ASSESSMENTS AND SURVEYS (OF CONDITION, RISK, VALUE, ETC.)

Ashley-Smith, Jonathan. Practical uses of risk analysis. *The Paper Conservator* 25, (2001), pp. 59-63.

What distinguishes professional conservators from others who have a practical involvement with historic objects is the reflective nature of their decision-making. Decisions about practical treatments involve elements of risk: probabilities of unwanted outcomes that reduce the value of the treated object. The continuing development of conservators should be aimed at reducing the uncertainty of decision outcomes by increasing knowledge, and decreasing the uncertainty of action outcomes by increasing practical skill. (AATA/BCIN)

Ashley-Smith, Jonathan *Risk assessment for object conservation* Butterworth-Heinemann, Oxford; Boston (1999).

This book explains the mechanisms of deterioration of museum artifacts, quantifying the probability that damages will occur and estimating the rate of progress when it does. The principles outlined and the comprehensive explanations of scientific or mathematical material to take into consideration the readers who have no background in these areas, alongside a basic introduction. The structure of the book provides a logical progression through tools concepts information and examples. (BCIN)
This book is about the effect of use and environment on objects in museum collections. It offers guidance on reduction of risk to exhibits of movable objects, defined as "anything smaller than a cathedral." The author makes a point of distinguishing objects from living beings who have needs, desires, and rights. The museum makes use of external resources and provides benefits beyond its walls; risks should only be taken if the benefits warrant it. The author's fundamental philosophy is that accepting risk is the same as accepting damage. (AATA)

Avrami, Erica; Dardes, Kathleen; De la Torre, Marta; Harris, Samuel Y; Henry, Michael and Jessup, Wendy Claire (contributors). The conservation assessment: a proposed model for evaluating museum environmental management needs. (1999)
http://www.getty.edu/conservation/publications/pdf_publications/assessmodeleng.pdf

An essential first step in the establishment of an environmental management strategy for a museum is an assessment of the various factors that may affect the preservation and care of the collections. Such an assessment should focus on the museum environment in its broadest sense, taking into account both the physical and the organizational aspects of a museum. The physical environment is the actual set of conditions in which collections are housed, exhibited and used. The organizational environment includes a museum's mission, functions, resources, and institutional

activities. Both these environments are to a large extent inter-dependent and play a role in the preservation of museum collections. (From publication)

Bradley, Susan. Defining suitability of museum galleries by risk mapping. *ICOM-CC: 14th triennial meeting, The Hague, 12-16 September 2005: preprints.* Verger, Isabelle, Editor. (2005), pp. 574-581.

In the British Museum, attitudes towards the exhibition of objects in museum galleries are changing. Adaptation of existing galleries can go ahead within tight financial constraints and without a feasibility study phase, limiting the opportunity for conservation specifications to be implemented and creating opportunities for new exhibits without considering preservation needs. To ensure that conservation concerns are taken into account, a gallery risk mapping exercise has been begun at the British Museum. Published work on risk assessment in conservation which has focused on objects has been adapted to nine environmental factors (temperature, relative humidity, ambient pollutants, particulates, visible light, ultraviolet light, vibration, and insect pests). The outcome will provide planners with the information to design object-friendly galleries.

Brokerhof, Agnes W. Collection risk management - the next frontier. (2006). http://www.museums.ca/protection/en/presentations/Brokerhof.pdf

Brokerhof, Agnes W.; Luger, Tessa; Ankersmit, Bart and Bergevoet, Frank. Risk assessment of Museum Amstelkring: application to an historic building and its collections and the consequences for preservation management. *14th triennial meeting, The Hague, 12-16 September 2005: preprints.* James & James, London (2005), pp. 590-96.

