

## **SCIENTIFIC BOOKS AND SPECIAL EDITIONS**

### **MRS (MATERIALS RESEARCH SOCIETY)**

#### **MATERIALS ISSUES IN ART AND ARCHAEOLOGY**

1. Moropoulou, A., Bisbikou, K., "Environmental monitoring and damage assessment at the ancient Sanctuary of Demeter in Eleusis, Greece", *Materials Issues in Art and Archaeology IV*, Vol. 352, ed. J.R. Druzik, P.B. Vandiver, Publ. Materials Research Society, Pittsburgh (1995) pp. 745-757
2. Moropoulou, A., Theodoraki, A., Bisbikou, K., Michaelidis, P., "Restoration synthesis of crushed brick mortars simulating Byzantine lime and material technologies in Crete", *Materials Issues in Art and Archaeology IV*, Vol. 352, ed. J.R. Druzik, P.B. Vandiver, Publ. Materials Research Society, Pittsburgh (1995) pp. 759-769
3. Bakolas, A., Bertoncello, R., Biscontin, G., Glisenti, A., Moropoulou, A., Tondello, E., Zendri, E., "Chemico-physical interactions among the constituents of historical walls in Venice", *Materials Issues in Art and Archaeology IV*, Vol. 352, ed. J.R. Druzik, P.B. Vandiver, Publ. Materials Research Society, Pittsburgh (1995) pp. 771-777
4. Biscontin, G., Bakolas, A., Bertoncello, R., Longega, G., Moropoulou, A., Tondello, E., Zendri, E., "Investigation of the effects of the cleaning procedures applied to stone surfaces", *Materials Issues in Art and Archaeology IV*, Vol. 352, ed. J.R. Druzik, P.B. Vandiver, Publ. Materials Research Society, Pittsburgh (1995) pp. 857-864
5. Moropoulou, A., Theoulakis, P., Tsiorva, T., Kourtelis, C., Labropoulos, K., "Salt and humidity impact on porous stone masonries in marine environment", *Materials Issues in Art and Archaeology IV*, Vol. 352, ed. J.R. Druzik, P.B. Vandiver, Publ. Materials Research Society, Pittsburgh (1995) pp. 893-906
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7. Moropoulou, A., Kouli, M., Tsiorva, Th., Kourtelis, Ch., Papasotiriou, D., "Macro- and micro non destructive tests for environmental impact assessment on architectural surfaces", *Materials Issues in Art and Archaeology V*, Vol. 462, ed. P.B. Vandiver, J.R. Druzik, J.F. Merkel, J. Stewart, Publ. Materials Research Society, Pittsburgh (1997) pp. 343-349
8. Moropoulou, A., Bakolas, A., Moundoulas, P., Aggelakopoulou, E., Anagnostopoulou, S., "Design and evaluation of restoration mortars for historic masonry using traditional materials and production techniques", *Materials Issues in Art and Archaeology VI*, Vol. 712, ed. P. Vandiver, M. Goodway, J.R. Druzik, J.L. Mass, Publ. Materials Research Society, Pittsburgh (2002) pp. 77-82
9. Moropoulou, A., Delegou, E.T., Avdelidis, N.P., Kouli, M., "Assessment of cleaning conservation interventions on architectural surfaces using an intergrated methodology", *Materials Issues in Art and Archaeology VI*, Vol. 712, ed. P. Vandiver, M. Goodway, J.R. Druzik, J.L. Mass, Publ. Materials Research Society, Pittsburgh (2002), pp. 69-76
10. Moropoulou, A., Bakolas, A., Aggelakopoulou, E., Odatzidou, A., Teas, Ch., Papageorgiou, D., "Estimation of elastic constants of restoration mortars, used on historic masonries restoration interventions, via ultrasonic technique and correlation to their mechanical and microstructure parameters", *Materials Issues in Art and Archaeology VII*, Symp OO, Publ. Materials Research Society, (2004)

## NONDESTRUCTIVE METHODS FOR MATERIALS CHARACTERIZATION

11. Moropoulou, A., Avdelidis N.P., Kouli, M., Kanellopoulos, N.K., "Dual band infrared thermography as a NDT tool for the characterization of the building materials and conservation performance in historic structures", *Nondestructive Methods for Materials Characterization*, Vol. 591, ED. T. Matikas, N. Meyendorf, G. Baaklini, R. Gilmore, Publ. Materials Research Society, Pittsburgh (2000) pp. 169-174

## ELECTRICALLY BASED MICROSTRUCTURAL CHARACTERIZATION

12. Moropoulou, A., Kouloumbi, N., Marioli - Riga, Z.P., Avdelidis, N.P., Pantazopoulou, P., "Damage detectability on aluminum alloy panels under composite patching by various NDT techniques", *Electrically Based Microstructural Characterization III*, Vol. 699, ed. R.A. Gerhardt, A.P. Washabaugh, M.A. Alim, G.M.C. Pohang, Publ. Materials Research Society, Pittsburgh (2002), pp. 39-44

## MATERIALS SCIENCE AND SOCIETY

13. Moropoulou, A., Avdelidis, N.P., Aggelakopoulou, E., Kouli, M., "Non-destructive techniques for the characterization of structural materials: Materials Science & Engineering Curriculum for the education of an innovative model", *The undergraduate Curriculum in Materials Science and Engineering*, Vol. 760E, Publ. Materials Research Society, Pittsburgh (2003), Electronic Publication

