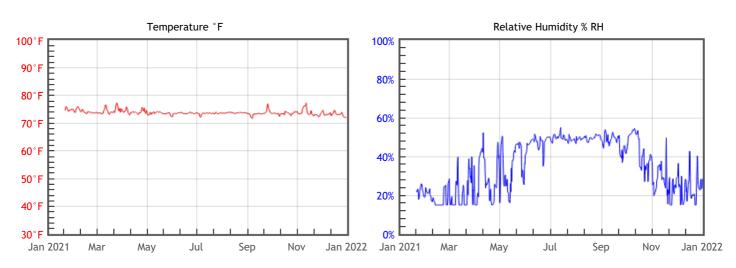
#### Special Collections - 3E Work Room MSU Libraries • Main • Special Collections • Work Areas

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#### **Preservation Environment Evaluation**

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	RISK TWPI = 42	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 = 1.49 % EMC min = 3.9 % EMC max = 9.2	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 = 9.2	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		Point
T°F Mean	73.8	%RH Mean	35	DP°F Mean	42.6
T°F Median	73.7	%RH Median	37	DP°F Median	46.9
T°F Stdev	0.8	%RH Stdev	13	DP°F Stdev	11.2
T°F Min	71.6	%RH Min	15	DP°F Min	21.9
T°F Max	77.7	%RH Max	65	DP°F Max	61.2

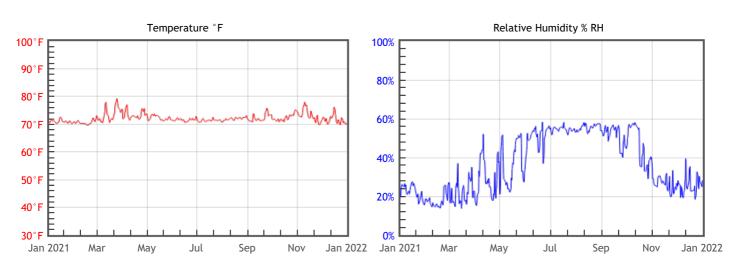
# Special Collections - Back Work Room

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#### 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 = 1.76 % EMC min = 3.9 % EMC max = 10.2	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 = 10.2	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		oint
T°F Mean	72.1	%RH Mean	37	DP°F Mean	42
T°F Median	71.7	%RH Median	33	DP°F Median	43.4
T°F Stdev	1.7	%RH Stdev	15	DP°F Stdev	11.6
T°F Min	69.2	%RH Min	13	DP°F Min	16.3
T°F Max	80.5	%RH Max	68	DP°F Max	60.7

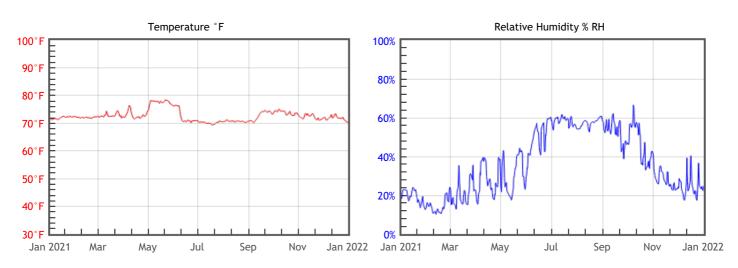
# Special Collections - Reading Room Closet

MSU Libraries • Main • Special Collections • Reading Room Michigan State University Libraries

#### **Preservation Environment Evaluation**

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	RISK TWPI = 43	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 = 2.14 % EMC min = 3.1 % EMC max = 10.8	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	<b>RISK</b> % EMC max = 10.8	Heightened risk of metal corrosion due to extended periods of high levels of humidity.

