

## MEMORANDUM

To: Sup. Peskin  
From: SF Rec and Park, SF Arts Commission  
Date: September 30, 2020

### **COIT TOWER WATER INCIDENT**

During COVID, Coit Tower has remained closed to the public with RPD staff periodically checking the site.

On Saturday, September 26, between 5:00pm and 6:00pm, RPD Ranger Dispatch received a 311 notice and phone calls from the public about water leaking out from the side glass door of Coit Tower (the handicapped entrance). Park Rangers quickly responded.

Upon entry, Park Rangers found the first floor flooded with about 2 inches of water and water cascading down the elevator shaft. Park Rangers immediately alerted RPD staff and stand-by plumber.

- **Arts Commission was immediately notified.** They advised RPD to not touch the murals or try to wipe them down, but to let them dry in place. Arts Commission Director of Public Art, Registrar and ARG Conservation Services arrived on Sunday, September 27 to evaluate.
- **District 3 Supervisor Aaron Peskin was immediately informed.** On Saturday evening, he arrived at Coit Tower to observe as RPD staff were working. Supervisor Peskin returned to Coit Tower on Sunday along with the Arts Commission representative.

### **WATER ISSUE DETERMINED AND RESOLUTION**

The plumber located the water shut-off valves and closed them to isolate the pump and tanks and stop the water flow. The water had flowed from the 5<sup>th</sup> floor down to all floors below, flooding each floor. Also, the water found its way to the elevator shaft and was cascading down the shaft.

Upon investigation, it was determined that the water was coming from a pipe fitting between a booster pump and the 2 water tank reservoirs on the 5<sup>th</sup> floor, the fitting appears to have become dislodged by pump vibration.

With the water flow stopped, laborers and custodians immediately responded and began to squeegee and mop the water from the 5<sup>th</sup> floor to the lower floors to the exit point on the first floor, where it was pushed out of the Tower. To provide air flow to help dry out the entire area, RPD staff brought in large fans and have been operating from Saturday evening, all day Sunday, and Monday morning.

The elevator shaft remains flooded below the 1<sup>st</sup> floor. On Monday, September 28, 2020 an elevator technician is evaluating the elevator to determine how to de-water the shaft (plus evaluating elevator damage).

RPD Staff will be replacing the plastic fitting (which is standard) with a brass fitting (which is more durable) to prevent any recurrence of this system failure.

**UPDATE (11/2/20):** The elevator shaft was de-watered on Monday, October 12 and RPD started a contract with Otis Elevator to replace all the damaged electronics. The tower interior has finally dried out.

RPD staff replaced an atmospheric galvanized steel pressure tank from 1967 and a plastic bubbler/Venturi system with a new fiberglass wound bladder tank system.

#### BACKGROUND ON THE COIT TOWER WATER SYSTEM

- Water system is original to the 1930s Coit Tower.
- Water is pumped from the water lines at grade up to Coit Tower to two - 1000-gallon tanks on the 5<sup>th</sup> floor.
- From the tanks, water is then gravity-fed down the Tower to all uses – restroom, potable, irrigation.
- In past years, the gravity pressure was found to be inadequate for restroom operation and a booster pump was installed at the tanks to increase pressure to sustain restroom operation.
- **NOTE:** This is an inefficient and problematic water system design. RPD staff had identified this problem in 2019 and petitioned the PUC to install a new water service (piping and pressurization) to Coit Tower / Pioneer Park so that water can be kept at grade, rather than pumping it up the Tower for gravity feed. To date, PUC has not acted on this request. RPD will be contacting PUC again, using this incident as impetus for them to install this new water service. Ideally a new SFPUC Water-main would be run up to the building with sufficient pressure and all unnecessary piping above the second floor would be abandoned.

#### **WATER IMPACTS**

The water intrusion impacted the murals, the stucco surrounds, and the ceiling of the second floor. Specifically, the 2<sup>nd</sup> floor murals and stairwell murals were most impacted. Limited areas of water damage have been observed on the *Sports, Outdoor Life, Hunting in California, Powell Street* murals, as well as the Berlandina room. Only the *California* mural on the first floor (east side) has signs of water damage. The stucco surrounds (below the murals) were impacted on both floors.

The water flooding did damage some merchandise in the Gift Shop. The concessionaire has been on site to evaluate.

## **ARTS COMMISSION and ARG CONSERVATION SERVICES**

### **INITIAL ASSESMENT**

A tremendous amount of water came through the building as a result of this incident and the breadth of damage to the murals will not be known for a number of weeks.

Arts Commission had ARG Conservation Services monitor the murals for three weeks following the incident, as the murals dried out. Moisture readings were documented throughout this time period. ARG will use this information to help cost treatment and conservation repairs. It will also allow ARG to advise on any additional moisture remediation work RPD should undertake if necessary.

Arts Commission can cover the initial monitoring work in their existing ARG contract, but conservation to repair damage caused by the leak will likely be costly and funding will need to be determined before undertaking that work.



ARG CONSERVATION SERVICES, INC

CONSERVATION CONSTRUCTION MANAGEMENT

October 16, 2020

Ms. Allison Cummings  
Project Manager  
Civic Art Collection and Public Art Program  
San Francisco Arts Commission  
401 Van Ness Avenue, Suite 325  
San Francisco, CA 94102

Re: SFAC Coit Tower Monitoring CS20080

Dear Ms. Cummings,

This memo serves as a report for mural inspection and moisture monitoring performed at Coit Tower from September 29<sup>th</sup> to October 15<sup>th</sup>, 2020. ARG/CS was contacted by the San Francisco Arts Commission to monitor the tower frescoes after a water leak was reported on *[date]*. The cause of the failure was related to the water storage tanks housed on the fifth floor of the building. These tanks were inspected by divers who could not determine a source of the leak from the interior of the tank. The exact cause and location of the leak remains unknown.

ARG/CS conducted a site visit on September 26<sup>th</sup>, and during on site discussions first responders noted that the majority of the water passed through the elevator shaft to the lower floors. Due to abandoned conduit runs and a multitude of ways for water to travel throughout the building SFAC asked that ARG/CS inspect the murals for damage and monitor them over a period while they dry.

On September 29<sup>th</sup>, ARG/CS conservators visited the building to document areas of moisture and inspect for damages caused by water such as efflorescence, flaking, and other visual changes in the frescoes' surface. Also documented changes in sheen or surface texture as these conditions often correspond to areas of previous inpainting and restoration work.

#### METHODOLOGY

Observations were recorded by date and are formatted similarly so that comparisons can be made to identify areas with damage requiring future treatment. The methodology for documentation included the following tasks: moisture readings with a non-invasive meter, data logging of temperature and humidity, as well as photographic documentation of visual changes. Data gathered was compared to that of previous projects to determine a baseline moisture content of the walls where typically, the fresco murals in Coit Tower have a moisture reading ranging around 20-50%.

# SEPTEMBER 28, 2020

## Moisture Content

Moisture readings were recorded with an EXTECH Pinless Moisture Meter, model M0257. These readings were taken in affected areas on the first, second, and stairwell floors of the tower.

## First Floor Murals

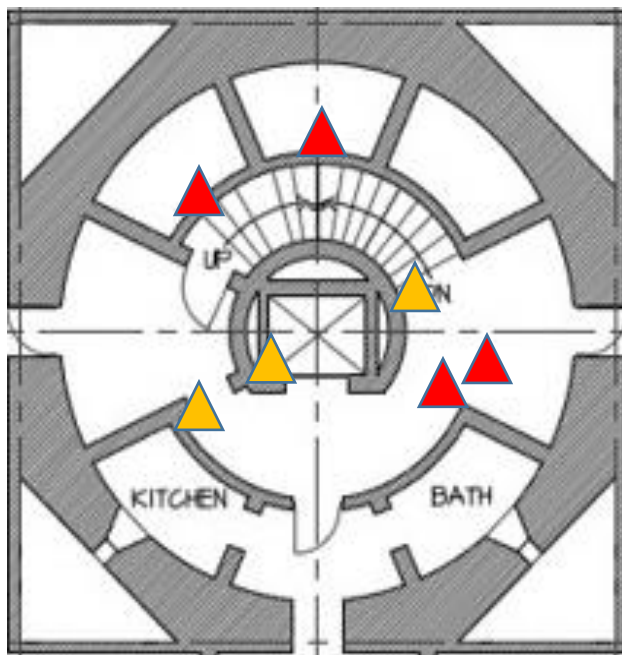
Only the *California* mural on the east side of the tower had signs of water damage from the incident. The moisture reading was 100% content at the top of the mural.

## Second Floor Murals

Water damage was observed on *Sports*, *Outdoor Life*, and the *Hunting in California* murals. Moisture readings varied from 53.2% - 70.2%. Measurements over 50% are considered “WET”.

## Stairs

Water damage was visible in the middle of the mural on the south side of the stairwell. Moisture content at the bottom of the stairs that go from the first to the second floor had a range of 64.2% - 100%.



murals. Triangles show moisture content. Orange:25% - 50%= RISK. Red: > 50%= WET.



Figure 2: Detail of a reading taken at the bottom of the stairs on the Powell Street mural.

