

SOURCES OF DETERIORATION AND DAMAGE TO PAPER MATERIALS

PAPER SUBSTRATE

BIOLOGICAL INFESTATION (One should note whether there is live, i.e. active, infestation)

1. Mold: may be visible as a fluffy, colorful live cluster of filaments, or a stain with inactive spores, or may be practically invisible except when examined in ultra-violet light. Mold attack may be evidenced by a spongy, friable area of the substrate, caused by a weakening or loss of sizing material.
2. Foxing: brownish mold stains which appear in either small, bull's eye- or larger snowflake-like patterns.
3. Flyspecks: acidic excrement which appear in either small, dark, glossy spots on top of the surface of the substrate.
4. Insect incrustation: squashed fly legs, etc.
5. Insect grazing: loss substrate surface in a pattern of meandering channels caused by attack of silverfish, cockroaches, etc.
6. Wormholes: loss of the entire substrate from channeling by bookworms, etc.
7. Mousechew: loss of the entire substrate with a serrated edge pattern from rodent attack.

STRUCTURAL DAMAGE (Note whether the damage has been repaired)

1. Brittleness: overall weakness of the substrate or its support (mount, mat, etc.) caused by inherent acidity of the material, which can result in its snapping, cracking, or breaking upon handling or folding.
2. Fragility: overall weakness of the substrate caused by handling, which can lead to immediate tearing.
3. Split: a soft-edged, linear break in the substrate caused either by a contraction of restricted paper or the rupture of the paper along a worn crease or fold.
4. Tear: a soft-edged, irregular rip in the substrate which may have overlapping edges, and can be characterized as branched, accordion pleated, ragged, etc.
5. Cut: a hard-edged, linear separation of the substrate.
6. Trim: reduction of the edges of the substrate by cutting.
7. Loss: a void caused by loss of the substrate either inside or outside the substrate's original perimeter.
8. Hole: a puncture without loss in the substrate which may be caused by tacking, pin-pricking, etc.

ADHESIVE DAMAGE (Note whether the adhesive is original or later addition)

1. Pressure Sensitive Adhesive Tape: plastic, cloth, or paper backed adhesive which is removable only by organic solvents and may cause running of the media and staining, translucency, and skinning of the substrate. Examples: Scotch Brand, masking tape, carpet tape.
2. Water-activated Adhesive Tape: cloth or paper backed adhesive tape which is reversible in water and may cause impressions and staining. Examples: linen tape, Kraft paper tape.
3. Heat-activated Adhesive: adhesive with or without a backing which may have the same properties listed under 1 above and may also cause blocking. Example: Drymount tissue.
4. Adhesive residue: an accretion sitting on the surface or permeating the substrate fibers, applied overall or locally, which may be tacky, cracked or brittle and cause sticking, skinning, contraction, or staining. Examples: paste, glue, resin, wax, etc.

PLANAR DAMAGE

1. Fold: a turning over of the support so that the front or back surface is in contact with itself; the line of flexing may or may not be creased.
2. Dog-ear: a local damage at the corners, with multiple folds and creases.
3. Crease: a line of crushed or broken substrate fibers, the result of a fold.
4. Cockling: a soft concave/convex distortion characterized by parallel, repeated ripples, usually either horizontal or vertical.
5. Buckling: a soft concave/convex random distortion.
6. Warp: one over-all concave/convex curve
7. Wrinkling: an angular, crushed distortion
8. Accordion Pleat: a regular series of folds from jamming.
9. Draw: a local distortion at a corner, marked by diagonal cockling from the corner toward the center of the support, usually caused by tension from a corner mounting of the support to the secondary support or mat.
10. Dimpling: a local distortion, usually at a corner, marked by a distinct concave area of the support surrounded by a raised crease or soft convex curve of the support, usually caused by a local adhesion of the support to the secondary support.
11. Bulge: a convex concentric expansion caused by humidity.
12. Dent: on concave impression caused by force.

SURFACE DAMAGE

1. Delamination: a separation between layers of the substrate of the substrate and its support.
2. Skin: an area where the substrate surface has been removed in a uniform thin layer which may be the result of tape removal or sticking of the substrate to some surface.
3. Abrasion: an area where media or substrate fibers have been lost due to rubbing or repeated friction.
4. Scratch: a scrapped line which results in the loss of fibers.
5. Scar: a compressed scratch from which fibers are not lost but an impression is left.
6. Shine: a glossy area caused by accidental burnishing.
7. Dull Spot: a matte area which may be caused by water, dry-cleaning, etc.

DISCOLORATION

1. Light Degradation: general darkening or yellowing resulting from deterioration products in the substrate which are light-activated and often acidic. The degree of change can be ascertained if any areas of the substrate have been protected from light by a mat, backboard, or the medium (characterized by light halos encircling alkaline-based media).
2. Oxidation Stains: yellowing along the edges of the substrate from marginal exposure to air, as seen on book pages or the edges of framed items.
3. Mat Burn: darkened line paralleling the bevel of a window mat resulting from volatile acids emanating from an acidic inner core of the mat.
4. Wood Burn: darkened areas resembling wood grain or knot holes resulting from acids and resins present in wooden slats used as frame backs. It may also appear as one or two brownish lines across the substrate indicating where the slats met.
5. Water Stain: a broad stain caused by movement and deposition of discoloration products carried in an aqueous solution and distinguished by a dark, curvilinear tide-line along the point of evaporation.
6. Oleaginous Stain: a stain caused by an oily or resinous substance.
7. Stain: any color change perceived as lying within the substrate fibers rather than on top of them.

SURFACE SOILING

1. Dust: accumulation of fibers on the surface.
2. Soot: greasy, blackish grime resting lightly on the surface and resulting from atmospheric pollutants.
3. Smoke Damage: heavy particulate film of soot.
4. Embedded dirt: mud or rubbed-in dirt which does not respond to dry-cleaning.
5. Finger Prints: greasy or dirty marks absorbed into the substrate fibers.
6. Accretion: an opaque substance overlaying rather than impregnating the substrate fibers.

MEDIA

1. Flaking: continuing loss of media, presaged by curling or "cupping" of sections of the media, and resulting from a weak initial binding or delamination between media and support.
2. Cracking: a series of cleavages resulting from either the different rates and degrees of expansion and contraction of components within the medium and the substrate, usually induced by fluctuating relative humidity.
3. Abrasion: loss of surface due to repeated rubbing.
4. Fading: loss of intensity of media tone due to the bleaching action of exposure to light.
5. Bleeding/Feathering: running of the colorants within the media.
6. Binder Migration: capillary seepage of the binder within the media.
7. Strike-through: sinkage of the colorants and/or binder of the media to the opposite side of the paper.