

Lime-based nanocomposites for masonry restoration: implementation of the demonstrator and size effect on their piezoresistive behavior

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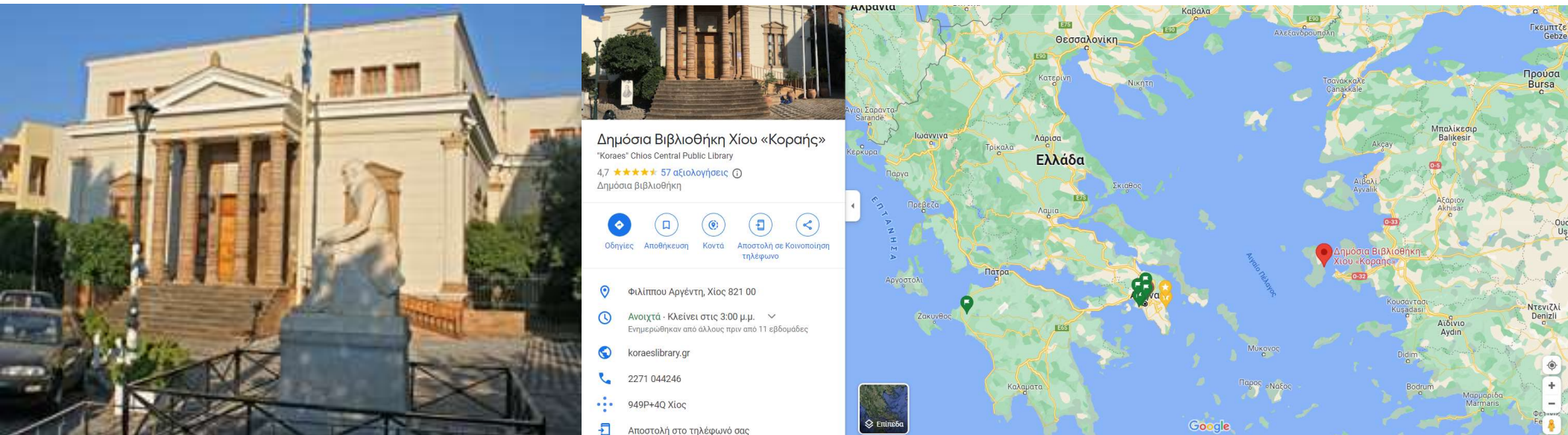


Research Target:

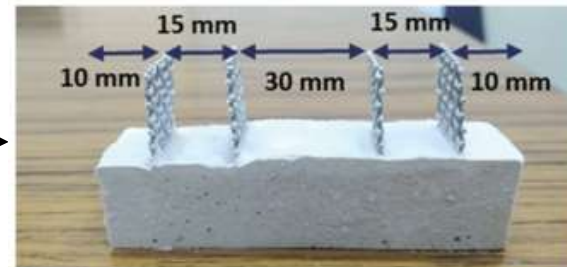
Production of a composite material with self-sensing properties for restoration application

Masonry to be restored:

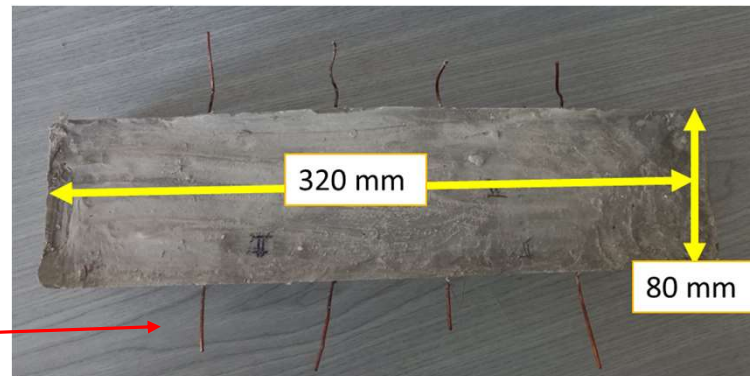
Part of masonry at Koraes Central Public Library (Chios island)