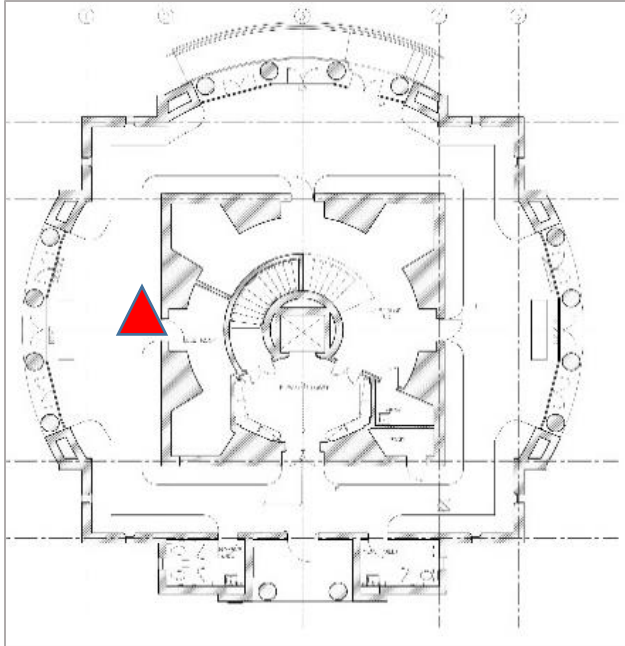


Figure 3: Moisture reading on the first-floor mural. Red triangle: > 50%= WET.



Figure 4: Detail of a reading taken at above the door frame at the California mural. Image shows 100% water content on the wall.

## EFFLORESCENCE

### Second Floor and Stairs Murals

Salt efflorescence was observed on the *Sports and Outdoor Life* murals. The area most affected by efflorescence was detected at the bottom of the stairs on Powell Street mural.

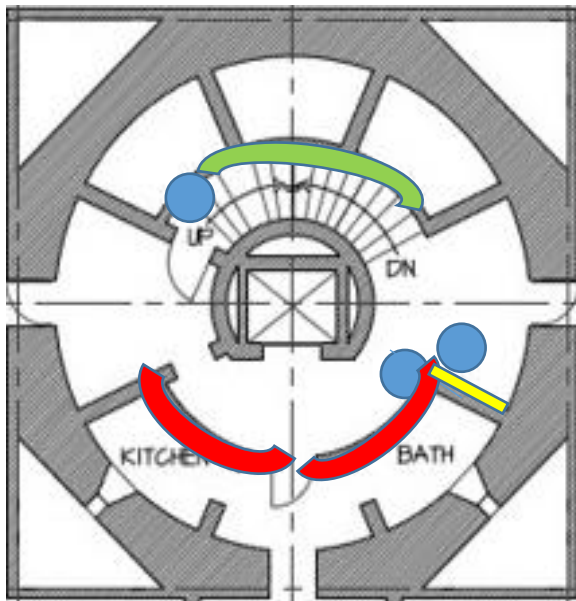


Figure 5: Blue point show location of areas with efflorescence. Green line: *Powell Street* mural. Yellow line: *Sports* mural. Red line: *Outdoor Life* mural.



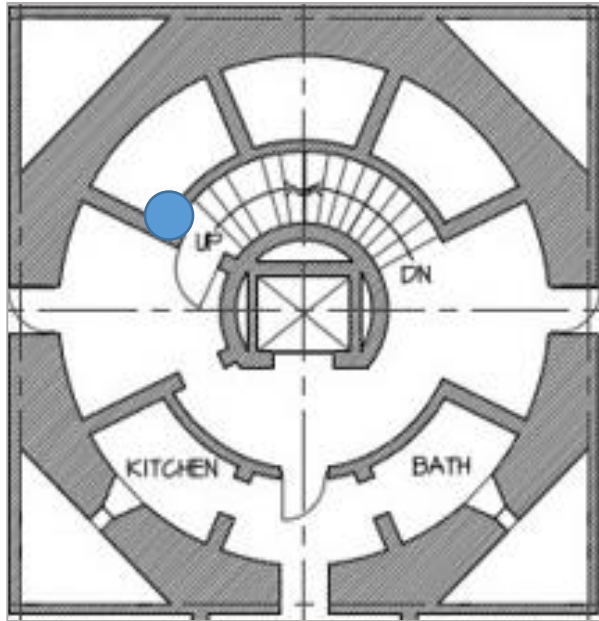


Figure 6: Blue dot shows florescence observed at the bottom of the stairs on the *Powell Street* mural.



Figure 7: Yellow arrow shows heavy efflorescence on the stucco frame around the *Powell Street* mural.



Figure 8: Detail of efflorescence on the same area.



Figure 9: Detail of efflorescence on the same area. Yellow circle shows detail of the stucco paint being pulled away by efflorescence.

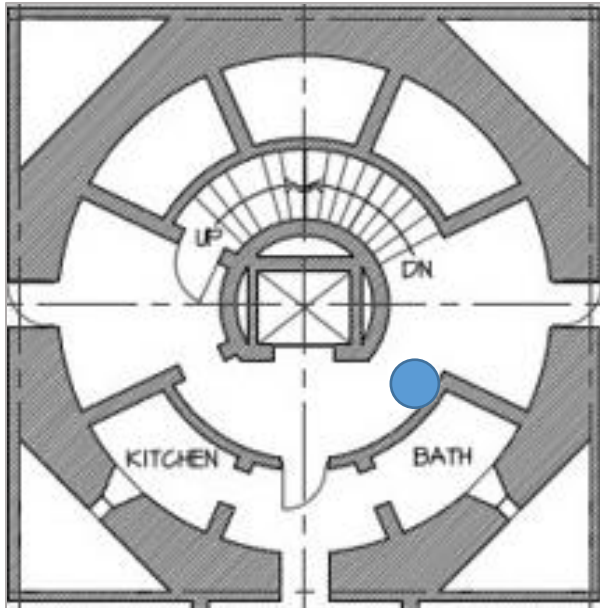


Figure 10: Blue dot shows florescence observed at the bottom of the stairs on the *Outdoor Life* mural.



Figure 11: Detail of efflorescence on the *Outdoor Life* mural.

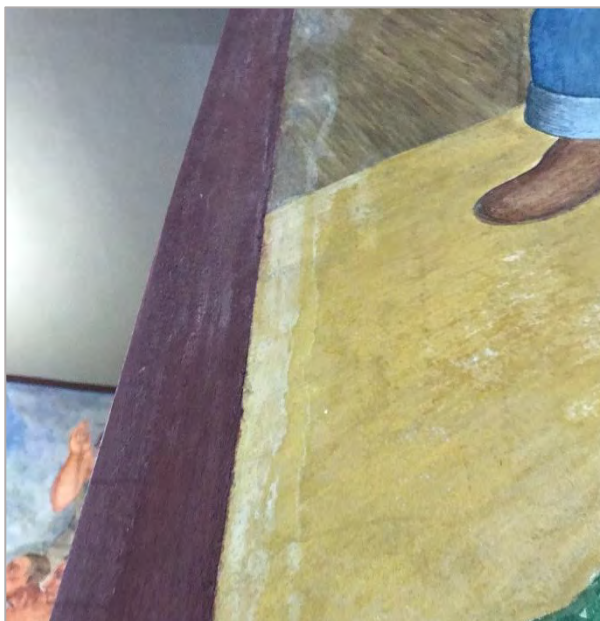


Figure 12: Detail of efflorescence on the *Outdoor Life* mural. Notice pattern followed by water coming from ceiling.



Figure 13: Detail of efflorescence on the *Outdoor Life* mural. Light accretions were emerging on the wall.



# OCTOBER 1, 2020

## Moisture Content

Moisture readings were recorded with an EXTECH Pinless Moisture Meter, model M0257. These readings were taken in affected areas on the first, second, and stairwell floors of the tower.

## First Floor Murals

The *California* mural had a moisture reading of 87.4% content, which decreased from 100%.

## Second Floor Murals

Moisture readings varied from 49.6 % - 63.7 %. Measurements over 50% are considered “WET”. Between 25-50% are considered RISK.

## Stairs

Moisture content at the bottom of the stairs near the elevator lobby had a reading range 52.1% - 85.2%

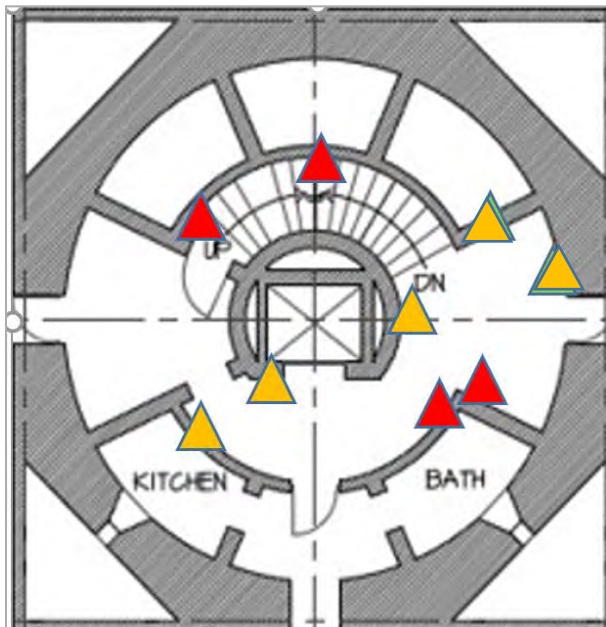


Figure 14: Moisture readings at the stairs and second floor murals. Although readings showed the walls drying out, the overall ranges stayed the same. Triangles show moisture content. Green: < 25% = DRY. Orange: 25% - 50% = RISK. Red: > 50% = WET.

