



PO Box 45 Skaneateles, NY 13152 (315) 685-8534 fax (315) 685-0027

Glossary of Conservation & Technical Terms

Abrasion, Damaged areas of paint resulting from the scraping, rubbing, and grinding away of the upper paint layers.

Accretion, Accidental deposit of a foreign substance on the surface of a work of art. In paintings, often fly specks.

Acrylic, Refers to a class of synthetic polymeric resins used extensively in emulsion paints, varnishes and adhesive formulations. In the sheet form acrylic resins bear trade names such as Plexiglas, Lucite and Perspex.

Alligator crackle, a pattern of crackle produced by shrinking in a rapidly drying upper layer lying over a slow drying still plastic lower layer. The pattern of traction crackle is a characteristic complex branching in which apertures are abnormally wide and disfiguring.

Backing, A rigid board of Fome-Core, cardboard, Masonite or similar material attached to the reverse of a stretcher or a frame to protect the painting from blows, dirt, labels and buffer environmental conditions. Labels should be attached to the backing, not the reverse of the painting.

Batten, A wooden strip attached to the reverse of a wood panel painting for the purpose of providing additional structural support. Battens can be found attached to the panels either parallel or perpendicular to the grain of the panel. Several battens with sliding cross members constitute a cradle.

Bitumen, A brownish-black mineral pitch found in oil producing regions. It was used too liberally in the eighteenth and nineteenth centuries much to the detriment of its paint films, which have shrunk and cracked in irregular patterns. Bitumen is highly discredited as a pigment today and should not be used for oil painting.

Blanching, Pale milky cast on an old coating of varnish or paint, indicating the change that occurs in an aged coating after a solvent has been applied and then has evaporated, leaving a milky appearance, usually irregular in distribution.

Blister, A raised bubble in a film, or paint layer, that contains an air pocket.

Bloom, A bluish cloudiness, usually in a varnish coating, attributed to high humidity exposure or certain atmospheric pollutants.

Bole, A fine, earthy clay of white, yellow or red, used in gilding and sometimes in artists' grounds. When ground with diluted egg white and applied to a wood surface, it makes a smooth ground for the laying of gold leaf. In early times terre verte (a pale green earth) was ground in this way and used as bole. The purpose of the red-orange bole is to give brilliance and warmth to the gold.

Bronze Powder, A finely powdered metal, available in a variety of colors, that is often employed as an inexpensive substitute for gold or metal leafs. The effect is inferior to that of gold or metal leafs, however, and the powder is susceptible to oxidation.

Buckling, A distortion of the picture plane often accompanied by a rupture in a paint or ground layer, caused by shrinkage or compression.

Bumpers, Tiny pads, available in assorted materials, designed to protect a wall from abrasion by a frame. Usually adhered to the bottom portion of a frame's reverse.

Butt stretcher, A stretcher design with the corner lap joints, expandable but poor design and usually creates corner draws.



Canvas, A cloth made from cotton, hemp, flax (most common material for canvasses of any age) or sometimes silk, traditionally used as a paint support. The term also means a fabric support prepared for painting and the finished painting itself.

Canvas board, Commercially prepared panel of card with a sized canvas surface.

Cardboard, A paper-pulp product having sufficient thickness to make it stiff.

Chalking, The loss of pigment in a paint layer by powdering off. This effect results from either an insufficient quantity of binding medium in the paint when originally applied or a loss of the binding medium as a result of damage or deteriorating conditions.

Chamfered, The surface formed by cutting away the angle formed by two faces of a piece of wood, etc. The inside edge of a well-designed stretcher should be chamfered.

Cleaning, Application of solvents and other liquids or gels to remove grime and discolored surface coatings, as well as retouchings and restorations not part of the original work.

Cleavage, Separation between paint layers, paint and ground layers, or ground and support. It occurs where adhesion between layers has deteriorated. Common treatment takes the form of local or total infusion with an appropriate adhesive. **Active cleavage**, a separation which is about to flake off. **Blind cleavage**, a separation (like buckling) also called a flat cleavage, which has no visible rupture. **Incipient cleavage**, the beginning of a separation, layers curled up but not quite free.

Cockling, A surface distortion (not creased) of an undulating kind, caused by humidity variations or heat.

Compensation, Replacement of loss, usually in the design layer.

