

Summary lecture

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"Safety and health for the paper conservator"

Environmental pollution has great impact on the way chemicals and chemical products are used in production plants and in the formulation of the governmental and industrial health and safety policy. On a smaller scale this is a reason why artists and restorers focused their attention in the past few years on the use of chemicals and chemical products in their work. Sometimes an accident or a beginning allergy for specific chemicals is the motive to evaluate the health risks on the work place and to improve the working conditions, but mostly a general awareness that chemicals can be dangerous to your health initiates thinking about this topic.

Although paper conservators are knowledgeable about the techniques they use, they usually have no, or a shallow background in chemistry and particularly in toxicology. Problems arise in using new materials: little is known about the properties and durability but less is known about the toxicity.

The main point in hazard assessment is establishing the exposition. The three main routes of exposure, inhalation of volatile compounds, skin absorption and swallowing of toxic compounds are discussed in relation to the specific hazards associated with paper conservation-chemicals. Ways of estimating work place concentrations are given. Hazards associated with paper conservation include exposition to organic solvents, especially isopropylalcohol, acetone, white spirits, the exposition to glues, adhesives, bleaching agents (chloroamine-T) and the exposition to dust: "old-books-dusts".

The health risks of paper conservators are compared with the exposition of ceramics conservators and painting conservators to organic solvents. The exposition of workers in the last two professions was measured by the University of Amsterdam. The exposition never exceeded the dutch threshold limit values (MAC), but in some cases high peaks were measured.

Possibilities for decreasing work place concentrations are discussed, keeping in mind the big differences in what one can afford oneself in taking protective measurements being employed in a governmental organization or as a private paper conservator.