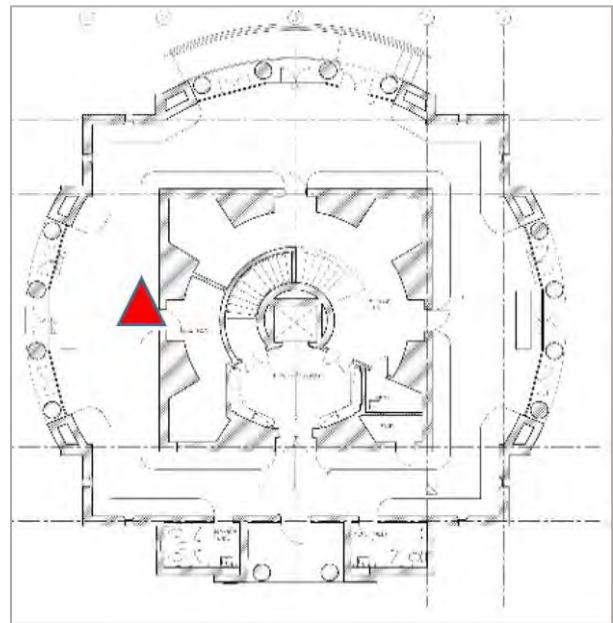


Figure 15: Moisture reading on the first-floor mural. Red triangle: > 50% = WET.

## EFFLORESCENCE AND OTHER DAMAGES

### First Floor Murals

Although the *California* mural was affected by the water leak, no efflorescence was observed. The only changes corresponded to darkening/yellowing on the surface.

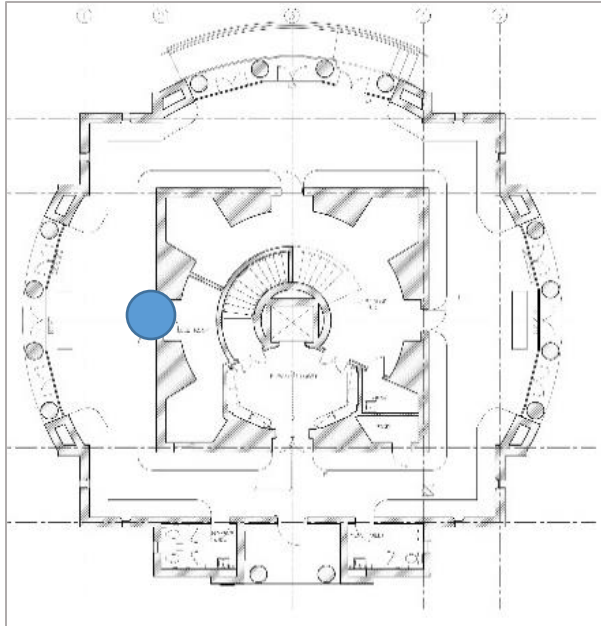


Figure 16: Location of the water damage on the *California* Mural at the first floor.

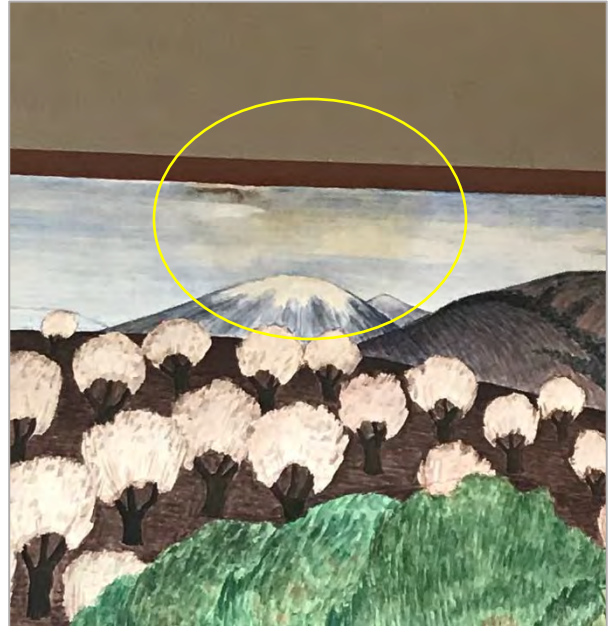


Figure 17: Detail of surface yellowing caused by water leak at the *California* mural.

### Second Floor and Stairs Murals

Salt efflorescence at the *Powell Street*, *Outdoor Living*, *Sports*, and *Hunting in California* were in general more noticeable. The most affected area continued to be the bottom of the stairs on the *Powell Street* mural's stucco frame. The ceiling on the second floor near *Outdoor Living* also appears to be holding water, where the paint is bubbling and detached.

Besides efflorescence, conservators noticed dripping white stains on the frescoes. Some of them appear to be residues coming from the wall, while other appear as a shiny film covering localized areas. Some of these glossy spots seems to coincide with areas with previous conservation treatments. Moisture content probably modified/disturbed the characteristics of the applied materials.

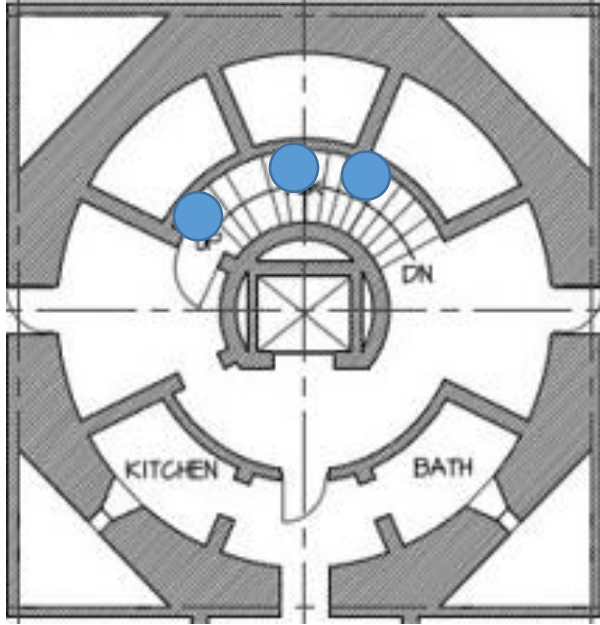


Figure 18: Blue dots shows efflorescence and other damages observed on the *Powell Street* mural located on the stairs from the first to the second floor.



Figure 19: Detail of growing efflorescence at the bottom of the *Powell Street* mural's stucco frame. Notice wall still looks wet.



Figure 20: Detail of glossy film observed on some areas of the mural.



Figure 21: Detail of glossy film and white drips on a different area of the *Powell Street* mural.



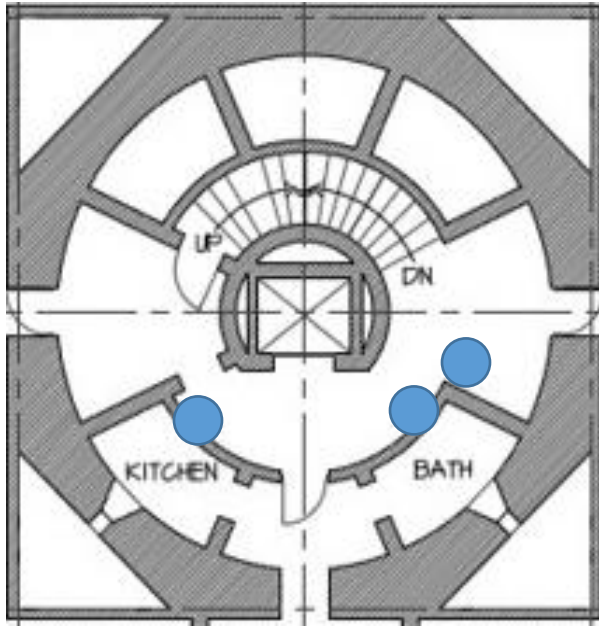


Figure 22: Blue dots shows florescence and other damages observed on the *Sports and Outdoor Life* murals located on the second floor.

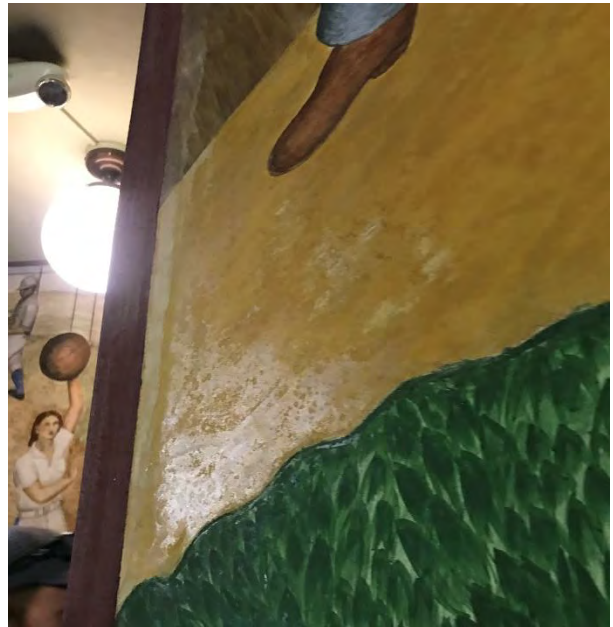


Figure 23: Detail of glossy film and efflorescence on the *Outdoor Life* mural.