Museum Amstelkring is an historic building with a hidden church and mixed collections. It attracts many visitors and the church is still in use. The museum is still concerned that it can no longer adequately balance preservation and presentation requirements. Instituut Collectie Nederland (ICN) was asked to give integral advice on preventive conservation, visitor impact and collection management, and to investigate whether building an extension to the museum might ease the pressure on the main building and create better opportunities for the collection. A complete risk assessment and other investigations were done to attach objective measures to perceived issues and quantify risks so that their relative importance could be determined. This approach enables museum management to prioritize and make reasoned decisions about improvements and investments. For museum staff it draws attention to weaknesses in working procedures while for conservation scientists it reveals issues that need further research. (AATA/BCIN)

De la Torre, Marta *Assessing the values of cultural heritage - research report.* Getty Conservation Institute, Los Angeles (2002), 120 pp. http://www.getty.edu/conservation/publications/pdf_publications/assessing.pdf

This research starts to address issues such as the lack of recognized and widely accepted methodologies for the assessment of cultural values, as well as the difficulties of comparing the results of economic and cultural values assessments, by focusing on methods of identifying, articulating, and establishing cultural significance. Cultural significance is used here to mean the importance of a site as determined by the aggregate of values attributed to it. The values considered in this process should include those held by experts—the art historians, archaeologists, architects, and others—as well as other values brought forth by new stakeholders or constituents, such as social and economic values. (From publication)

Greeves, Margaret. Risk Management at the Fitzwilliam Museum, Cambridge. *Journal of Architectural Conservation* 7, 3 (2001), pp. 67-79.

The Fitzwilliam Museum, Cambridge, is a Grade I listed building housing an internationally important art collection of half a million objects. The building and the collections belong to the University of Cambridge, of which the museum forms a department. Maintenance of the fabric and equipment is the responsibility of the university's Estate Management and Building Service, with whom museum staff work closely to ensure appropriate conditions for the collections and the reduction of risks to objects and staff. Following the drafting of a conservation plan and an examination of risks and their management, this case study reviews the museum's risks. It proposes the development of a building "bible" and attention to staff communication as essential elements of the risk management strategy it outlines. A second article will examine the effectiveness of the conservation plan in relation to maintenance works and an extension of 3,000 square meters, which will be built in 2002-03. (AATA)

Marcon, Paul J. Decision support models for preventive conservation. *The interface between science and conservation. Occasional papers (British Museum) 116.* Bradley, Susan, Editor. British Museum, (1996), pp. 143-15.

A computer-based, preventive conservation decision support model is being developed for museum professionals. Its main applications include building surveys and planning exercises where it is necessary to make choices from a wide range of design features that control nine agents that cause material damage in museum collections. The basic components of the decision support model include an audit of building features and a collections damage model. The audit assesses control features and generates sequences of control feature improvements derived from expert judgment. The

collections damage model ranks control measures by accounting for the nature and susceptibility of the collections to each agent of deterioration. This report describes the preservation feature audit and the method by which expert judgment is incorporated into the audit and collections damage model. (AATA)

Taylor, Joel. An integrated approach to risk assessments and condition surveys. *JAIC* 44 (2005), pp. 127–141.

This article discusses the integration of risk assessment and collection condition surveys, with reference to the uncertainties inherent in each of these two procedures. While condition surveys provide information on a collection's immediate condition, risk assessments add predictive aspects on the collection's potential for deterioration. Looking at probable causes of damage in a condition assessment can provide a link to the agents of deterioration examined in a risk assessment. Combining these two complementary assessments can provide useful insights and clarify priorities for the collection's management goals. Comparison of the advantages and disadvantages of two types of evaluation processes in visual perception, top-down and bottom-up, are discussed as they apply to the integration of the two assessments. Additionally, the article describes the use of an integrated assessment approach for a survey of the English Heritage collections. In conclusion, it was found that integrating condition surveys with risk assessments could increase the knowledge and understanding of current and future expectations of a collection. (Author's abstract)

Taylor, Joel; Stevenson, Siobhan. Investigating subjectivity within collection condition surveys. *Museum management and curatorship* 18, 1 (1999), pp. 19–42.