# Graphs



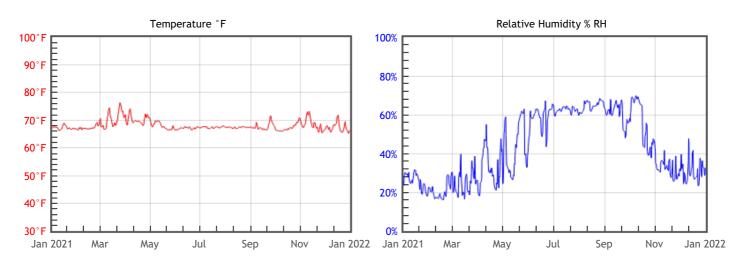
## Statistics

Temperature		Relative H	Relative Humidity		oint
T°F Mean	72.6	%RH Mean	36	DP°F Mean	41.5
T°F Median	72.2	%RH Median	33	DP°F Median	42.7
T°F Stdev	2.1	%RH Stdev	16	DP°F Stdev	12.7
T°F Min	69.2	%RH Min	10	DP°F Min	11.7
T°F Max	78.7	%RH Max	68	DP°F Max	64.3

#### Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	ОК ТWPI = 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 = 2.14 % EMC min = 4.3 % EMC max = 12	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 = 0.03	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	RISK % EMC max = 12	Heightened risk of metal corrosion due to extended periods of high levels of humidity.

#### Graphs



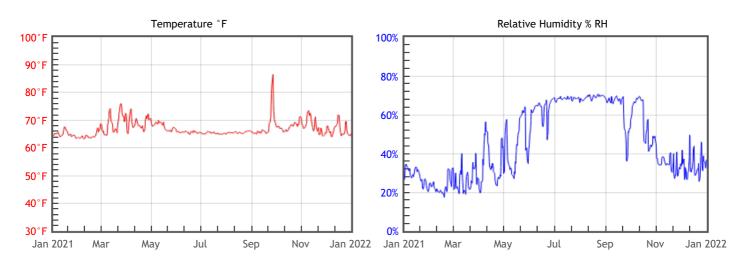
## Statistics

Temperature		Relative H	Relative Humidity		Dew Point	
T°F Mean	68	%RH Mean	43	DP°F Mean	42.5	
T°F Median	67.5	%RH Median	39	DP°F Median	43.7	
T°F Stdev	1.8	%RH Stdev	17	DP°F Stdev	11.2	
T°F Min	65.2	%RH Min	15	DP°F Min	17.2	
T°F Max	76.4	%RH Max	77	DP°F Max	60.1	

#### Preservation Environment Evaluation

Type of Decay	Risks & Metrics	Evaluation & General Comments
Natural Aging Chemical decay of organic materials	ОК ТWPI = 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 = 2.26 % EMC min = 4.9 % EMC max = 13	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 = 0.1	Minimal risk of mold growth.
Metal Corrosion Corrosion of metal components or objects	RISK % EMC max = 13	Heightened risk of metal corrosion due to extended periods of high levels of humidity.

#### Graphs



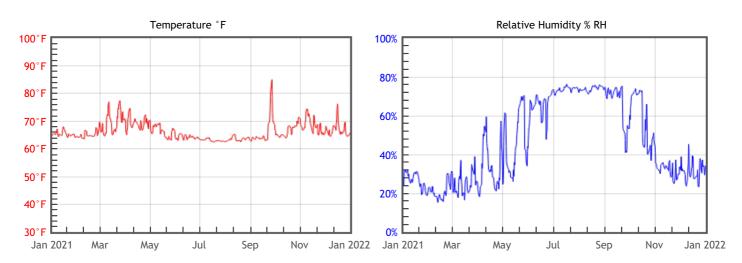
## Statistics

Temperature		Relative H	Relative Humidity		oint
T°F Mean	66.8	%RH Mean	45	DP°F Mean	43.1
T°F Median	65.9	%RH Median	40	DP°F Median	44.8
T°F Stdev	2.8	%RH Stdev	18	DP°F Stdev	11.1
T°F Min	63.2	%RH Min	17	DP°F Min	17.8
T°F Max	86.5	%RH Max	79	DP°F Max	60

#### 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 = 2.73 % EMC min = 4.5 % EMC max = 14.3	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	RISK MRF = 1.44	Heightened risk of mold growth due to extended periods of high humidity.
Metal Corrosion Corrosion of metal components or objects	RISK % EMC max = 14.3	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	66.3	%RH Mean	46	DP°F Mean	42.4	
T°F Median	65.2	%RH Median	39	DP°F Median	44.1	
T°F Stdev	3.3	%RH Stdev	21	DP°F Stdev	11.7	
T°F Min	61.9	%RH Min	15	DP°F Min	16.2	
T°F Max	85.2	%RH Max	88	DP°F Max	61.4	