SESSION: Control & prevention of biological growth/Methods for evaluating biocides, bioremediation

INSTRUCTOR: Ornella Salvadori

TIME: Friday, 14th June / 9:30 – 11:00 (1.5 hours)

SESSION OUTLINE

ABSTRACT
Guidelines for preventive conservation indoors and outdoors, microclimate monitoring, aerobiological monitoring and new environmental-friendly strategies (e.g. antifoulants, titanium dioxide). Control of biodeterioration: factors to be considered and evaluated before planning an intervention through mechanical methods, physical methods and chemical methods. Biocides: composition, type of action, efficacy, toxicity, risks linked to their use for the substrate and the environment and methods of application. Methods for evaluating biocides: efficacy assessment in laboratory and in situ and evaluation of biocide-substrate interactions. Bioremediation: microorganisms or bio-substances used in cleaning and biocalcification for the consolidation of stone.

Techniques for the study of biodeterioration: microorganisms identification and assessment of the induced biodeterioration.

OBJECTIVES
By the end of this session participants will:
- know preventive measures for biodeterioration;
- be able to choose the best method to control biodeterioration;
- know the essential information on biocides before using them;
- know the methods and the techniques used for the evaluation of biocides;
- know the types of bioremediation tested and applied to date;
- know techniques and methods of investigation of biodeterioration.

CONTENT OUTLINE
- Control and preventive measures for stone biodeterioration.
- The importance to know and compare the biocides.
- Examples of bioremediation.
- The aim of scientific analyses applied to biodeterioration.

READINGS

= Essential reading material
= Available online


