



## International Course on Stone Conservation SC13

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**SESSION:** Issues in the Consolidation of Marble

**INSTRUCTOR:** George Wheeler

**TIME:** Tuesday, 11<sup>th</sup> June/ 16:30 – 18:00 (1.5 hours)

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### SESSION OUTLINE

#### ABSTRACT

One of the most frequently used stone materials in sculpture, monuments, and buildings is marble. This stone – formed primarily of the carbonate mineral calcite and to a lesser degree dolomite – often is subject to deterioration by acid rain (and other processes and modes of deterioration). Because of its frequent use and susceptibility to deterioration it is often subjected to consolidation with varying degrees of success, and includes a range of consolidant materials which will be discussed in detail.

#### OBJECTIVES

Students should develop an understanding of some the difficulties associated with consolidating marble with respect to the variety of materials outlined below.

#### CONTENT OUTLINE

- organic resins
- alkoxysilanes
- lime water
- nanolime solutions
- reactive water-based systems
- performance, advantages and disadvantages of each will be discussed specifically as they relate to marble consolidation.

#### READINGS

 = Essential reading material

 = Available online

 Wheeler, George. 2005. *Alkoxysilanes and the Consolidation of Stone*. Research in Conservation. 45-46. Los Angeles: Getty Conservation Institute.

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