

Structural Behaviour and Retrofitting of Adobe Masonry Buildings

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Chapter

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Abstract

Earth is one of the most widely used building materials in the World. Different types of adobe dwellings are made to assure protection and wellbeing of the population according to the diverse zones needs. Therefore, it is important to study the structural behaviour of the adobe masonry constructions, analysing their seismic vulnerability, which may help in preventing social, cultural and economic losses. In the present chapter, an explanation of the seismic behaviour of adobe buildings, a summary of recent research outputs from experimental tests conducted on adobe masonry components and from numerical modelling of full-scale representative adobe constructions are reported. In addition, different rehabilitation and strengthening solutions are presented and results from the testing of retrofitted adobe constructions and components are discussed.

Keywords

Adobe Masonry Seismic vulnerability Mechanical characterization
 Numerical modelling Retrofitting solutions
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