PRESERVATION OF COLLECTIONS

Boersma, Foekje; Brokerhof, A. W.; Tegelaers, J. and Berg, S. van den *Unravelling textiles. A handbook for the preservation of textile collections* Archetype publications, London (2007).

Bratasz, Lukasz. Response of historic materials – a key issue in making cultural heritage policy. *6th European Commission Conference on Sustaining Europe's Cultural Heritage: from Research to Policy. London, 1-3 September 2004.* (2004) http://www.ucl.ac.uk/sustainableheritage/conference-proceedings/pdf/3C.9_bratasz.pdf

Dardes, Kathleen; Rothe, Andrea (eds.). *The structural conservation of panel paintings: Proceedings of a symposium at the J. Paul Getty Museum, 24-28 April 1995* The Getty Conservation Institute, Los Angeles (1998).

Jakiela, S; Bratasz, L. and Kozlowski, R. Acoustic emission for tracing the evolution of damage in wooden objects. *Studies in Conservation* 52, 2 (2007), pp. 101-09. http://heritage.xtd.pl/aboutus/StudiesCons52(2007).pdf

The monitoring of acoustic emission (AE) has allowed direct tracing of the fracturing intensity in wooden cultural objects exposed to variations in temperature (T) and relative humidity (RH). High-frequency components produced by the mechanical fracturing were extracted from the raw AE signals using the wavelet transforms. The accumulated energy of these components depended on the magnitude and rate of the RH variations. The AE activity became negligible below the allowable magnitude for the rapid RH variation established by numerical modelling, or when the time interval allowed for the RH variation was long enough. On-site AE monitoring of a wooden altarpiece in a historic church further confirmed the usefulness of the technique in tracing climate-induced stress in wood. The development of practical AE sensors to indicate risk to wooden objects in museums and at historic sites, or during their transportation, is discussed. (http://heritage.xtd.pl/aboutus/StudiesCons52(2007).pdf)

Keene, Suzanne *Managing conservation in museums.* Butterworth-Heinemann, Oxford, Boston (2002).

Aims to demonstrate the value of professional management information to conservators and other professionals in museums and libraries. This is accomplished by reviewing the climate in which museums operate today and describing the most up-to-date management techniques. By an examination of the practice and management of conservation, the author shows how management information techniques can be applied in order to understand, monitor, and control conservation work and processes. A number of management information techniques, including performance indicators, strategic planning, decision-making and priority-setting, data analysis and presentation, risk and cost-benefit analysis, and information analysis are explained and critically reviewed. The application of

these techniques to preventive conservation, work management, and conservation planning in the context of the present museum management climate is illustrated. (AATA)

Knight, Barry. Dust in historic houses: conservation and management. *English Heritage conservation bulletin* no. 45 (2004), pp. pp. 18-20. http://www.english-heritage.org.uk/upload/pdf/cb_45_p18-20.pdf

Describes a study involving the rates and locations at which dust particles are deposited in historic houses. The author describes several methods of sampling and analyzing dust deposition, including one involving counting particles on glass slides using a video microscope and image analysis software. Tests were conducted at Audley End House, an English Heritage property, and Knole, Osterley Park, and Hampton Court Palace of the National Trust. Results link dust deposition directly to visitors and identify the levels at which dust settles most abundantly. These results are examined for Audley End House in some detail, and mitigating measures are described. Visitor perceptions of dust are also examined, since removing dust more often than necessary can be destructive, particularly to textiles. The author determines that conservation and curatorial staff are more aware of and concerned about dust than is the visiting public. The apparent cementation of dust on glass and ceramic surfaces when it is allowed to remain for long periods of time is due to organic particles of hygroscopic salts or sugars, the sugar particles being possibly of fungal origin. The findings are discussed in regard to management decisions and housekeeping practices. (AATA)

Lithgow, Katy; Lloyd, Helen; Brimblecombe, Peter; Yoon, Y. H. and Thickett, David. Managing dust in historic houses: a visitor/conservator interface. *14th triennial meeting, The Hague, 12-16 September 2005: preprints (ICOM Committee for Conservation).* Verger, Isabelle, James & James (Science Publishers) Ltd., London (2005), pp. 662-669.

Reports on the outcomes of a project examining the role of dust in irreversible soiling and to find ways to minimize this risk. The work explores not only conservation concern for the interaction of dust with historic surfaces and their presentation to visitors, but also visitor attitudes to dust and their response to historic interiors. The work takes account of the need to provide access as well as long-term preservation and provides an assessment of the costs and benefits of an effective dust management strategy that is designed to prolong objects' existence and enhance visitors' experience. (A.A.)

Michalski, Stefan. A systematic approach to preservation: description and integration with other museum activities. In *Preventive conservation: Practice, theory and research: Preprints of the contributions to the Ottawa Congress, 12-16 September 1994.* International Institute for Conservation of Historic and Artistic Works, (1994), pp. 8-11.

A framework that integrates the control of all agents of deterioration is presented. The framework uses a single structure and universal terminology for all preservation activities in a museum. One product of this approach has been a wall chart of expert advice, refined over a five-year period. This wall chart has been transferred to a computer spreadsheet for survey purposes. A model of collection damage rate is outlined, along with scales for estimating the component variables. Points of intersection with other museum activities--study and communication--are discussed. Teaching experience with the approach, and future application to computer-based management support systems, are discussed briefly. (AATA)

Staniforth, Sarah. Preventive conservation in National Trust houses. In *International symposium on the conservation and restoration of cultural property: Cultural property and its environment: October 11-October 13, 1990.* Bunka-cho Tokyo Kokuritsu Bunkazai Kenkyujo Hozon Kagakubu, Tokyo (1995), pp. 145-166.

Describes methods used for the monitoring and control of light, temperature, and relative humidity in the historic houses owned by the National Trust. The author discusses the problems of trying to achieve museum conservation standards when the houses are displayed as if they are still occupied by the families that formerly owned them. The article describes housekeeping, which is the National Trust's term for the preventative conservation care of objects displayed in historic houses, and the training methods given by the professional conservation staff to the nonprofessional house staff. The author illustrates the importance of thinking about an emergency procedures plan with the example of the fire which destroyed Uppark house in 1989. (AATA)

The National Trust *The National Trust Manual of Housekeeping. The care of collections in historic houses open to the public.* Elsevier, Amsterdam, Boston (2006), 941 pp.

Thickett, David. Vibration damage levels for museum objects. *ICOM Committee for Conservation, ICOM-CC : 13th Triennial Meeting, Rio de Janeiro, 22-27 September 2002 : preprints.* ICOM-CC; James & James, London (2002), pp. 90-95.

Adequate risk assessment for vibration is hampered by the lack of published damage levels for museum objects. The opportunity to study levels of vibration that cause damage to objects was presented by a major building project, The Great Court at the British Museum. The measured damaging vibration levels were between 0.2 and 0.6 g. The results of measured vibration caused by circulation in the British Museum are assessed in terms of

these measured damage levels. When assessing the likely impact of building work, vibration transmission through structures to areas remote from the building work must be considered. Examples of damage to individual objects and vibration transmission are discussed. (AATA & BCIN)