

## ABSTRACT

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CULTURAL PROPERTY RISK ANALYSIS MODEL:  
Development and Application to Preventive Conservation at the Canadian Museum of Nature

### Abstract

Preventive conservation seeks to minimize needless deterioration, damage and loss to cultural property. This requires a comprehensive understanding of all hazards that might affect property and all values needing protection from those hazards. The past effects of hazards must be apprehended, the efficacy of current conservation practices must be calculated, and the predictability of future changes must be judged. Risks may manifest gradually or stochastically. In either case, the time scale over which risks to cultural properties must be considered is measured in centuries. Feedback on the consequences of preventive conservation decisions taken is too slow and too confounded to support meaningful experience-based learning. A risk-based approach to decision-making is necessary.

A Cultural Property Risk Analysis Model was developed to guide priorities for resource allocation to preventive conservation under conditions of uncertainty. This model recognizes the preservation system as a subsystem within a collection management system, which, in turn, nests within progressively broader systems. Within this set of systems and subsystems, the contribution of preventive conservation to the continuance and betterment of humanity is recognised. Carefully defining the scope of the preservation system ensures clear understanding of interactions with surrounding systems.

The risk analysis model then disaggregates risk through hierarchies both of sources of risk and of divisions of collections. The level of technical risk analysis varies throughout these hierarchies depending on the potential significance of the disaggregate portion considered. This approach makes the entire modeling process as efficient as possible. This approach is applicable to all forms of cultural property. Its broader adoption will benefit the fields of preventive conservation, conservation research, and cultural heritage management.

*Key words:* preventive conservation, cultural heritage management, collection management, risk assessment, risk analysis, risk management, preservation

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