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Crack Propagation Problem in Environmental Conditions and a Method for Crack Shape Control

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The integrity of a building is affected by environmental conditions such as temperature, humidity, and ultraviolet rays, which affect its lifespan. In this presentation, I will introduce an example of crack propagation due to environmental conditions (temperature and humidity), particularly cracks in earthen walls of buildings. I will also propose a method for controlling the shape of crack propagation and tracing appropriate cracks.

Keywords: Crack propagation, earthen walls, shape control, crack tracing

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