This contribution addresses the possible problems and biases associated with carrying out a 'tick box' condition survey. The areas examined stem from the motivations and objectives of a survey, through to the design, data collection and analysis, and it is demonstrated that subjectivity is certainly present within the structure of the survey methodology at numerous stages. Subjectivity of condition surveying was experimentally determined using a number of different people who were asked to assess the condition of the same objects, and they were chosen to represent a range of levels of experience in conservation. When the responses were analysed a very significant degree of subjectivity was found. Surveyors tended to look for different things: superficial damage for those without conservation experience, more underlying features for those with. Since the surveyors were chosen to represent a spectrum of conservation experience it was possible to recognise the effect of training in increasing reliability. Assessing the potential problems of surveys, the authors conclude that objectivity and validity of a survey cannot be assumed when using current methods. Suggested are possible ways of increasing the reliability and validity of the data which is collected.

Taylor, Joel; Watkinson, David. Using multiple hypotheses in collection condition surveys. *The conservator* 27, (2003), pp. 13-22.

Assesses various problems associated with standardized methodologies and forms used in collection condition surveys. Three connected problems were explored: standardized methodology, diagnosticity, and induction. These problems can result in interpretational bias when analyzing condition data and in the possibility that data could be used to support contradictory conclusions. Using multiple working hypotheses is recommended as a means of relating assessment to specific collections: the process of hypothesis testing is one means of reducing the interpretational bias. The use of a set of hypotheses means that different explanations of the problems can be reviewed at the same time, adding focus to the survey. Generating and testing different hypotheses provides validity to conclusions and a rationale for collection management decisions. (AATA)

Waller, Robert. Conservation risk assessment: a strategy for managing resources for preventive conservation. 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, London (1994), pp. 12-16.

Ideally, practitioners of preventive conservation should be able to quantify all risks to a collection and determine the most cost-effective means of reducing overall risk to that collection. This article describes an attempt by the Canadian Museum of Nature to assess the risks to collections. Currently, the information required to produce accurate estimates of the magnitude of many risks is lacking. Nevertheless, simply attempting the exercise among a group of collections care staff produces several valuable results. Staff are made aware of the range of risks affecting collections. For certain risks, low-cost or no-cost methods of reducing the risk can be identified immediately. Conservation can use information about the uncertainties of estimates to develop improved methods for documenting damage and can develop research plans that address priority issues. Finally, the information obtained, while limited in accuracy, is coherent and comparable between diverse collections. This enables managers to make informed decisions on allocating resources for preventive conservation. (Author's Abstract)

Waller, Robert. A risk model for collection preservation. *13th triennial meeting, Rio de Janeiro, 22-27 September 2002: preprints.* Vontobel, Roy, Editor. James & James (Science Publishers) Ltd., UK (2002), pp. 102-107.

A model describing the preservation system within an institution responsible for cultural property is presented. The model describes a series of nested systems and subsystems relating specific risks to an institution's role within society. At the detail level, specific risks are deconstructed into modes of failure, events or processes, and causative or precursor events, processes, or states. Having a complete model facilitates consideration of specific issues from a higher level, metamodelling perspective. (AATA)

Waller, Robert; Michalski, Stefan. A paradigm shift for preventive conservation, and a software tool to facilitate the transition. In *ICOM Committee for Conservation: 14th triennial meeting, The Hague, 12-16 September 2005: Preprints.* Sourbès-Verger, Isabelle, James & James: Earthscan, London (2005), pp. 733-738.

Historically, like other industries and agencies that assess and manage risk, conservation adopted a process-control model of preservation. These industries and agencies recognize the process model is fundamentally inadequate and are replacing it with a predictive model based on anticipated risk. Over the last decade, preventive conservation also witnessed the development of systematic and predictive methodologies, but on a somewhat ad hoc basis. The authors here introduce a more rigorous intellectual framework adapted from the risk analysis and operations research fields. While necessarily complex and dependent on large amounts of shared expert knowledge, a comprehensive predictive model is possible. (A.A. - AATA)