Figure 24: Detail of water damage on the second-floor ceiling.

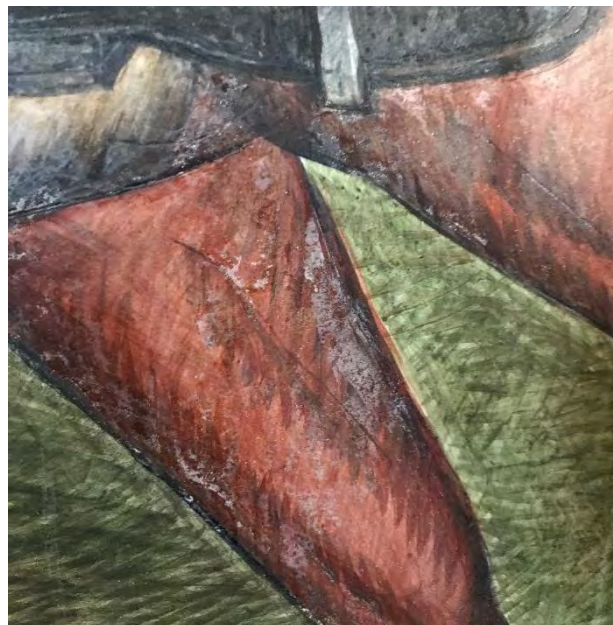


Figure 25: Detail of glossy film and efflorescence on the *Sports* mural.



## OCTOBER 5, 2020

### Moisture Content

Moisture readings were recorded with an EXTECH Pinless Moisture Meter, model M0257. These readings were taken in affected areas on the first, second, and stairwell floors of the tower.

### First Floor Murals

The *California* mural had moisture reading of 71.3% content, which is continuing a trend of drying.

### Second Floor Murals

Moisture readings varied from 38.4 % - 61.1%. Measurements over 50% are considered "WET". Between 25-50% are considered RISK.

### Stairs

Moisture content at the bottom of the stairs near the elevator lobby had readings that ranged 38.5% - 85.0%

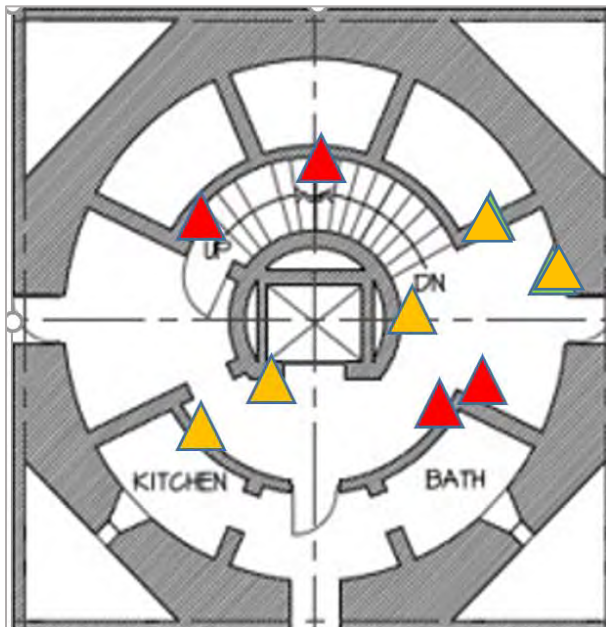


Figure 26: Moisture readings at the stairs and second floor murals. Although readings showed the walls drying out, the overall ranges stayed the same. Triangles show moisture content. Orange: 25% - 50% = RISK. Red: > 50% = WET.

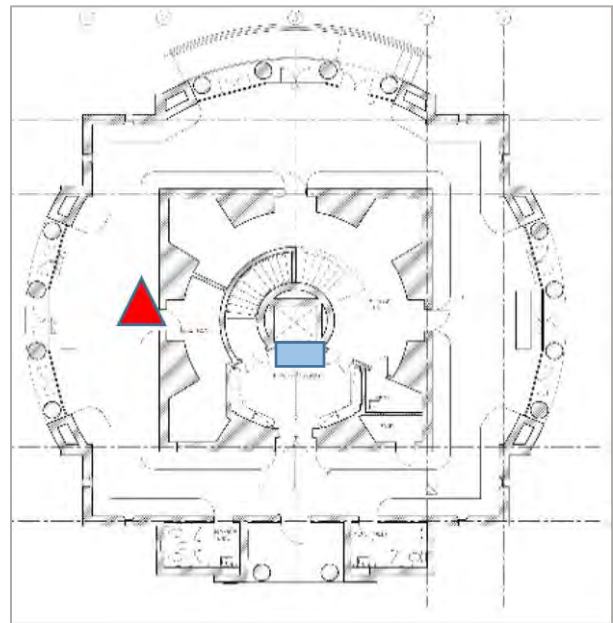


Figure 27: Moisture reading on the first-floor mural. Red triangle: > 50% = WET. Blue rectangle shows location of pooling water under elevator.

## EFFLORESCENCE AND OTHER DAMAGES

### First Floor Murals

The *California* mural continued to dry slowly. Surface yellowing was still present, but the color had slightly faded.

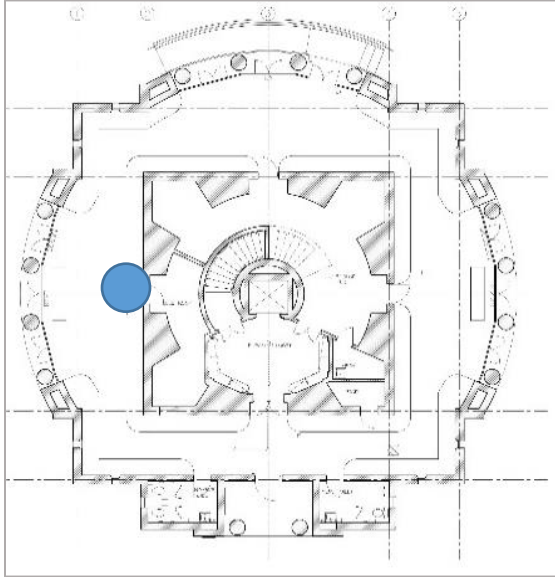


Figure 28: Location of the water damage on the *California* Mural at the first floor.

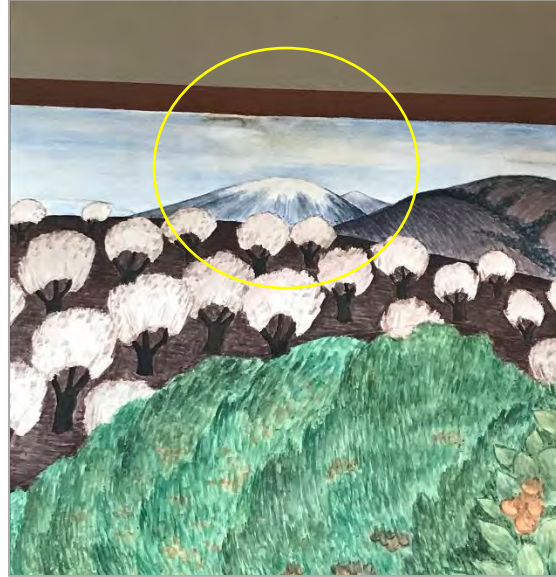


Figure 29: Surface yellowish had slightly faded away. Darker brown spot still remains.

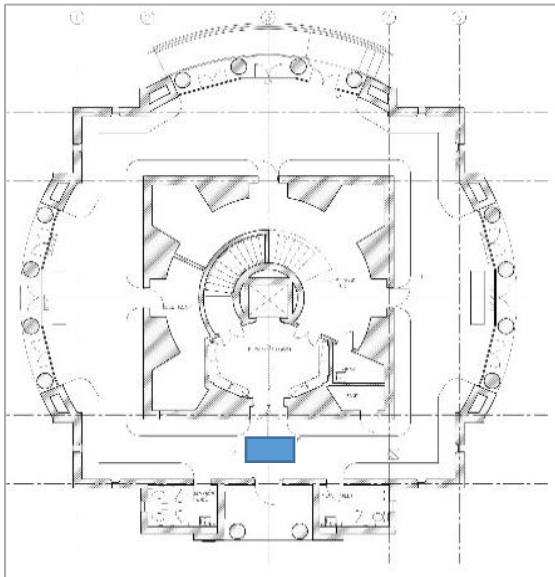


Figure 30: Water collected under the elevator is creating a continuous source or moisture for the surrounding walls increasing the risk for more damage on the frescoes.