## ENERGY AND THE ENVIRONMENT

14. Moropoulou, A., Koroneos Ch., Karoglou, M., Aggelakopoulou, E., Bakolas, A., Dompros A., "Life cycle analysis of mortars and its environmental impact", Life-Cycle Analysis Tools for "Green" Materials and Process Selection, Vol. 895, ed. Papasavva, St., Fthenakis, V., Publ. Materials Research Society, Warrendale (2006) pp. 235-241
15. Moropoulou, A., Palyvos, J., Karoglou, M., Panagopoulos V., "Photovoltaic Panels Performance Assessment", Life-Cycle Analysis for New Energy Conversion and Storage Systems, Vol. 1041, ed. Fthenakis, V., Dillon, A., Savage, N., Publ. Materials Research Society, Warrendale (2007) Electronic Publication

## **ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)**

16. Skoulikidis, Th., Tsakopoulos, A., Moropoulou, A., "Accelerated rebar corrosion when connected to lightning conductors and protection of rebars with needles diodes using atmospheric electricity", *American Society for Testing and Materials, Special Technical Publication*, 906 (1986) pp.15-30

## **RILEM (INTERNATIONAL UNION OF TESTING AND RESEARCH LABORATORIES FOR MATERIALS AND STRUCTURES)**

17. Moropoulou, A., Biscontin, G., Theoulakis, P., Bisbikou, K., Theodoraki, A., Chondros, N., Zendri, E., Bakolas, A., "Study of mortars in the Medieval City of Rhodes", Conservation of Stone and Other Materials, ed. M.J. Thiel, RILEM-UNESCO, Publ. E&FN SPON, Chapman & Hall, Paris, Vol. 1 (1993) pp. 394-401
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19. Moropoulou, A., Theoulakis, P., Dellas, K., Dellas, G., Tzakou, A., "Environmental management of historic complexes or cities: A new conservation strategy", Conservation of Stone and Other Materials, ed. M.J. Thiel, RILEM-UNESCO, Publ. E&FN SPON, Chapman & Hall, Paris, Vol. 2 (1993) pp. 845-852
  20. Moropoulou A., Aggelakopoulou E., Bakolas A., Tzanatos F., Psymogerakou P., "Design of concrete for restoration interventions on buildings of byzantine ERA - Evaluation of their chemical and mechanical characteristics", International Symposium: Advances in Concrete through Science and Engineering (2004) Proceedings in CD-Rom
  21. Moropoulou, A., Bakolas, A., Moundoulas, P., Aggelakopoulou, E., "Reverse engineering: A proper methodology for compatible restoration of mortars", Int. Workshop on Repair Mortars for Historic Masonries, RILEM Technical Committee, Delft University of Technology, the Netherlands (2005)
- SDEE (SOIL DYNAMICS AND EARTHQUAKE ENGINEERING)**
22. Moropoulou, A., Christaras, B., Lavas, G., Penelis, G., Zias, N., Biscontin, G., Kollias, E., Paisios, A., Theoulakis, P., Bisbikou, K., Bakolas, A., Theodoraki, A., "Weathering phenomena on the Hagia Sofia Basilica Konstantinople", Soil Dynamics and Earthquake Engineering VI, ed. A.S. Cakmak and C.A. Brebbia, Publ. Computational Mechanics Publications, Southampton Boston, Elsevier Applied Science, London NY (1993) pp. 923-942
  23. Moropoulou, A., Cakmak, A.S., Bakolas, A., Labropoulos, K., Bisbikou, K., "Properties and Technology of the crushed brick mortars of Hagia Sophia", Soil Dynamics and Earthquake Engineering VII, ed. A.S. Cakmak and C.A. Brebbia, Computational Mechanics Publications, Southampton Boston (1995) pp. 651-661
- STREMA (STRUCTURAL REPAIR AND MAINTENANCE OF HISTORICAL BUILDINGS)**
24. Moropoulou, A., Christaras, B., Lavas, G., Penelis, G., Zias, N., Biscontin, G., Kollias, E., Paisios, A., Theoulakis, P., Bisbikou, A., Bakolas, A., Theodoraki, A., "Weathering phenomena on the Hagia Sophia Basilica Konstantinople", Structural Repair and Maintenance of Historical Buildings III, ed. C.A. Brebbia, R.J.B. Frewer, Computational Mechanics Publications, Southampton Boston (1993) pp. 47-66
  25. Christaras, B., Moropoulou, A., Dimitriou, A., Diamantopoulou, M., Bisbikou, K., Theoulakis, P., "Stability and materials weathering conditions at the Symonos Petra monastery of Mount. Athos, Greece. Preliminary approach", Structural Repair and Maintenance of Historical Buildings III, ed. C.A. Brebbia, R.J.B. Frewer, Computational Mechanics Publications, Southampton Boston (1993) pp. 545-558
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  27. Moropoulou, A., Bakolas, A., Michailidis, P., Chronopoulos, M., Spanos, Ch., "Traditional technologies in Crete providing mortars with effective mechanical properties", Structural Studies of Historical Buildings IV, ed. C.A. Brebbia, and B. Leftheris, Computational Mechanics Publications, Southampton Boston, Vol. 1 (1995) pp. 151-161

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#### **WIT (WESSEX INSTITUTE OF TECHNOLOGY) PRESS**

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#### **SPIE (THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING)**

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#### **BALKEMA / TAYLOR & FRANCIS GROUP**

67. Moropoulou, A., Avdelidis, N.P., Delegou, E.T., "NDT and planning on historic buildings and complexes for the protection of cultural heritage", *Cultural Heritage Conservation and Environmental Impact Assessment by Non-Destructive Testing and Micro – Analysis*, ed. R. Van Grieken, K. Janssens, Publ. Balkema, Taylor & Francis Group, (2005) pp. 67-76

#### **PACT - EUROPEAN STUDY GROUP ON PHYSICAL, CHEMICAL, BIOLOGICAL AND MATHEMATICAL TECHNIQUES APPLIED TO ARCHAEOLOGY**

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