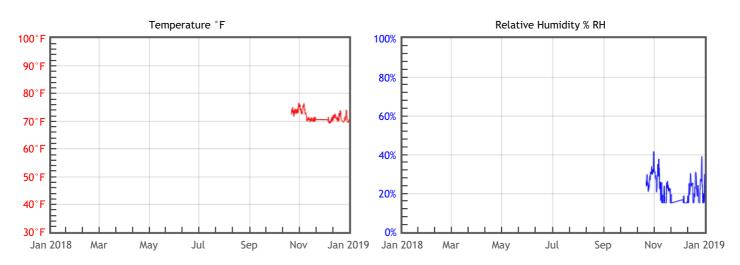
Special Collections - Back Work Room

MSU Libraries • Main • Special Collections • Ground Level Michigan State University Libraries

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	OK TWPI = 68	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 = 0.34 % EMC min = 4.1 % EMC max = 5.3	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	GOOD % EMC max = 5.3	Minimal risk of metal corrosion.

Graphs



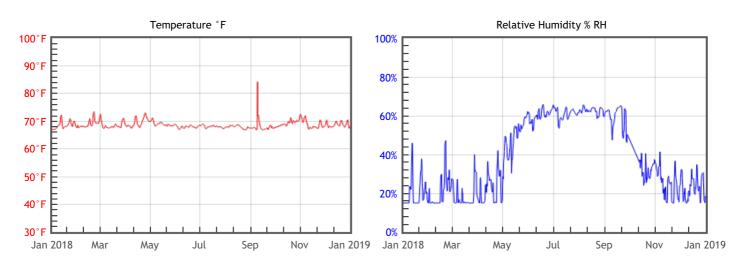
Statistics

Temperature		Relative Humidity		Dew Point	
T°F Mean	71.8	%RH Mean	23	DP°F Mean	30.9
T°F Median	71.2	%RH Median	23	DP°F Median	31.1
T°F Stdev	1.8	%RH Stdev	6	DP°F Stdev	8.1
T°F Min	69.2	%RH Min	15	DP°F Min	19.6
T°F Max	76.6	%RH Max	42	DP°F Max	51.3

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	ОК ТWPI = 53	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 = 2.08 % EMC min = 4.1 % EMC max = 11.6	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 = 0.01	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	RISK % EMC max = 11.6	Heightened risk of metal corrosion due to extended periods of high levels of humidity.

Graphs



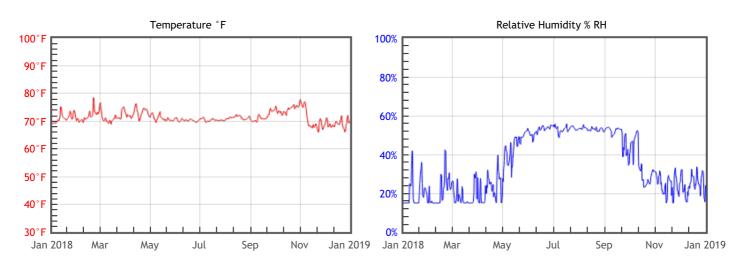
Statistics

Temperature		Relative H	Relative Humidity		Dew Point	
T°F Mean	68.6	%RH Mean	38	DP°F Mean	38.8	
T°F Median	68.3	%RH Median	33	DP°F Median	39.8	
T°F Stdev	1.3	%RH Stdev	19	DP°F Stdev	14.1	
T°F Min	66.3	%RH Min	15	DP°F Min	17.8	
T°F Max	84.2	%RH Max	79	DP°F Max	62.6	

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	ОК ТWPI = 49	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 = 1.62 % EMC min = 4.1 % EMC max = 9.9	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	ОК % ЕМС max = 9.9	Generally OK, but archeological or salt-encrusted metals may corrode due to extended periods of moderately high levels of humidity.

Graphs



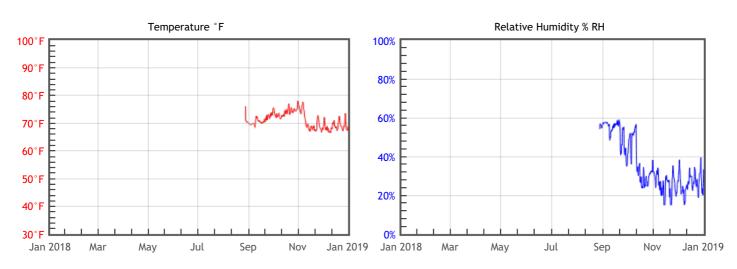
Statistics

Temperature		Relative H	Relative Humidity		Dew Point	
T°F Mean	71.3	%RH Mean	35	DP°F Mean	39.9	
T°F Median	70.9	%RH Median	32	DP°F Median	41.9	
T°F Stdev	2.1	%RH Stdev	15	DP°F Stdev	12.4	
T°F Min	65.9	%RH Min	15	DP°F Min	17	
T°F Max	78.5	%RH Max	70	DP°F Max	62.4	

Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	RISK TWPI = <mark>43</mark>	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	OK % DC = 1.3 % EMC min = 5.2 % EMC max = 9.9	Generally OK, but sensitive or fast responding hygroscopic materials such as paintings, rare books, vellum manuscripts or musical instruments will be at elevated risk of physical damage due to fluctuations of humidity.
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 = 9.9	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	71.1	%RH Mean	36	DP°F Mean	41
T°F Median	70.7	%RH Median	31	DP°F Median	41.1
T°F Stdev	2.7	%RH Stdev	13	DP°F Stdev	10.5
T°F Min	66.5	%RH Min	15	DP°F Min	17.6
T°F Max	78.1	%RH Max	60	DP°F Max	58.3