Figure 31: Detail of the accumulated water under the first-floor elevator. Arrow shows water level going up to the top of the elevator floor, which means that probably hundreds of gallons of water are currently contained in that area.



## Second Floor and Stairs Murals

Salt efflorescence at the *Powell Street, Outdoor Living, Sports, and Hunting in California* were in general more noticeable and whiter. The most affected area continued to be the bottom of the stairs on the Powell Street mural's stucco frame. New areas of efflorescence appeared at the bottom of the stairs and around the elevator door on the second floor. White drip stains and glossy film looking areas appeared more conspicuous.

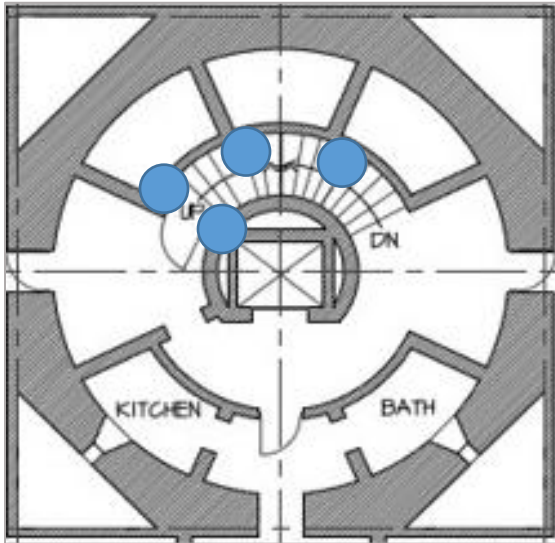


Figure 32: Location of observed efflorescence and other damages on the *Powell Street* mural.



Figure 33: Detail of glossy film and white stains (possible efflorescence) on the *Powell Street* mural.



Figure 34: Detail of growing efflorescence at the bottom of the stairs on the frame surrounding the *Powell Street* mural.

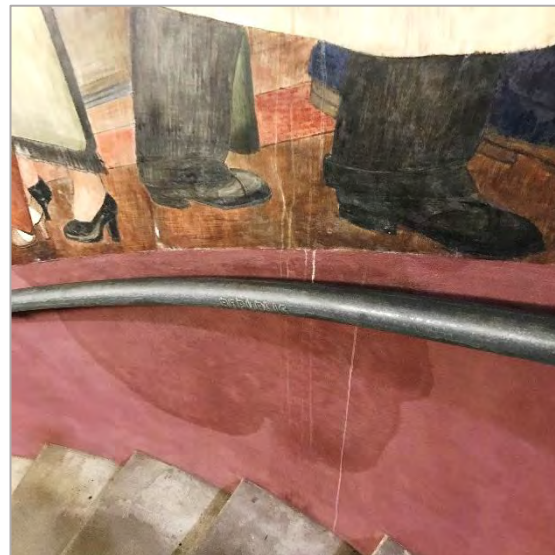


Figure 35: Detail of white drip and water stains on the *Powell Street* mural.

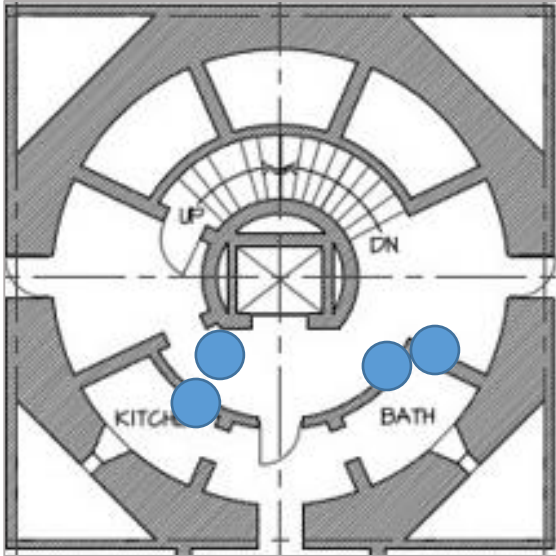


Figure 36: Location of florescence observed on the *Sports, Outdoor Life, and Hunting in California* murals located on the second floor



Figure 37: New white stain spotted, probably efflorescence, on the *Outdoor Life* mural.



Figure 38: Detail of vertical stains, probably efflorescence, on the *Outdoor Life* mural. They appeared whiter and thicker in comparison to previous observations.



Figure 39: Efflorescence were starting to appear at the bottom of the frame of the *Outdoor Life* mural.



## OCTOBER 9, 2020

### Moisture Content

Moisture readings were recorded with an EXTECH Pinless Moisture Meter, model M0257. These readings were taken in affected areas on the first, second, and stairwell floors of the tower.

### First Floor Murals

The *California* mural had moisture reading of 64.3% content, which is continuing a trend of drying.

### Second Floor Murals

Moisture readings varied from 33.3 % - 47.3%. Measurements over 50% are considered "WET". Between 25-50% are considered RISK.

### Stairs

Moisture content at the bottom of the stairs near the elevator lobby had readings that ranged 38.5% - 67.7%

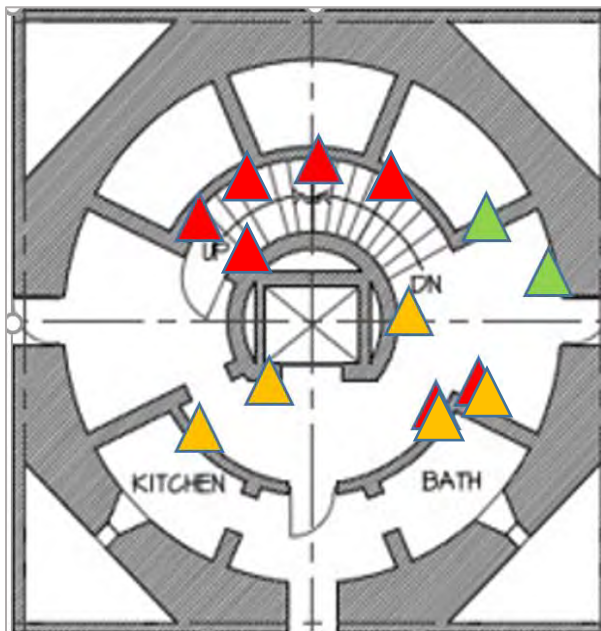


Figure 40: Moisture readings at the stairs and second floor murals. Although readings showed the walls drying out, the overall ranges stayed the same. Triangles show moisture content. Orange: 25% - 50% = RISK. Red: > 50% = WET.

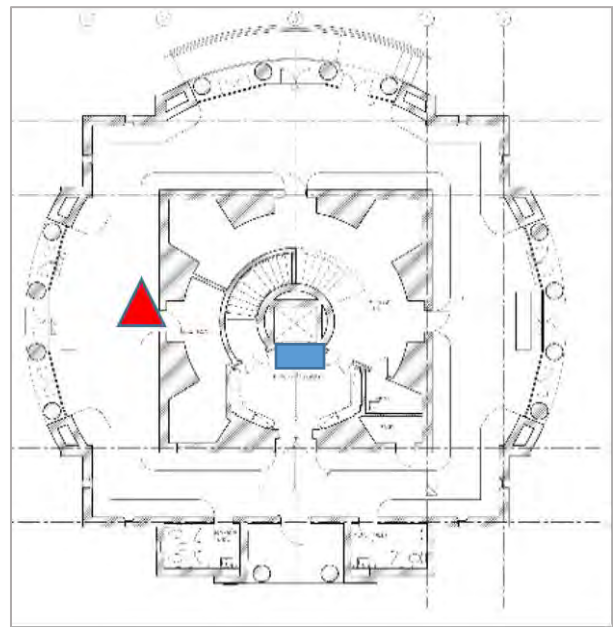


Figure 41: Moisture reading on the first-floor mural. Red triangle: > 50% = WET. Blue rectangle shows location of pooling water under elevator.

## EFFLORESCENCE AND OTHER DAMAGES

### First Floor Murals

The *California* mural continued to dry slowly. Surface yellowing was still present, but the color had slightly faded.

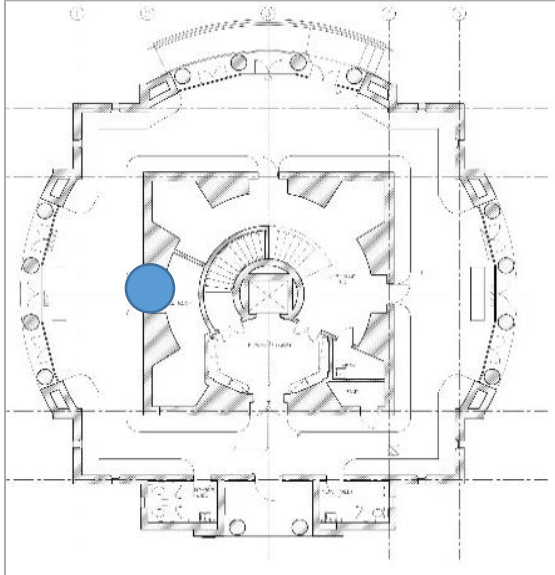


Figure 42: Location of the water damage on the *California* Mural at the first floor.

