

# Geopolymers in Ctesiphon Palast Reconstruction

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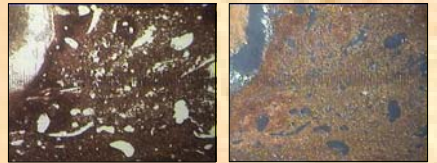


Research project on ancient building preservation through geopolymer technique

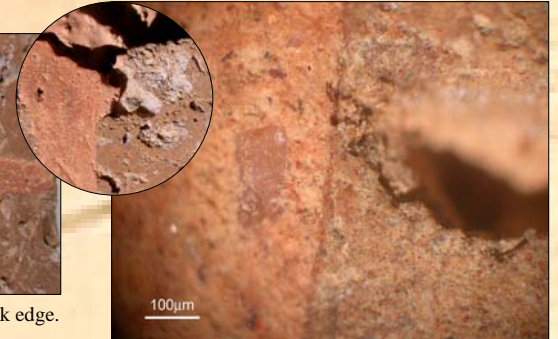


## Original Ctesiphon bricks

Extremely porous amorphous ceramics-like material that was not exposed to fire - in spite of that it is insoluble and rather hard. Microscopy shows calcite and gypsum crystalline agglomerates, verified by XRD analysis beside quartz and traces of anortite.



## Geopolymer jointing

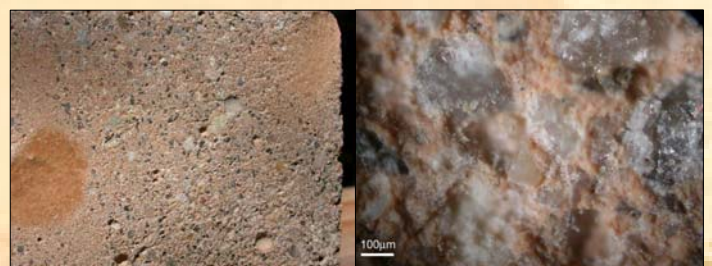


Sample of Ctesiphon brick jointed and substituted with geopolymer. Microscopy points out geopolymer-brick edge.

## Geopolymer composite material



Examples of geopolymer composites with various properties and appearance resembling Ctesiphon bricks



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