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## NSCG Newsletter

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# The Ten Agents of Deterioration - Forthcoming themes for the Natural Sciences Conservation Group Newsletter.

Your committee decided recently to apply a theme to our newsletter of the ten agents of deterioration and to address one risk per issue, starting with perhaps the most commonly thought-of risk to collections, that of fire.

Those of you who attended the Canadian Museum of Nature's Conservation Risk Assessment workshop that we organised in September 1995 will remember that the process of assessing risks to collections requires a calculation combining the likely damage to collections, the percentage loss in value and frequency of the event. (See David Carter's report on the meeting in issue 1, NSCG Newsletter). Thus fire, though fortunately an infrequent event, can be catastrophic with collections largely destroyed. What we aim to show in the next ten newsletters are examples of the ten agents of deterioration and their effect on natural history collections or museums with natural history collections and the amount and type of damage caused. This will build up a picture of the frequency of such events and should help us to establish the often simple damage limitation measures.

This issue is devoted to fire, we will tackle flood next and just to remind you the other eight agents are: physical forces, theft and vandalism, pests, light and UV, incorrect temperature, incorrect relative humidity, pollutants and custodial neglect.

Since disaster planning is likely to be high on the agenda as part of the Museums and Galleries Commission Registration phase I, we will cover the agents linked to this type of planning first. We cannot rely solely on anecdotes from committee members - we need your contributions, however succinct and intend to publish supplementary sections should you miss out on the relevant issue.

Kate Andrew

# Case Study - Fire at Eccles College

Kate Andrew, Ludlow Museum, Old Street, Ludlow, SY8 1NW

Eccles College, a sixth form college in Greater Manchester suffered severe structural and smoke damage from a fire in the building in May 1993. The insurance company loss adjuster and the college approached me shortly afterwards to assess the value, level of damage and the cost for recovery of the college geological collection. Following an initial one day visit, I prepared a report on the damage to the geology collection and several options in a fully-costed recovery programme, one of which was commissioned. The insurance company paid for the conservation work.

## Cause of the fire

The fire was started at night and although not proven, was thought to be the result of arson.

## Extent of fire damage

Eccles College is a single storey edifice, built in the late 1960s with large windows, flat or gently pitched roofs and a timber-framed panel construction. The fire was centred around the college library and computer room and these areas were completely destroyed. They were demolished soon after my initial visit and later rebuilt. Since some walls did not extend into the roof voids smoke was able to spread into many other parts of the building and the smell of smoke lingered for many months after the fire.

The fire was put out by the fire brigade, there was no sprinkler system in place, it is not known if smoke detectors were present.

## Extent of damage to the geology collection.

The college geology collection was housed in the classroom adjacent to the library. Although this room escaped the ravages of the flames and subsequent water damage from the fire hoses, parts of the collection were badly smoke damaged. The smoke appears to have condensed onto the specimens forming a matt, opaque and rather sticky layer. It is presumed that the large amount of plastics in the fire, for example library book covers, contributed to the large amount of carbon in the soot.

## Relationship between soot damage and type of container

Specimens on open display were coated in a uniform matt black layer, totally obscuring detail, it was difficult to identify many of these specimens until they were cleaned. The specimens remained stained with a pale sepia colour.