

Editorial

This, and the next special issue of IBB, are devoted to papers on biodeterioration of cultural property. This is the second special issue on this topic [the first was derived in part from the 8th International Biodeterioration Symposium, held in Windsor, Ontario, in August 1990, and published as Vol. 28 (1–4), 1991]. Most of the papers in this and the following special issue were presented at the Eleventh International Biodeterioration and Biodegradation Symposium, held from August 2 to 6, 1999, in Arlington, Virginia. The papers in these two special issues all had to pass the peer-review process for the journal before they could be included. Many of the speakers at the symposium's four cultural property sessions were kindly supported by the Samuel H. Kress Foundation. The organizing committee wishes to thank the foundation for its support, and dedicates these two special issues to the Samuel H. Kress Foundation.

IBBS XI had four half-day sessions on biodeterioration of cultural property. These covered parchment, leather, and fine arts; techniques of assessing damage from microorganisms; monuments and wall paintings; and archaeological material. This special issue, Part I, covers many of the papers from the first two sessions mentioned. These include papers on “foxing”, or fungal deterioration of paper. Foxing is the term used to describe spots, often brown, that over time, appear on parchment and paper. Controversy has gone on for many years in the art conservation community about the cause of this phenomenon. Some have championed the idea that foxing is the result of iron impurities in the paper or parchment, while others have pointed to a microbiological cause. The papers by Szczepanowska and Cavaliere and by Florian and Manning show the association of fungi with paper and, in particular, with foxed spots. Arai's synopsis of his 25 years of research into fungal-caused foxing follows Koch's Postulates and provides clear evidence that fungi are associated with foxed spots, can be isolated from those spots, and when re-introduced onto paper, can reproduce the

same type of effect. So it should be clear now that fungi can cause foxed spots. But whether all foxed spots are caused by fungi is another issue, as is any role that iron impurities may play.

Also in Part I, are papers related to techniques of assessing microbial damage on works of art. Included are two reviews; Jellison's on selected methods for detection of degradative fungi and Blanchette's on microbial deterioration in archaeological wood. Stone-based cultural property serves as the milieu for assessing biodiversity of photosynthetic microbes growing on or in the surface (Tomaselli), examining biological weathering and mineral deposits (Garcia-Valles and Urzi), and studying bacterial diversity on wall paintings using DGGE and 16S rDNA sequence analysis (Gutner and Rolleke).

Part II of Biodeterioration of Cultural Property 2, will consist mainly of papers devoted to the effects of microbes on stone-based cultural objects. In addition, the topic of measuring for the presence of biological activity — mainly insect but also fungal — within fine art objects using CO₂ respired by organisms will be presented.

Overall, the papers presented at IBBS XI, and those published in this special issue, give a good overview of the current “hot” topics in research related to cultural property.

In addition to acknowledging the very generous support of the Samuel H. Kress Foundation, I want to thank the session conveners, Drs. Robert Blanchette, Eric May, and Fernando Nieto, for their efforts and leadership which helped make the cultural property sessions into productive venues for the advancement of the field. I would also like to thank the guest editors, Drs. Eric May and Fernando Nieto, for taking on the bulk of the responsibility for producing this special issue.

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