Table 1. The Nine Agents of Deterioration – continued

Agent of Deterioration	Risks of the Agent (Form of loss or damage, and the vulnerable collections)	Hazards (Sources and Attractants of the Agent) Partial list	Some other activities and disciplines involved in management of each risk
Contaminants 1 Gases, Indoor and outdoor gases (e.g., pollution, oxygen) / 2 Liquids (e.g., plasticizer, grease) / 3 Solids (e.g., dust, salt):	Disintegration, discolouration, or corrosion of all artefacts, especially reactive or porous materials.	Urban pollution. Natural pollution. Building materials. Packaging materials. Some artefacts. Cleaning materials.	Conservation.* Building operations. Exhibit design. Building cleaning services.
Radiation 1 Ultraviolet light 2 Light (Visible radiation)	1. Disintegration, fading or darkening or yellowing of the outer layer of organic materials and some coloured inorganic materials. 2. Fading or darkening of the outer opaque layer of paints and wood to a typical depth of 10 µm to 100 µm, or to greater depths on more transparent layers.	Daylight. Skylights, windows. Electric lighting.	Conservation.* Architects. Building operations. Exhibit design. Security staff.
Incorrect temperature 1 Too high 2 Too low 3 Fluctuations	1 Gradual disintegration or discolouration of organic materials, especially if they are chemically unstable (e.g., acidic paper, colour photographs, nitrate and acetate films). 2 Embrittlement, which results in fractures of paints and of other polymers. 3 Fractures and delamination in brittle, solid materials, especially if they are layered. Cause of RH fluctuations (see "Incorrect Relative Humidity").	Local climate. Sunlight. Faulty mechanical systems	Conservation.* Architects. Building operations. Exhibit design.
Incorrect Relative Humidity 1 Damp (over 75%rh) 2 Rh above or below a critical value 3 Rh above 0% 4 Rh fluctuations	1 Mould (which stains and weakens organic and inorganic materials), corrosion (of metals), and shrinkage (of tightly woven textiles). 2 Hydrates/dehydrates some minerals and corrodes metals that contain salts. 3 Gradually disintegrates and discolours organic materials, especially materials that are chemically unstable (e.g., acidic paper). 4 Shrinks and swells unconstrained organic materials. Crushes or fractures constrained organic materials. Causes layered organic materials to delaminate, tent, and/or buckle. Loosens joints in organic components.	Local climate. Water leaks. Cold walls. Faulty mechanical systems. Inadequate ventilation.	Conservation.* Architects. Building operations. Exhibit design.