Consolidate, To unite or strengthen with the aid of an appropriate adhesive.

Cracking, Craquelure, The network of fine cracks that develops in grounds, paint layers, and surface coatings of paintings during the aging or drying of the materials. **Age cracks**, due to desiccation, usually penetrate both the paint layer and ground. They are caused by strain from movement of the support. **Drying cracks or Traction cracks** resembles alligator patterns, are caused by the application of a quickly drying layer over a slower drying layer (the artist's incorrect use of materials). They can occur in the paint film, the varnish, even the ground. Their apertures can be wide. They usually do not penetrate the whole structure from support-to-surface. **Mechanical cracking**, Fracture lines, which result from a blow or dent, and usually assume a cob web like pattern, those which result from stretching tension seen radiating in curved lines from the corners. These are all accompanied as a rule by distortion of the surface plane, visible in raking light.

Cradle, A structure on the back of a panel painting consisting of fixed members parallel to the grain of the panel having slots with sliding cross members. The moveable cross members resist the warping of the panel. Designed to prevent warping, with changes in the humidity it often forces the panel to crack.

Crazing, A series of tiny breaks in the paint film, which do not expose the underlying surface.

Cupping, Paint or more layers of the structure, which because of intersecting cracks form islands, and loss of adhesion causes the edges to curl upwards. Severe cupping distorts the surface plane of the support.

Distemper, An aqueous paint made with a simple glue size or casein binder. Also known as poster colors.

Deformation, The distortion of materials, or structures subjected to stresses, or forces.

Double-packing case, A packing technique using an inner case within an outer case.

Draw, A system of wrinkles radiating from a corner of a stretched fabric or parallel wrinkles running into a stretched fabric from an edge. Caused by poor stretcher design or uneven



stretching. **Edge draws**, occur when tacks are spaced too widely and the environment fluctuates.

Encaustic, A paint made from pigments suspended in hot wax. One of the world's oldest sophisticated forms of painting, handed down from Egypt and Greece.

Expansion bolt stretcher, A contemporary stretcher of sturdy construction, designed for conservation use. It features evenly expanding corners, with inset turnbuckle hardware and metal doweling to prevent torque of the bars.

Epoxy plate (G-10), A semi rigid support panel fabricated of epoxy resin and glass cloth. When employed as a lining support with a fabric interleaf for reversibility and stretching, it takes over the majority of the work normally performed by the stretcher or strainer.

Facing, An application of protective paper or fabric with an appropriate adhesive to the face of a painting, to prevent damage during treatment, storage, transportation and to hold loose paint particles in place.

False crackle, Any pattern resembling that of crackle that is not caused by the normal drying or aging of the materials found in a painting. False crackle may be a deceptive system of ruptures produced mechanically or may be painted on the surface.

Fill, A putty like material, often toned to match a ground, used to fill a loss in the design layer, textured as necessary to match the original, prior to inpainting.

Flaking, The breaking away or detachment of one or all paint and ground layers from the support in either small particles or larger areas. *See* Blister, Buckling, Cleavage Crackle. Flaking is an extreme stage of the cross-referenced terms listed.

Fly specks, Tiny brown spots of fly excreta, damaging to paint and varnish layers due to their acidity. Prolonged contact causes permanent disfigurement. Removable by scalpel. Foxing, The discoloration of paper or other surfaces by brownish or grayish spots, believed to be caused by microorganisms (mold) developing rapidly at high humidity levels under stagnant conditions.

Floating signature, A name or initials placed on top of the surface coating of a painting or on top of a layer that is not part of the original work.

Fragility, A qualitative measure of an object's ability to withstand impact.

G-10, *see* Epoxy plate

Gesso, A pale creamy white priming composed of burnt gypsum (plaster of Paris) mixed with glue. Gesso has come to have a wider meaning today and now includes grounds made from chalk (whiting) or other inert white pigments, bound with glue size usually parchment size, calf skin glue, rabbit skin glue, or isinglass. Gesso in its various combinations provides a ground layer for oil and tempera paintings.

Granular, A paint structure that consists almost entirely of pigment particles with little or no vehicle. Used generally in describing the condition of materials that have lost their cohesiveness.

Grime, Dirt of any kind. It may be on the surface of an object or buried under a surface coating.

