

On April 15 and 16, 2010, MCI hosted an international working group on biodeterioration and biocontrol of stone surfaces. The international guests included Dr. Eric May, UK; Dr. Ornella Salvadori and Dr. Francesca Cappitelli, Italy; and Dr. Thomas Warscheid, Germany. One focus of the group was the unsightly soiling that has developed on the NMAI building since its last cleaning approximately three years ago. After examining the building and discussing relevant research experience, the group determined that the heavy and localized soiling can be attributed to the preferential water paths that develop along this unusual and elegant building. Along these water paths, because the surface of the stone remains wet for longer period, biocolonization – largely cyanobacteria (blue-green algae) – develops and air pollutants, both gaseous and particulate, settle preferentially. Therefore, to solve the problem the group recognized the need for a fundamental investigation of why water runs along those specific paths and possible architectural changes to correct this problem. The group prepared recommendation for short-term, medium-term, and long-term research programs with the goal of developing protocols for regular maintenance that minimize the need for complete cleaning of the building and extend the time between cleanings. The groups' recommendations were presented to OFEO on April 23. The working group meeting, organized by MCI Research Associate Dr. A. Elena Charola, was a follow-up to an April 20-21, 2009, conference Biocolonization of Stone: Control and Preventive Measures Workshop held at MCI. MCI's biodiversity and biodeterioration of stone team includes Director Koestler, Deputy Director DePriest, Research Scientist Vicenzi, and Senior Conservators Grissom and Wachowiak.

On April 14, 2010, Dr. Robert Koestler attended the inaugural meeting of the Scientific Counsel for Lascaux Cave, one of the greatest cultural treasures of the western world. Dr. Koestler is a member of the fourteen-member council, chaired by Professor Yves Coppens, that will provide advice and expertise to French Ministry of Culture and Communication on the scientific research necessary for the preservation of Lascaux Cave, especially to reduce the risk of biodegradation. The Paleolithic painted cave at Lascaux, France, with almost 2,000 vivid and vivacious animal paintings made from luminous iron and manganese oxide dating to 16,000 years ago, has been threatened by the rapid growth of garden-variety soil molds over the past ten years. The next council meeting is June 14-15th in Bordeaux, with a planned visit to the cave.