

Preservation and Care of Philatelic Materials

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Environmental Factors Affecting Stamps and Covers

Temperature, humidity, sunlight, artificial light, copying methods, and air are the major environmental factors which can adversely affect our stamps, covers, and philatelic literature. In addition, certain of these factors interact and produce seriously deleterious effects on our philatelic treasurers.

Mold spores are normally dormant if the ambient temperature is below 18 C. (64.5 F.) and relative humidity is below 65%. Otherwise, mold spores flourish and can attack our stamps, covers, and other materials. The damage caused by molds is known as "foxing," "rust," or "tropical staining." In addition, molds constitute a food source for insects, which, on their own, are capable of causing irreparable damage. Accordingly, we must store our philatelic materials in temperatures and relative humidities in which molds will not flourish.

Sunlight, on its own, can quickly cause a newspaper to become yellow and brittle. Even the best type of paper can be susceptible to the effect of not only direct sunlight but reflected sunlight as well. Accordingly, we must strenuously resist the temptation to decorate our living areas with framed stamps. If such decoration is desired, it is far better to frame and display inexpensive (and easily replaced) photographic copies of our stamps and covers.

We are beginning to realize that the light and heat involved in the photocopying process can have a deleterious effect on philatelic materials. Patterson (1998) points out that reasonable and appropriate photocopying of philatelic materials -- for insurance purposes, for example -- doesn't present an unacceptable risk. However, collectors who make multiple copies or who copy the same material frequently may wish to consider using digital copiers so as to minimize the effects of light scanning. Stamps and covers that show clear evidence of damage due to deterioration are probably best not exposed to additional potential danger from the photocopying process. Smith (1998) points out that international exhibitors commonly place their philatelic materials at risk in those venues where the exhibition committees or customs authorities require each exhibitor to furnish a set of photocopies of the exhibit, photocopies which commonly are not returned and thus cannot be used again. Smith (1998) suggests that photographs of the exhibits, although somewhat more expensive than photocopying, would be preferable because of the reduced exposure to intense light.

Photocopying of the philatelic materials at the British Library is not allowed. Beech (1998) notes that researchers at the British Library frequently comment on how fresh are the colors of material in the Library's collections. This is true even of the materials in the oldest collections. Beech attributes the fresh colors of the Library's materials to the fact that the library's prohibition of photocopying its philatelic materials.

There is a class of environmental agents whose effects on philatelic materials are not generally understood in so far as we are aware. These agents are the printing media used by computer printers and photocopy machines. When stamps and covers are mounted near or even on such media, is there, for example, any deleterious migration of the printing media into the philatelic materials? Some collectors even use album pages where the philatelic material is mounted within boxes having shaded interiors. Are such album pages safe?

Ordinary air can have an adverse effect on our philatelic materials. The damage can be intensified when the air is laden with moisture. The three essential environmental elements necessary for preserving philatelic materials are pure air, a temperature of 70 F., and 50% relative humidity.

For removal of large amounts of water from the atmosphere, use an electric dehumidifier. For enclosed cabinets and cases in which albums are stored, there are three commonly available and relatively inexpensive drying agents useful in efforts to control excess moisture in the air:

1. Calcium chloride crystals. Spread these crystals in a small saucer or similar container, carefully keeping the philatelic materials from contacting them. As small pools of water replace the crystals, discard the water and add fresh crystals.
2. Silica gel. These crystals last for years because after they have absorbed water, they can be regenerated in a hot oven. Silica gel has approximately 40 times the drying power of calcium chloride crystals.
3. Activated alumina. This agent has a drying power of about 200 times that calcium chloride. It costs about the same as silica gel, but it doesn't last as long.

Various atmospheric pollutants must be strenuously guarded against: particulate matter (such as smog), dusts, carbon, and -- perhaps most importantly -- tobacco smoke.

An outstanding example of precautions taken against carbon monoxide and sulphur dioxide is the Cardinal Spellman Postage Stamp Museum in Weston, Massachusetts. When the site was selected for the museum, consideration was given to it being located in an area removed from environmental contamination by carbon monoxide and sulphur dioxide. Visitors usually drive to the museum, and the parking lots were planned to be located a fair distance from the museum in order to minimize pollutants in the immediate vicinity of the museum.