Ground, In picture construction, the opaque coating applied to the support after sizing to give it the correct properties for receiving paint or gold leaf. The common ingredients are glue or oil, as a medium, inert fillers, earth colors, white or red lead, and driers. The ground used on commercially prepared canvas is often called priming. *See* Priming.

Humidity, A term relating to the quantity of water vapor present in air. *See* Relative humidity.

Impact, The sudden application of intense forces to a structure. Dropping an object results in a high impact if it hits a hard surface.

Impasto, A thick, often opaque, area of paint that protrudes above the surface to which it has been applied.



- Imprimitura**, A colored under tint, frequently laid over an outline.
- Infrared** examination and photography, The use of invisible radiation (IR) useful in gaining information about the paint layer, and possible changes of design.
- Inherent vice**, Factors in the original construction, or execution which was the cause or source of later damage.
- Inpainting**, Retouching, The introduction of new paint material, done in a contrasting reversible medium, into the areas of loss in an original construction.
- Intone**, To compensate a skimmed or permanently stained paint film, subtly to the point where it no longer detracts the visual image from a viewing distance.
- In-plane**, Relating to events occurring in the plane of a structure such as the plane of a painting defined by its edges.
- Interstices**, The crevices between the threads of a canvas support.
- Keying-out**, The expansion of a painting by driving wedges or keys into the inside of the corners of stretchers.
- Keys**, Thin triangular pieces of wood tapped into the corner of a stretcher, The stretcher members are forced apart, thus tightening the canvas.
- Lacuna**, A gap or cavity caused by the loss of a flake of paint or ground from the surface of a painting.
- Lining**, The adhesion of a fabric (traditionally a fine linen canvas) to the reverse side of a canvas painting. The purpose of lining is to counteract structural weakness in the original canvas and/or to secure cleavage between the paint/ground and canvas layers. Traditionally two types of adhesives were in use, wax (hot melt) and glue, pasta, or composition (aqueous). Today a variety of tested and accepted adhesives may be used (Beva 371 being the most popular.) in conjunction with a variety of techniques and support materials to treat each painting individually based on their tolerance and principals of reversibility. Relining, Refers strictly to a second or subsequent lining, in which the old lining is removed and replaced.
- Loss**, A missing area in one or more layers of a painting.
- Mechanical cracks**, Although similar in appearance and character to age cracks, they are often caused by external local pressures.
- Medium**, The material that holds together pigment particles in paint.
- Mending plates**, Thin strips of metal with drilled holes, used with screws to securely hold a painting into a frame without the damaging effect caused by nails.
- Moisture barrier**, A layer with high water vapor impermeability (such as beeswax) which is often applied as the last stage of treatment to the back of a glue paste relining. Wax-resin linings act as its own moisture barrier. It is also applied to the reverse and edges of panel paintings to protect them from changes in atmospheric humidity.
- Overcleaning**, Taking off original paint during cleaning a picture or object. sometimes called "skimming ."
- Overpainting**, Additions that partially or wholly cover originally paint, as opposed to the limiting of retouches (inpainting) to areas of damage.
- Paint**, Finely ground pigment, suspended as discrete particles in a film forming material or medium, having the property of drying to a continuous adherent film when applied to a surface or ground. Generally, the pigments used to make the various types of paint (watercolor, encaustic, tempera, oil) are the same. The binding media differ in each. Water-soluble gums and glues are used for watercolor, wax for encaustic, egg yolk plus water and/or oil for tempera, and drying oils for oil paints.
- Panel**, A stiff primary or secondary support of wood, metal, or composition board.



Pentimento, A phenomenon in paint involving increased translucency of upper layers and emergence of tones beneath, theoretically caused by a progressive change in refractive index of an oil medium. As the index of refraction rises, more light can penetrate through the paint layer, and the drawing and underpaint once concealed show through.

Pin point flaking, Tiny losses at intersections of cracking networks, usually visible in transmitted light.

Priming, Layer following the ground layer providing modified color base and/or textured surface on which to paint. Priming and primer, meaning a preparation coating for canvas, is synonymous with ground. *See* Ground.

Provenance, The place or source of origin and subsequent history of a painting.

Rabbit, The groove on the reverse of the frame that is designed to support the painting.

Rabbit rub, Is damage caused to the perimeter of the paintings face by abrasion from the frame.