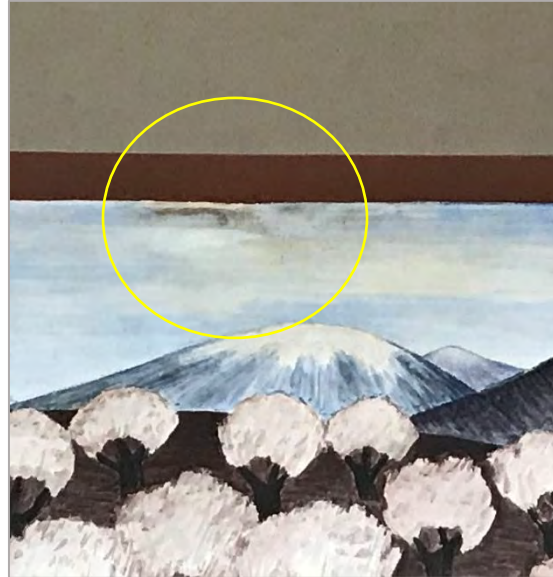


Figure 43: Yellow circle shows light yellowing and increasing of dark area, probably by biogrowth at the *California* mural.

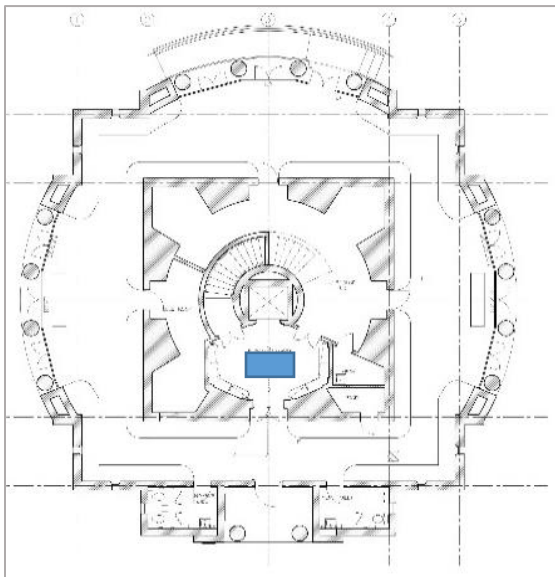


Figure 44: Blue rectangle shows location of pooling water under first floor elevator door.



Figure 45: Water level has dropped approximately 2 inches.

## Second Floor and Stairs Murals

In general, efflorescence at the *Outdoor Life, Sports, and Hunting in California* remained the same in comparison to October 5<sup>th</sup>. The stucco frame around the *Powell Street* mural exhibited larger and thicker efflorescence in comparison to last visit, along with new areas of efflorescence at the nearby locations. White drip stains and glossy film areas appeared the same as October 5<sup>th</sup>.

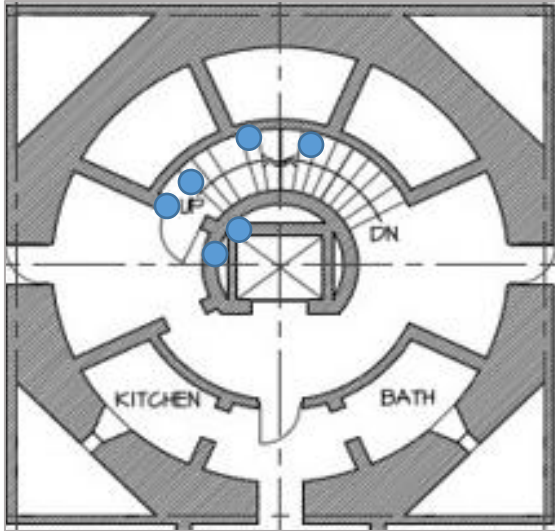


Figure 46: Location of observed efflorescence and other damages on the *Powell Street* mural.



Figure 47: Detail of growing efflorescence at the bottom of the stairs on the stucco frame surrounding the *Powell Street* mural.



Figure 48: Detail of new efflorescence at the bottom of the stairs adjacent to the first-floor elevator door.



Figure 49: Detail of observed efflorescence and other damages on the *Powell Street* mural stucco frame.



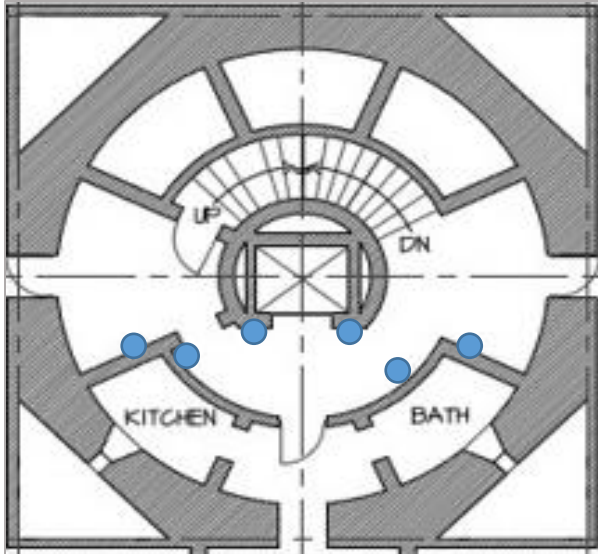


Figure 50: Location of observed efflorescence and other damages on the second-floor murals.



Figure 51: Location of observed efflorescence and other damages on the *Outdoor Life* mural.

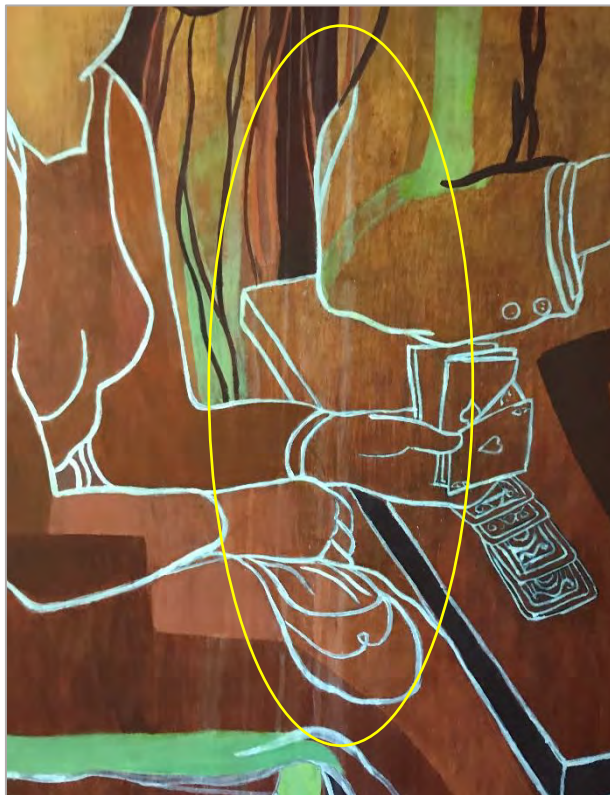


Figure 52: Location of observed water stains on one of the walls of the Berlandina Room.

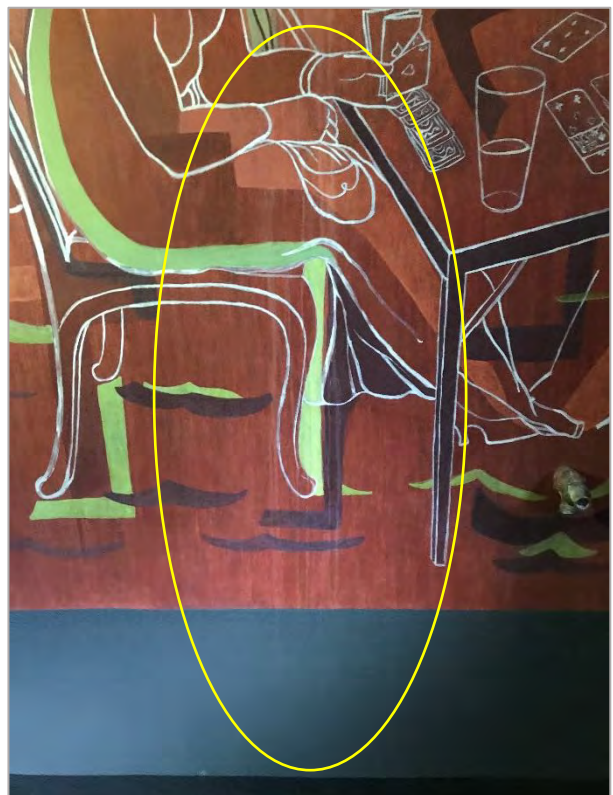


Figure 53: Another detail of the same water damage.



# OCTOBER 15, 2020

## Moisture Content

Moisture readings were recorded with an EXTECH Pinless Moisture Meter, model M0257. These readings were taken in affected areas on the first, second, and stairwell floors of the tower.

## First Floor Murals

The *California* mural had moisture reading of 45.5% content, which is continuing a trend of drying.

## Second Floor Murals

Moisture readings varied from 33.2 % - 47. 0%. Measurements between 25-50% are considered RISK.

