

# **THE VULNERABILITY OF BUILDINGS TO TEPHRA FALLS ASSOCIATED WITH VOLCANIC ERUPTIONS**

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The paper will review the current state of knowledge concerning building damage resulting from tephra falls associated with explosive volcanic eruptions. It will examine both theoretical studies conducted in the past, and the evidence of damage from eruptions, both descriptive and analytical.

Based on this information, the paper will present a new classification of the principal building types found in Europe's volcano-risk areas, in relation to their tephra fall vulnerability. Provisional vulnerability functions, relating damage and damage distribution to tephra load, applicable to each of the principal building types, will be proposed. Possible approaches to mitigation will be briefly discussed.