



## International Course on Stone Conservation SC13

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**SESSION:** Consolidation - water and lime based including nanolime

**INSTRUCTOR:** David Odgers

**TIME:** Wednesday, 5<sup>th</sup> June/ 14:30 – 16:00 (1.5 hours)

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### SESSION OUTLINE

#### ABSTRACT

This session will look at the historical use of inorganic materials to consolidate stone and plaster. It will describe theoretical and practical advantages and limitations of the application of materials such as limewater (based on calcium hydroxide) and baryta water (Barium hydroxide) but will focus mainly on the use of nanolime. It will show the results of current research into the use of nanolime on external weathered stone and will encourage discussion as to the use and efficacy of inorganic methods.

#### OBJECTIVES

As part of a series of sessions on 'consolidants', this session will show participants the range of inorganic consolidants and how their theoretical and practical performance match up.

#### CONTENT OUTLINE


- History of inorganic materials used for stone consolidation;
- theoretical basis for their use;
- methodology of application;
- examples of use;
- assessing effect of consolidant;
- current developments;
- future use.

#### READINGS

 = Essential reading material

 = Available online

Fidler, John. 2002. *Stone : Stone building materials, construction and associated component systems : Their decay and treatment*, English Heritage research transactions. Research and case studies in architectural conservation. London: James & James.

 Hansen, Eric, Eric Doehne, John Fidler, John Larson, Bill Martin, Mauro Matteini, Carlos Rodriguez-Navarro, Eduardo Sebastián Pardo, Clifford Price, Alberto de Tagle, Jeanne Marie Teutonico, and Norman Weiss. 2003. A review of selected inorganic consolidants and protective treatments for porous calcareous materials. *Reviews in Conservation* (4): 13-25.

  Doehne, Eric, and C. A. Price. 2010. *Stone Conservation: An Overview of Current Research*. 2nd ed. Research in Conservation. Los Angeles, Calif.: Getty Conservation Institute.

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