(1) Lab-scale specimens



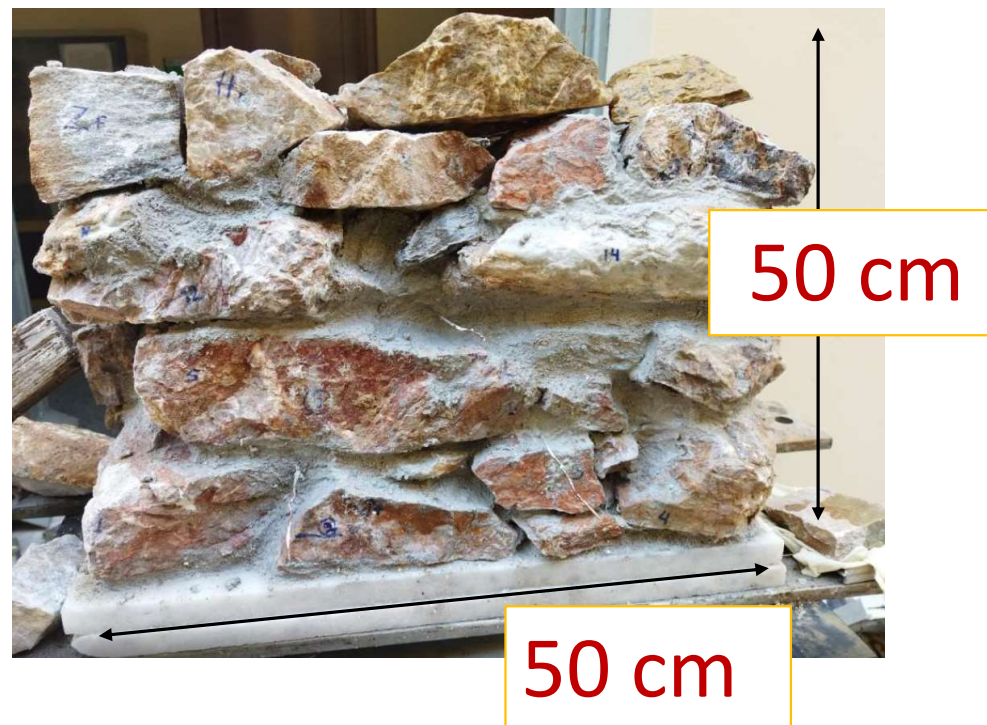
(2) Scale-up (level 1)



Sensors for
electrical resistance
measurements

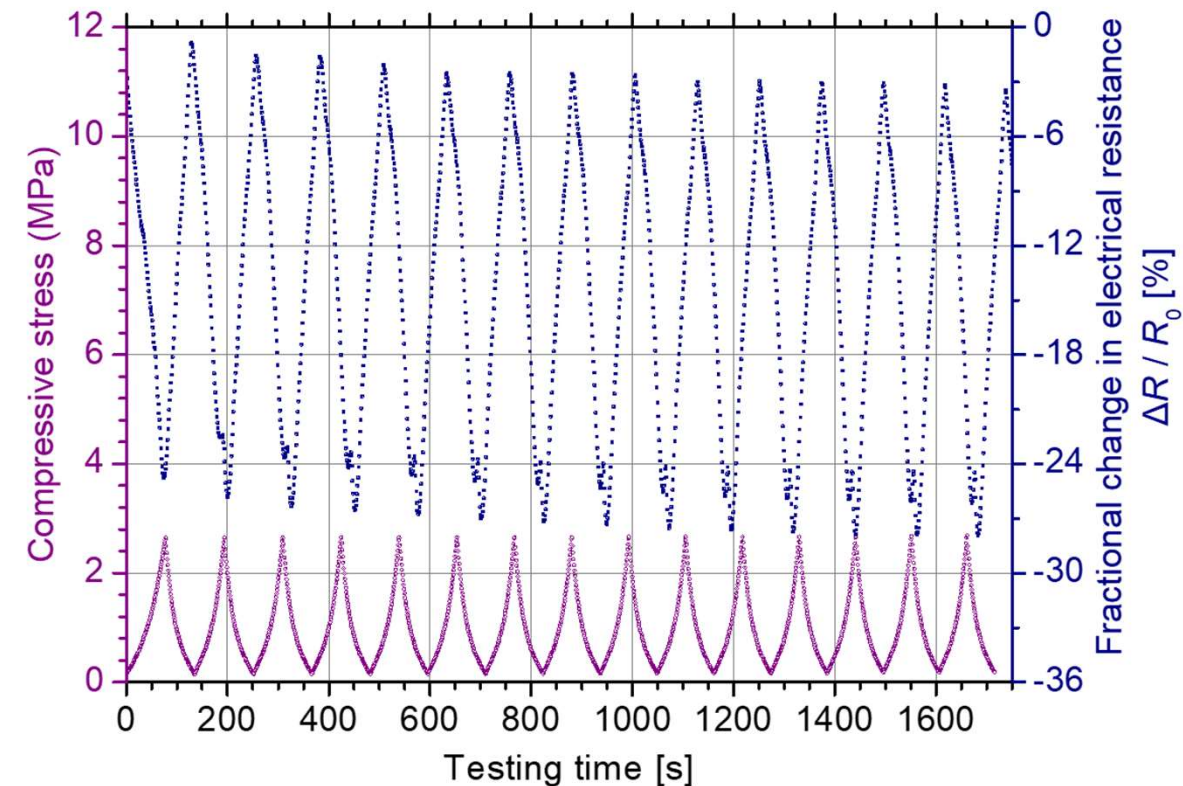


(3) Scale-up (level 2) →



**(4) Restoration of actual
masonry
(to be performed)**

The composite material possesses self-sensing properties (piezoresistivity)



- Electrical resistance changes when mechanical stresses are applied.
- Based on the fractional resistance change, damage monitoring can be facilitated.



Acknowledgments

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