## Stairs

Moisture content at the bottom of the stairs near the elevator lobby had readings that ranged 38.8% - 50.3%

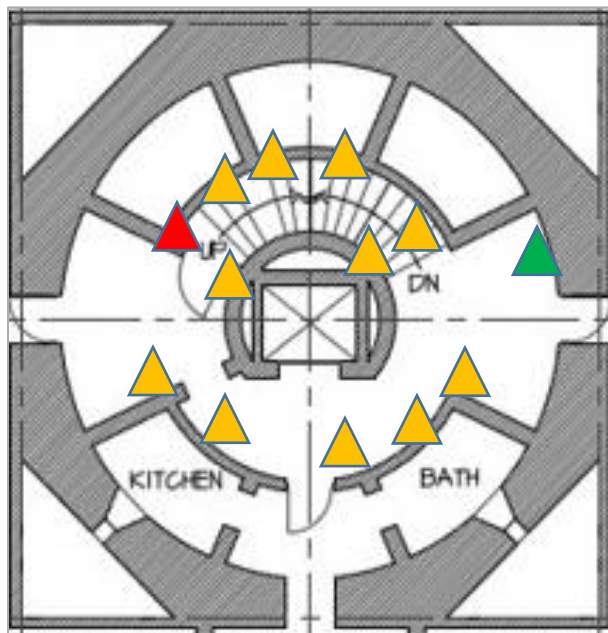


Figure 54: Moisture readings at the stairs and second floor murals. Although readings showed the walls drying out, the overall ranges stayed the same. Triangles show moisture content. Orange: 25% - 50% = RISK. Red: > 50% = WET.

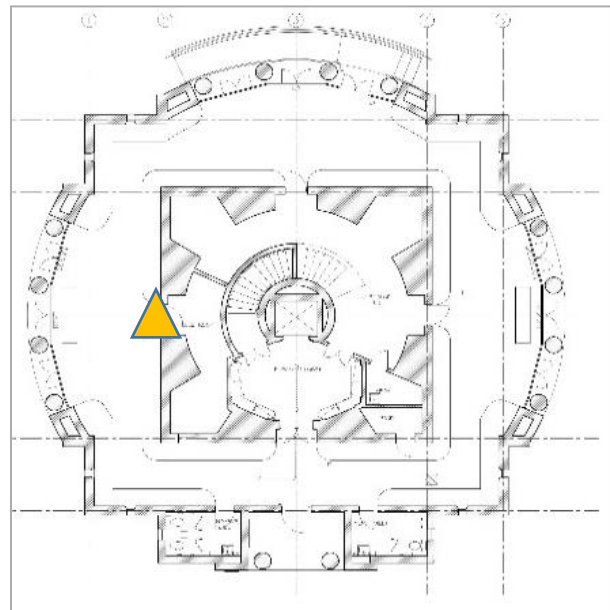


Figure 55: Moisture reading on the first-floor mural. Orange triangle: moisture between 25-50% = Risk. Water under the elevator has been drained.

## EFFLORESCENCE AND OTHER DAMAGES

### First Floor Murals

The *California* mural continued to dry slowly. Surface yellowing was still present, but the color had slightly faded. Darker area remains similar to observations from October 9<sup>th</sup>.

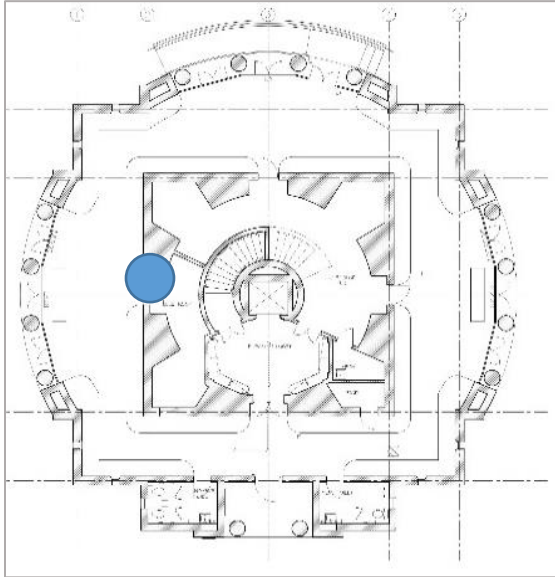


Figure 56: Location of the water damage on the *California* Mural at the first floor.



Figure 57: Yellow circle shows light yellowing and dark area, probably by biogrowth at the *California* mural.

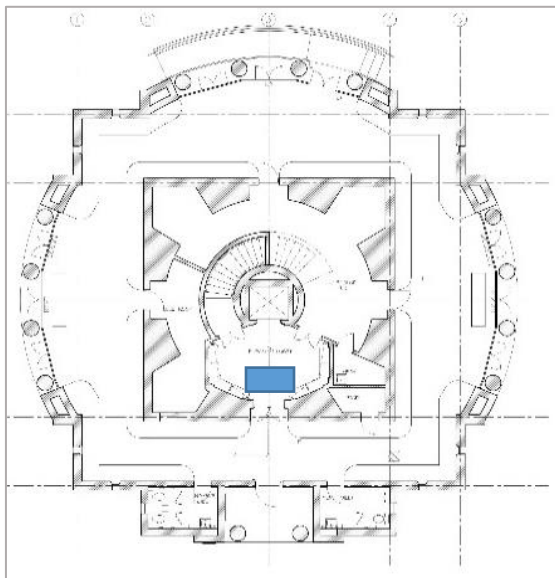


Figure 58: Blue rectangle shows location of pooling water under first floor elevator door before drainage.



Figure 59: Water has been drained. Image shows bottom surface of the elevator. No water was observed.

## Second Floor and Stairs Murals

In general, efflorescence at the *Outdoor Life, Sports, and Hunting in California* remained the same in comparison to October 5<sup>th</sup>. The stucco frame around the *Powell Street* mural continues to show thicker efflorescence in comparison to last visit. White drip stains and glossy film areas appeared the same as October 9<sup>th</sup>.

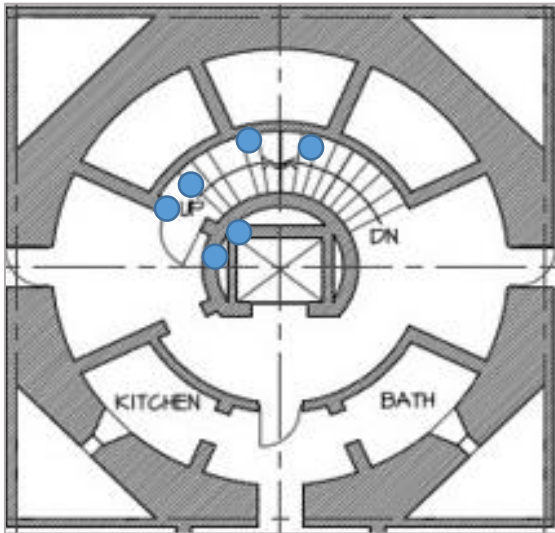


Figure 60: Location of observed efflorescence and other damages on the *Powell Street* mural.



Figure 61: Detail of growing efflorescence at the bottom of the stairs on the stucco frame surrounding the *Powell Street* mural.



Figure 62: Detail of water stains on the central lower part of the *Powell Street* mural.



Figure 63: Detail of observed efflorescence and on the *Powell Street* mural stucco frame. Notice effloresce residues accumulated on the ground.



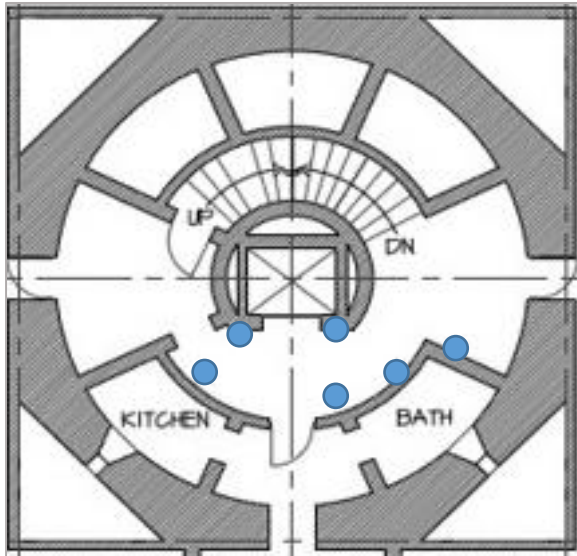


Figure 64: Location of observed efflorescence and other damages on the *Sports, Outdoor Life, and Hunting in California* mural.

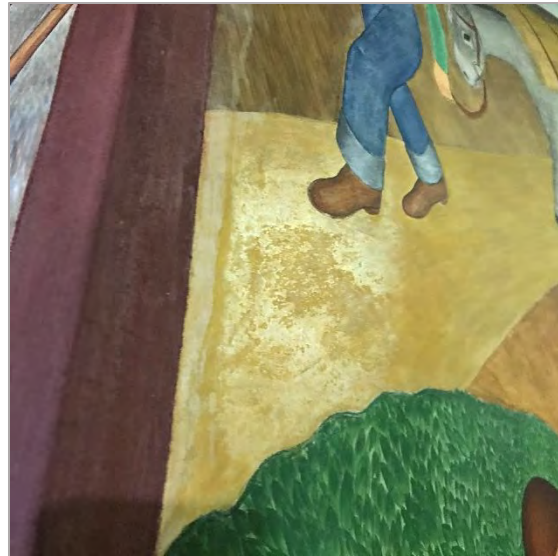


Figure 65: Location of observed efflorescence and other damages on the *Outdoor Life* mural.

