

Preservation Newsletter—November, 2018

Sustainability and Preservation: can we do more by doing less?

We all know what the appropriate environmental factors are for storage of heritage collections materials, right?—We learned all about it in library school. Temperature at 68 degrees F +/- 2 degrees, relative humidity at 50% +/- 5%, avoid fluctuations at all costs. *But what is this standard based on?* For a very long time, museum objects were maintained at the same conditions as humans—and not very different from outdoor conditions. Humidification was introduced in the early 1900's when it was noticed that the water washing of airflow systems developed to removed dust and pollutants had a beneficial effect on some items during the winter months. Air conditioned cooling came about after World War II when it was noted that the cool temperatures in the caves where art was being hidden from Nazi looters reduced the occurrence of flaking paint on panel and easel painting. Little real data was presented to justify preferred controls or to examine whether the controls affected all materials in a similar way.

In 1978, Garry Thomson's *The Museum Environment* examined the available scientific evidence and attempted to derive appropriate values and ranges, but much was still left to guesswork and assumption. For instance, the relative humidity setpoint value of 55% was chosen largely because it was the midpoint of what he considered to be a "safety zone" between embrittlement (40%) and mold (70%). *But subsequent studies have proven that neither of these boundaries poses the dangers that Thomson thought they did.* In addition, his tolerance of variation in RH levels was not based on potential for damage to materials but was specifically said to be "based more on what can be expected of an air-conditioning plant than on what [collections] can actually stand without deterioration." Again, recent studies show that even large, sudden fluctuations of relative humidity have little effect on the majority of cultural objects.

So why do we continue to spend huge amounts of money burning fossil fuels to maintain tight controls over our storage environment? There are reasons both practical and psychological:

- Some of the formats we collect actually DO require a stable environment to prevent rapid deterioration, and as long as we maintain mixed collections in our storage areas, we have to provide tight control for ALL our materials.
- Change makes us uncomfortable.
- We have the idea that protecting our collections requires DOING SOMETHING, not doing less.

But what if we only maintained tight environmental controls for the materials that need them the most? What if we relied on storage furniture, boxes, and a reliable building envelope to keep the bulk of our collections physically and chemically stable? We could have lower fossil fuel emissions that will help maintain our planet; lower overhead costs that could allow us to spend more on acquisitions and

salaries—these are important considerations as we continue to learn more about what our materials need in order to endure.

The Center for Jewish History currently maintains its storage areas at 68 degrees F +/- 2 degrees and 50% RH +/- 5% and we are not currently planning on changing these setpoints.

What do you think?

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