Raking light, The technique of illumination of the surface of a work of art at one side, and a very low angle, which accentuates through shadow effects the contours, texture and other features. Cupping, losses, draws, cleavages, tears, deformations, etc., show up clearly in this manner.

Relative humidity, The ratio of the partial pressure of water vapor present in the air to the saturation vapor pressure of water vapor at the given temperature. The ratio of the amount of water vapor in the air to the maximum possible at a given temperature.

Relining, The lining of a canvas painting that has been lined previously. Removal of the old lining canvas and adhesive and mounting on a new lining canvas and adhesive.

Risk assessment, An evaluation of the potential risk to an object from transport.

Selective varnishing or cleaning, Locally or partially varnished or cleaned.

Sight edge, The edge or margin of artwork visible to the viewer. The actual edge may be concealed by the frame or mat.

Size, In its broadest sense, size means any material that is used to seal a porous surface. A term frequently applied to a glutinous mixture of gelatin, skin glue, starch, resin, or gum in water. Raw canvas is normally "sized" before application of the ground or priming.

Skimmed, Refers to over cleaning of a paint layer, resulting in loss of paint through dissolving it with cleaning solutions.

Specular light, A light beam perpendicular to the surface of the art work, to show up defects during examination, and photography.

Split, A rupture in wood running along the grain from end to end of a panel or board causing complete separation.

Strainer, An auxiliary support of wood bars, fastened tight at all corners (unexpandable) on which a canvas is stretched.

Stretcher, A wooden frame over which canvas paintings are stretched. The corners are jointed but not fixed. By driving in keys or various kinds of springs, the stretcher may be expanded and the canvas tightened.

Stretcher bar marks, The appearance on the paint surface of the form of the stretcher bars as areas of relatively uncracked or uncupped paint (generally in a picture where the surface exhibits crackle). The edges of the stretcher are marked in the paint surface by fairly continuous parallel straight cracks.

Strip edging, A protective edging affixed to the outside edges of a stretched painting, with a lip which just covers the perimeter of the face, protecting it from the rabbit rub.

Support, The physical structure of a painting that holds or carries the ground and paint film. Any material such as fabric, wood metal, or paper on which a painting is executed.



Surface coating, A transparent layer or series of layers applied over the surface of a painting for protection and for a uniform reflection and surface texture. Consists usually of natural or artificial resins, waxes, or oils.

Tacking margin, The part at the extremities of a fabric used for a painting which is meant to be pulled over the edges of its auxiliary support, serving as a means of attachment.

Tempera, A paint medium in which the pigments (ground in water) are mixed with an emulsion or the yolk or white of eggs.

Tenting, Cleavage of paint and ground layers, caused by shrinkage of its underlying support. Shaped like a tent with two flat sides standing diagonally.

Tooth, The texture of a paint layer caused by the bristles of the paint brush.

Transfer (or transposition), The removal of the support from the reverse of the paint and ground layers and subsequent mounting of these on a new support. In some cases the ground is removed where it is in poor condition, and a new ground is applied to the reverse of the paint film. This method originated in France in the middle of the eighteenth century when many panel paintings were transferred to canvas.

Transmitted light, The illumination of the painting by placing the light source behind and viewing from the front. Useful in revealing losses, cracking, tears, punctures and sometimes design layer.

Ultraviolet fluorescence (UV), Refers to the visible light that comes from the surface of an object when it is irradiated with an invisible ultraviolet light. The visible fluorescence may be photographed. Useful for revealing areas of restoration, old damages, and changes in organic materials as a result of aging.

Varnish, A thin protective and aesthetic surface coating containing resinous matter either dissolved hot in a drying oil (oil-resin varnish) or cold in a solvent (solvent-type or spirit) varnish. There are natural and synthetic varnishes.

Vehicle, The liquid in which prepared pigments are mixed, to render them workable.

Vibration, Rhythmic or random oscillation of an object resulting from transportation vehicles.

Void, A loss in painting structure, which must be filled to surface level before inpainting.

Warp, Weft, In textile weaving warp is the lengthwise yarn, and the weft is the crosswise yarn in the basic structure of the cloth.

Wrinkling, A distortion of the paint layer caused by the excessive use of fatty oils, such as linseed oil, or bitumen. Also paint applied in very thick layers with insufficient drying time between applications, has a tendency to slide in the wet and unstable paint strata.

REFERENCES

"Art In Transit *Studies in the Transport of Paintings*"

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