

Reconstruction of historic buildings with structural glass – Exploring the case of Schaesberg Castle

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ABSTRACT

Materiality appears as one of the most controversial aspects in conservation and restoration practice and during the last centuries it has been interpreted in different ways aiming to reinstate the authentic image of our built heritage. Our ambition to consolidate the decayed historic structures often conflicts with our ambition to leave the monuments as intact as possible, respecting the principle on minimum intervention [1]. While, the use of traditional materials bears the risk of conjecture between the original and new elements, modern materials may appear imposing over the existing ones and impair their authentic image resulting in irreversible interventions. The debate between traditional and modern interventions is more evident in the case of reconstruction and rehabilitation of ruinous structures, where the preservation of the signs of destruction is often highly desirable as it invokes the historicity of such structures. Glass is proposed as a possible answer to this on-going materiality debate. Transparency enables the simultaneous perception of both the original and ruinous state of the structures, as an ambiguous gesture to articulate the fine line between the old and the new. The concept of restoring with glass explored in this paper is based on the principle of anastylosis. A reconstruction design is proposed for the consolidation of the brick masonry walls of the remaining tower of Schaesberg Castle, in Limburg, The Netherlands. The structure suffers from a great loss of material, while a temporary steel structure currently prevents the tower from collapsing and at the same time serves as observatory for visitors. The building is analysed in terms of pathology and consolidation demand, while an appropriate design using structural glass is suggested. The paper discusses the design possibilities based on the available glass products, appropriate manufacture and assembly techniques as well as the connection to the existing structure based on the principle of compatibility. Aim of the research is to explore the feasibility of restorative interventions using structural glass as consolidation material towards the reuse and valorisation of historic ruinous structures.

REFERENCES

- [1] ICOMOS. 2003. "Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage", art. 3.5, art. 3.8, Victoria Falls