings are not fully recognized, it can lead to the loss of important features and wrong retrofitting strategies. This study aims to develop a "Reading Value Map" which is a map for assessing and determining the value of heritage buildings visually checking various components linked to each value, which leads to better understanding of heritage's significance. Both qualitative and quantitative methods were employed in the study. First, an extensive literature review was conducted to outline the different values associated with heritage buildings, detailing their components and the tools used for their evaluation. This resulted in the creation of the Reading Value Map. Second, both regional and international case studies were examined to validate the applicability of the proposed Reading Value Map for heritage buildings across various locations, regardless of geographical context. The case study results confirmed that the Reading Value Map was successful in assessing the values of heritage buildings through visual evaluation alone. This approach reliably identified the presence of values when compared to outcomes from using technological tools. Finally, The Reading Value Map can be developed into an automated tool to improve accuracy, guiding architects in visualizing the extent of each value using charts.

Keywords. Cultural Heritage Conservation; Architectural Heritage; Heritage Value Assessment; Visual Evaluation; Reading Value Map; Automated Heritage Tools