

Water And Humidity

A Painting's Worst Enemies

By HOWARD REHS

AS WE ENTER INTO the 2006 hurricane season, we can't help but recall last year's devastating storms. For all of us who own fine art, especially oil paintings, those memories may make us wonder how weather — particularly rain, floods, and humidity — affects our works, and what we can do to prevent damage.

First, let's understand the actual make-up of an oil painting. I will limit myself to older works of art for this discussion. Initially, the artist chooses a support, or surface, such as a piece of raw canvas stretched on a wooden stretcher or a flat panel made of wood. Then, using a brush, the artist primes the support with a smooth base coat of a material called gesso, which is traditionally made by combining chalk powder, white pigment, animal glue, and water. This base coat of gesso gives the oil paint something to adhere to while preventing it from absorbing into, and possibly damaging, the support.

You might think that all will be well once the gesso has dried and is covered with oil paint and varnish, but that is just not the case. Because the basic support (canvas, wood, etc.) is porous and exposed on the back, water — even from steam or humidity — can be absorbed, thereby reactivating the gesso. If enough water is absorbed, the bond between the oil paint and the gesso, or between the support and the gesso, can give way, causing the paint to lift or flake. Additionally, rapid changes in humidity levels may cause supports to “move,” meaning canvases can loosen up and

panels may crack. This, in turn, can cause severe cracking and even flaking of the oil paint.

To prevent this deterioration, most conservators will advise you to hang works of art in fairly stable environments. A temperature of 75 degrees and a humidity level of 55 percent are ideal. Naturally, temperatures and humidity levels in our homes, offices, and other locations will fluctuate somewhat throughout the year, but there's no need to worry about minor environmental changes. Paintings can and will adapt, as long as the changes are not sudden and dramatic.

This story, relayed to me by a conservator, illustrates just how well paintings can adapt. An important Old Master painting had been hanging all its life in a damp castle in Europe — a less than desirable environment, to say the least. When small changes in its condition began to appear, it was decided that the work should be moved to a climate-controlled environment for restoration. The results were disastrous. The painting began to deteriorate rapidly because it had acclimated to its original damp home. Once returned to its initial locale, the painting stabilized, and conservators were able to carry out the restoration on site. This story explains how many older works of art have survived for decades or centuries in environments that had little or no climate controls.

For these same reasons, paintings should be stored in the living areas of your home. Basements, attics, garages, and other storage facilities are all

prone to wide fluctuations in both temperature and humidity.

On rare occasions, the environment gets way beyond our control, and a painting can become submerged in water due to flooding, leaking water pipes, or even firefighting. If this happens to one of your works, first remove it from the water, holding it face up and level. Then, if the surface looks stable, gently blot up excess water with a soft cloth. *Do not wipe the surface.* If small areas have begun to lift, you may actually cause the paint to chip off. As soon as possible, contact a professional art conservator who can assess the extent of the damage and determine what can be done to conserve the work. You may also want to call your insurance company, which may have specific requirements in order for the loss to be covered.

In an extreme situation such as a natural disaster, our primary concern must always be for the safety of human life, not personal belongings. At my house, however, I've told members of my family that if we have to evacuate our home because of a pending flood, each of them should grab one painting on the way out. I, of course, will be carrying the rest! ■

HOWARD L. REHS, *president of the Fine Art*



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