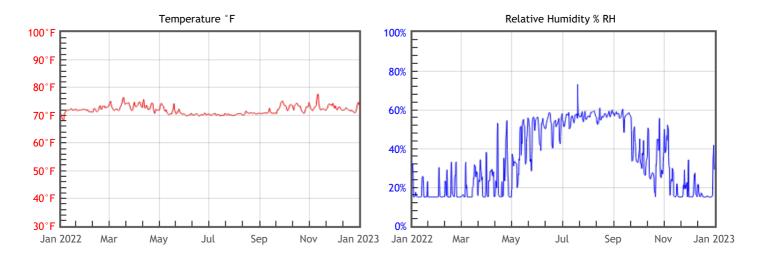
MSU Libraries • Main • Collections of Distinction • Maps Michigan State University Libraries

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	OK TWPI = 48	Generally OK, but fast decaying organic materials such as acidic paper, color photographs and cellulosic plastics will be at elevated risk due to the cumulative effects of temperature and humidity
Mechanical Damage Physical damage to hygroscopic materials	RISK % DC = 1.87 % EMC min = 3.7 % EMC max = 10.4	Heightened risk of physical damage to any hygroscopic material, such as paintings, rare books, furniture, paper, leather, film, or color photos, due to extremely low or high levels of humidity, and / or excessive humidity fluctuation.
Mold Risk Mold growth in area or on collection objects	GOOD MRF = 0	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	OK % EMC max = 10.4	Generally OK, but archeological or salt-encrusted metals may corrode due to extended periods of moderately high levels of humidity.

Graphs



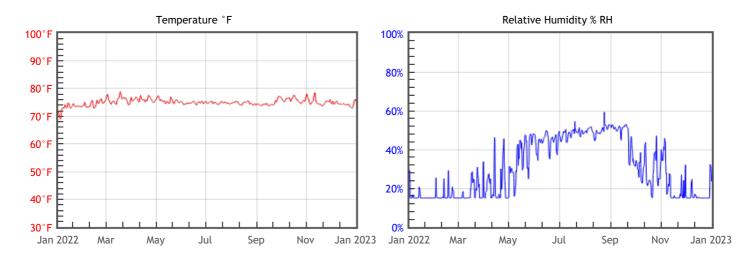
Statistics

Temperature		Relative Humidity		Dew Point	
T°F Mean	71.9	%RH Mean	35	DP°F Mean	39.2
T°F Median	71.8	%RH Median	31	DP°F Median	40.7
T°F Stdev	1.5	%RH Stdev	17	DP°F Stdev	13.4
T°F Min	68.1	%RH Min	15	DP°F Min	18.7
T°F Max	78.4	%RH Max	73	DP°F Max	63.2

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	RISK TWPI = 44	Accelerated rate of chemical decay in all organic materials due to the cumulative effects of temperature and humidity, with especially high risk for fast decaying organic materials such as acidic paper, color photographs and cellulosic plastics.
Mechanical Damage Physical damage to hygroscopic materials	RISK % DC = 1.67 % EMC min = 3.5 % EMC max = 9.5	Heightened risk of physical damage to any hygroscopic material, such as paintings, rare books, furniture, paper, leather, film, or color photos, due to extremely low or high levels of humidity, and / or excessive humidity fluctuation.
Mold Risk Mold growth in area or on collection objects	GOOD MRF = 0	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	OK % EMC max = 9.5	Generally OK, but archeological or salt-encrusted metals may corrode due to extended periods of moderately high levels of humidity.

Graphs



Statistics

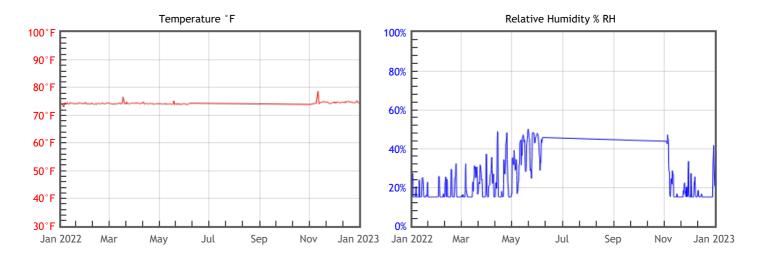
Temperature		Relative H	Relative Humidity		Dew Point	
T°F Mean	75	%RH Mean	29	DP°F Mean	37.7	
T°F Median	74.9	%RH Median	24	DP°F Median	36.5	
T°F Stdev	1.3	%RH Stdev	14	DP°F Stdev	13.1	
T°F Min	69	%RH Min	15	DP°F Min	19.4	
T°F Max	79.6	%RH Max	59	DP°F Max	60.1	

MSU Libraries • Main • Collections of Distinction • Maps Michigan State University Libraries

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	OK TWPI = 60	Generally OK, but fast decaying organic materials such as acidic paper, color photographs and cellulosic plastics will be at elevated risk due to the cumulative effects of temperature and humidity
Mechanical Damage Physical damage to hygroscopic materials	RISK % DC = 1.31 % EMC min = 3.7 % EMC max = 8.4	Heightened risk of physical damage to any hygroscopic material, such as paintings, rare books, furniture, paper, leather, film, or color photos, due to extremely low or high levels of humidity, and / or excessive humidity fluctuation.
Mold Risk Mold growth in area or on collection objects	GOOD MRF = 0	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	OK % EMC max = 8.4	Generally OK, but archeological or salt-encrusted metals may corrode due to extended periods of moderately high levels of humidity.

Graphs



Statistics

Temperature		Relative H	Relative Humidity		Dew Point	
T°F Mean	74.3	%RH Mean	22	DP°F Mean	31.5	
T°F Median	74.2	%RH Median	15	DP°F Median	24.2	
T°F Stdev	0.5	%RH Stdev	10	DP°F Stdev	9.9	
T°F Min	73	%RH Min	15	DP°F Min	22.6	
T°F Max	78.7	%RH Max	51	DP°F Max	54.8	