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## Paper Degradation: II

Storage and handling conditions will affect life expectancy. A paper that is seldom used, is stored under ideal conditions of moderate temperature, low relative humidity, constant conditions, and little exposure to light, and is kept in a space that has excellent filtration systems to keep out pollutant gases, has good probability of reasonable life, even if the paper is somewhat unstable to aging. On the other hand, if the paper is frequently used and is kept in conditions that are hot, humid, and variable, it will have less life expectancy. [<http://aic.stanford.edu/sg/bpg/annual/v19/bp19-01.html>] [Ed. *This would be a major argument, it would seem, for at least housing as many covers as possible in albumed plastic pages, as the covers are protected against touching, light, and external physical damage, such as bending corners, fraying edges, ripping, tearing, etc.*]

From Paperworks, Studio for Paper Conservation. an art preservation consulting firm in Ireland.

Paper deteriorates for a variety of reasons. These may include defects in the paper itself such as low-grade fiber and acidity, but environmental factors like pollution, high temperatures, fluctuating humidity, light and infestation by insects or micro-organisms can also be responsible. Deteriorations can also arise simply from poor handling by users or inappropriate earlier repairs. [Ed. *'Inappropriate earlier repairs' reminds me of scotch tape that has been used on covers, especially the outside. Invariably, the tape ages, turns brown and brittle, and leaves a ruinous discoloration on the cover*]

Poor storage, bad framing, mishandling, misuse, accidents and disasters accelerate deterioration and lead directly to some of the common problems outlined below:

**DISCOLORATION:** darkening of the paper as acid hydrolysis occurs in the paper fiber, can be a result of the manufacturing process, fiber impurity, or simply by contact with unsuitable storage materials, can lead to embrittlement. [Ed. *Don't put covers next to metal, rubber, etc.*]

**FOXING:** brown spots that occur across the surface of a sheet, possibly rusting of iron specks or fungal activity. [Ed. *i.e., the frequently seen browning of old covers around the staple, as the staple has oxidized and rusted*]

**FADING:** loss of color intensity by over exposure to light. [Ed. *Don't expose covers to sunlight for long periods*]

**MOULD:** biological activity occurring in damp conditions. [Ed. *Don't store covers in areas of high humidity; more of a problem in certain areas of the country than others, but I'd think twice about storing collections in basements and cellars*]

**BURNING OR WOOD STAINING:** appearing on the surface of a picture where paper is directly backed by wood. [Ed. *Something to think about, perhaps, when permanently mounting covers on wooden frames, etc.*]

**TIDE LINES:** staining caused by direct contact with water. [Ed. *Keep covers dry and off the floor (in case of flooding)*]

**SURFACE AND INGRAINED DIRT:** exposure to airborne pollutants, particulate matter, fly specking. Continuous unprotected handling. [Ed. *Plastic pages!*]

*This series ends with Part III in our next issue*