

Utrecht Art Supplies Studio Craft: Cracking or Crazing?

Ask the Expert: "One of my recent paintings has developed what looks like cracks or splitting. None of the paint has peeled off, but I'm concerned as to what might have caused this. My process starts with a charcoal drawing on canvas fixed with clear acrylic spray, followed by oil paint thinned with odorless mineral spirits."

A: Based on your description, it sounds like your painting may have developed what is called "crazing" rather than cracking.

Crazing is a type of paint failure that involves splitting in a paint film that has otherwise attached durably. It's due to movement between the paint film and layer beneath, where the bottom layer has remained soft or re-softened and swelled while the top layer has dried quickly.



Crazed latex paint

In oils, crazing can be caused by layering a fast drying color over slow drying ones, by using slow drying or non-drying oils or by overpainting a soluble varnish layer with a strong thinner or medium.

In your case, our best guess is that the acrylicbased coating used to fix the charcoal was softened by odorless thinner, and the paint moved and split as it shrank on top of the soft varnish. This sometimes also happens when retouch varnish is applied too thickly and subsequent paint layers include enough turpentine to soften it.



Cracked Paint

Cracking occurs when paint lacks sufficient flexibility to withstand movement or stress. Paint can crack for different reasons including shrinkage and expansion of the support, pressure from an oblect against a canvas, tension of the stretcher or from dramatic shrinkage of the paint itself. Often cracked paint will remain attached to the support like tiles in a mosaic, but if adhesive power is inadequate paint loss can result.



Detail from a painting by Albert Pinkham Ryder showing both crazing and cracking

It's possible to distinguish between cracking and crazing by pattern (crazing manifests in mostly parallel rows, while cracked paint has a "checkerboard" appearance), whether paint has attached firmly (crazed paint usually achieves firm adhesion) and whether paint is flexible or brittle (crazing can occur in soft paint).

Crazing is not just an issue with oils. This defect can occur in acrylics when layering acrylic gesso over PVA glue (which can swell or re-wet), and also in rare cases when surfactants migrate to the surface of a dry layer of paint. Special "crackle" finishes are available to deliberately induce this effect for decorative surface designs.

Paint that has crazed will normally achieve a stable state with firm attachment. If you are able to confirm that the paint has stuck fast, it should be possible to overpaint the affected passage. Going forward, however, it might be a good idea to use a lighter workable fixative to isolate the charcoal, or eliminate the fixative altogether so the initial paint layer can key onto the primer.

Questions? Ask the Expert

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