



Preservation Tips

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Special points of interest:

- Instead of blaming the roof for leaks and damage, consider developing a formal inspection and maintenance program. This article will give you the basics
- Molds are not only bad for collections, but there is mounting evidence that it is also bad for a large portion of the public. How does your institution rate?
- If you're still using "moth balls" for fumigation, here's additional info suggesting you should reconsider that decision.

Inside this issue:

Remember Roof Maintenance 1

New Studies on Mold 1

Is Your Institution Still Using Paradi-chlorobenzene? 2

Consider Rubber Floors for Preservation 2

**Preserving the Past
for the Future**

Remember Roof Maintenance

Preservationists constantly remind institutions that the roof is a critical part of the building envelop, keeping collections safe and dry.

Often, when roofs fail and leaks develop, installation or the roof itself is blamed – yet roofs rarely receive the maintenance attention they deserve – and require. They are one of the most vulnerable parts of the building and, compared to many building products, have relatively short life spans.

Does your facility have a formal, in-house roof maintenance program? While some aspects of roof maintenance don't require a roofing professional, the program must be formalized and a schedule rigidly maintained.

The roof must be kept free of debris, and drains and scuppers must be kept clear and open.



Roof traffic should be kept to a minimum and where expected, extra protection – such as walkway pads or roof pavers – should be provided. The roof inspection should also result in a written report that is kept on file.

The National Roofing Contractors Association's (NRCA) *Elements of Roofing: A Guide for*

Building Owners is a good tool for the non-professional who needs to understand roof systems, material types, inspection procedures, and maintenance issues. It is a must-read for the small maintenance staff that is being asked to "do more with less." This same organization also has a variety of roof inspection forms and manuals. They Continued on page 2

New Studies on the Effects of Mold

If you're looking for studies that help quantify the health and economic effects of mold, there are two in *Indoor Air*. One paper, by William J. Fisk and Mark J. Mendell with the U.S. Department of Energy's Lawrence Berkeley National Lab, report that molds raise the risk of respiratory and asthma-related health problems by up to 50%.

They are careful not to suggest that mold causes the problems; however, there are consistent and strong associations – about the most we'd expect at this stage of research.

The second paper is by Fisk and David Mudarri of the EPA. The authors use the results of the first paper plus additional data

to estimate that 21% of the current asthma cases in the US are attributable to mold exposure. They note that given the impact of mold, "a significant community response" is warranted. Recommendations include better moisture control during design and better moisture control practices during construction.



Example of walkway pads used to help protect the roof in high traffic areas.

Remember, you get what you pay for [in roofing] — especially with low bid. Paying more for quality installation should be averaged against the cost of repairs, early replacement, and damaged collections because of poor installation.



Example of rubber flooring in a library setting.

Remember Roof Maintenance, from page 1

can be found on-line at <http://www.nrca.net/>.

Whether done in-house or by a roofing contractor, yearly inspections should include specific issues:

Flashing. Flashings are critical because most leaks begin in these areas. They are typically stressed more than the membrane covering the roof because of thermal movement and UV damage. Areas of special concern include around skylights, along the building perimeter, at walls, all penetrations, where equipment has been placed on the roof, and at drains.

Field. The “field” is the roof covering. Inspections here

should focus on surface wear, the integrity of the seams, and the overall condition of the material.

What about replacement issues? If you’re looking at replacement here are some critical issues to begin talking about with those who control the purse strings:

Compare the upfront installation cost with the expected age at replacement. A less expensive system that lasts only 10 years may not be as good a bargain as a more expensive roofing material with a 20 year life expectancy.

Remember, you get what you pay for – especially with low

bid. Paying more for quality installation should be averaged against the cost of repairs, early replacement, and damaged collections because of poor installation.

Consider the warranty – 5 years, 10 years, no-dollar-limit.

Also consider the roofing contractor and the specific roof system being considered. What is their record of past performance? Spend the time actually checking into these issues.

Finally, remind purchasing of the importance of the building’s contents. Point out the need for redundancy to prevent leaks. Lobby for specifications to protect your collections.

Is Your Institution Still Using Paradichlorobenzene?

Paradichlorobenzene . . . the chemical name for moth balls, a “fumigant” often used by smaller, cash-strapped museums. Thought to rid collections of moths and other pests, such as silverfish, moth balls are still frequently sold and every once in a while will still be smelled at some house museum.

We have known for years,

however, that paradichlorobenzene has the potential to affect human health. Very high usage can result in dizziness, headaches, and liver problems. The U.S. Department of Health and Human Services (DHHS) has determined that the product may reasonably be anticipated to be a carcinogen. OSHA has set a maximum level of 75 parts of paradichlorobenzene

per million parts air in the workplace (75 ppm) for an 8-hour day, 40-hour workweek.

At least one state (Ohio) has also recognized the role this chemical plays in the depletion of the ozone layer and has taken steps to essentially outlaw its use. The proposed changes are designed to limit volatile organic compounds

Consider Rubber Floors for Preservation

Rubber flooring is a great alternative to carpet. Rubber has great longevity, slip resistance, and resilience. New designs and patterns reduce its industrial appearance. And it improves indoor air quality (IAQ).

The life cycle of rubber flooring is exceptional – about 30 years. In addition, when replaced, the old flooring can be recycled. A

benefit to many building programs, rubber flooring will contribute to LEED points.

If considering rubber flooring, make certain that the product selected doesn’t include PVCs. Not only is this important in terms of off-gassing in, but it also guarantees that no hydrochloric gas or toxic halogenated dioxins or furans are

produced in the event of a fire.

Cleaning and maintenance are also easy and green. They do not need to be waxed or sealed because of their dense, non-porous surfaces. Maintenance consists of simple dust mopping with a mild, pH neutral cleaning product. This also dramatically reduces labor costs.