

SHOULD I BE CONCERNED ABOUT THE HUMIDITY LEVEL IN MY HOME?

The humidity level should be an important consideration when housing works of art to avoid damage to both the media and supports. Paintings expand and contract in response to changes in temperature and atmospheric humidity. When the humidity is relatively high, the canvas contracts and tightens and eventually expands as it dries. In the case of panel paintings (pictures painted on wood), this phenomenon is reversed. Since the paint layer is less elastic than the support, it is unable to adapt itself to these variations and can consequently crack, blister and flake or become separated from the panel or canvas. Additionally, high relative humidity can promote the growth of mold on a canvas, which appears as small brown dots and can result in staining or decay. Moisture can also affect the varnish layer, resulting in crazing (premature hairline cracks) and/or blooming (a discoloration or graying). Excessive expansion and contraction of the canvas causes it to slacken and eventually sag on the stretcher, requiring either keying out or re-stretching. A painting is healthiest when taut. Over-tightening a weakened canvas in hot weather, however, can cause further damage. When the air becomes cooler, the canvas may tear as a result of the increased strain imposed upon it by moisture deposits. More rapid damage can result from quick changes in atmospheric conditions, as when a sensitive canvas is hung in a room heated by steam radiators, which quickly lose their heat when the steam is shut off. The humidity increases as the air temperature cools. The constant movement of the canvas and continuous readjustments that occur in the paint layer can accelerate deterioration. These risks of deterioration can be reduced by controlled atmospheric conditions. The temperature and humidity in your home should be kept as constant as possible, around 60 to 80 degrees and 55 to 65 percent relative humidity. Using an air conditioner in the summer and humidifier in the winter can help to maintain a favorable atmosphere. Free air circulation around the work, away from extremes of heat or cold, will prevent microclimates from developing and allow the canvas or panel to gently expand and contract as it would normally. Gilded frames and furniture can also suffer from fluctuations in humidity. During the winter months the wood dries out and shrinks. As humidity develops in the summer, the wood absorbs moisture and expands again. If the gesso layer beneath the gilding isn't thick enough to flex with the expansion and contraction of the wood it will detach, and the gilding will flake. Gilded objects should be kept away from heating, ventilating and air conditioning ducts to minimize the possibility of deterioration.



lacquered and gilt panel.

Example of cracking due to humidity on this French