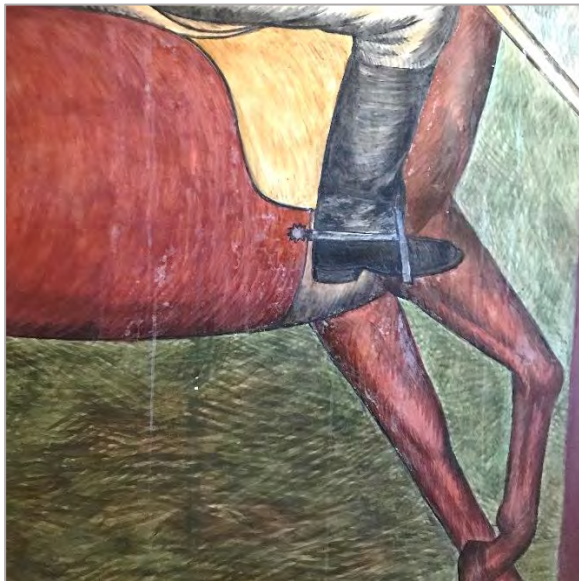


Figure 66: Location of observed water stains on the *Sports* mural.



Figure 67: Growing efflorescence on the lower right side of the *Outdoor Life* mural.



## DETAIL OF DAMAGED MURALS BEFORE AND AFTER WATER LEAK

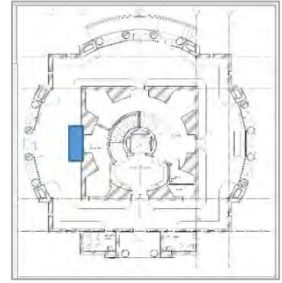
### California Mural (First Floor)



Figure 68: Detail of the central upper part of the *California* mural before water damage.



Figure 69: Same location after water leak. Red arrow shows dark stains on the fresco. Photo taken on October 9<sup>th</sup>.



## Powell Street Mural (Stairs)

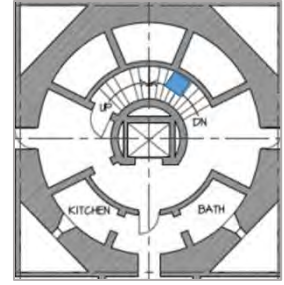


Figure 70: Detail of the central lower part of the *Powell Street* mural before water damage.



Figure 71: Detail of the same area after water leak. Photo taken on October 1<sup>st</sup>.





Figure 72: Detail of the central lower part of the *Powell Street* mural before water damage.

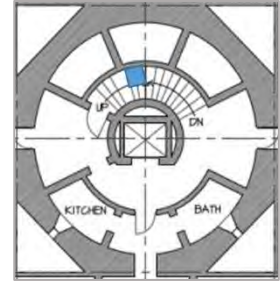


Figure 73: Detail of the central lower part of the *Powell Street* mural before water damage.



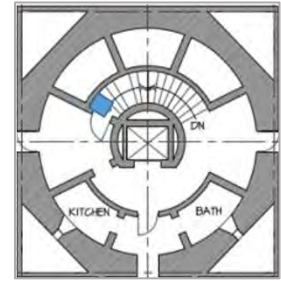


Figure 74: Detail of the central lower part of the *Powell Street* mural before water damage. Mild efflorescence in this area are common since this location always exhibits high percentage of water content in the winter.



Figure 75: Detail of the central lower part of the *Powell Street* mural before water damage. Efflorescence this time are bigger and thicker than usual, which appeared right after the water leak.

## Sports Mural (Second Floor)

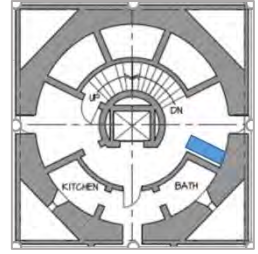


Figure 76: Detail of the central right side of the *Sports* mural before water damage.



Figure 77: Detail of the same location after water damage. Image shows efflorescence and white drip stains of the surface.

## Outdoor Life Mural (Second Floor)

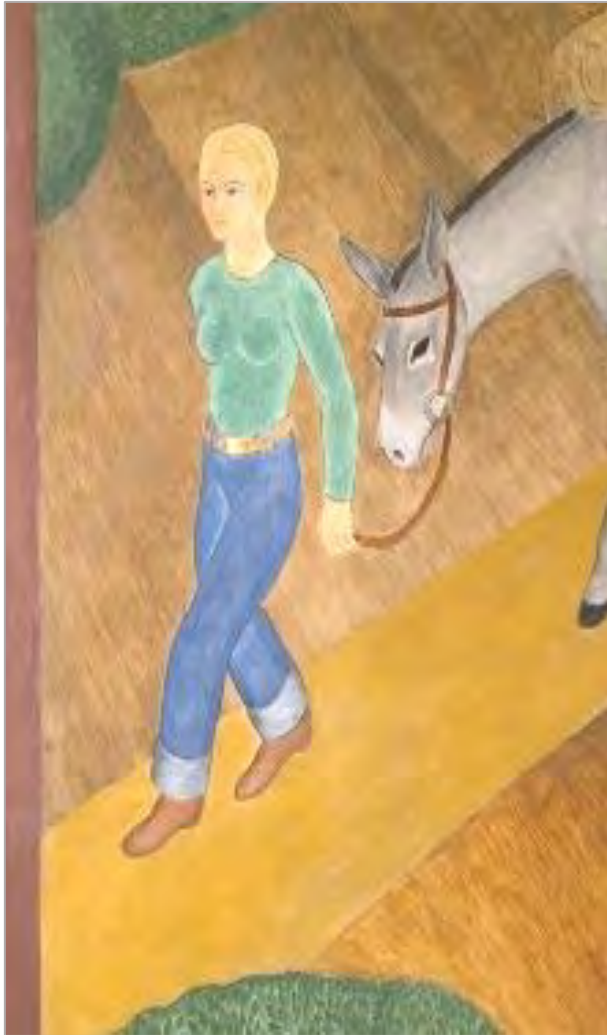
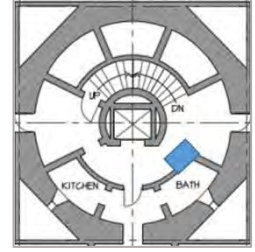


Figure 78: Detail of the central left side of the *Outdoor Life* mural before water damage.

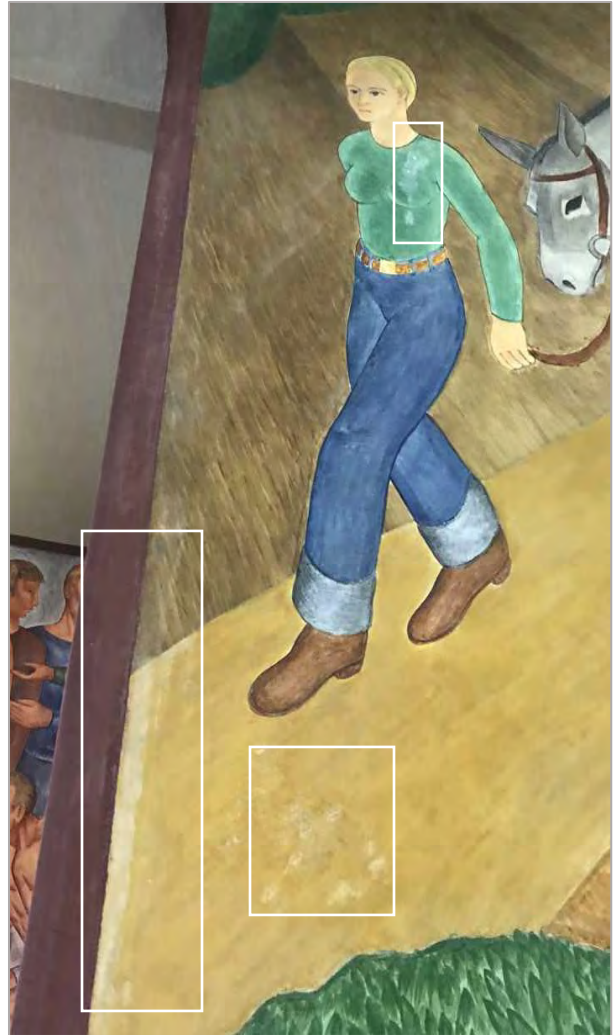


Figure 79: Detail of same location after water damage. Image shows areas with efflorescence.



## Berlandina Room (Second Floor)

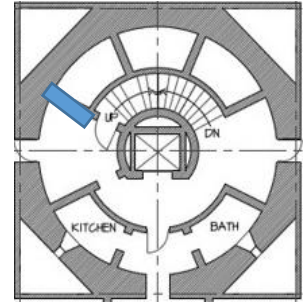


Figure 80: Detail of the *Berlandina Room* mural before water damage.

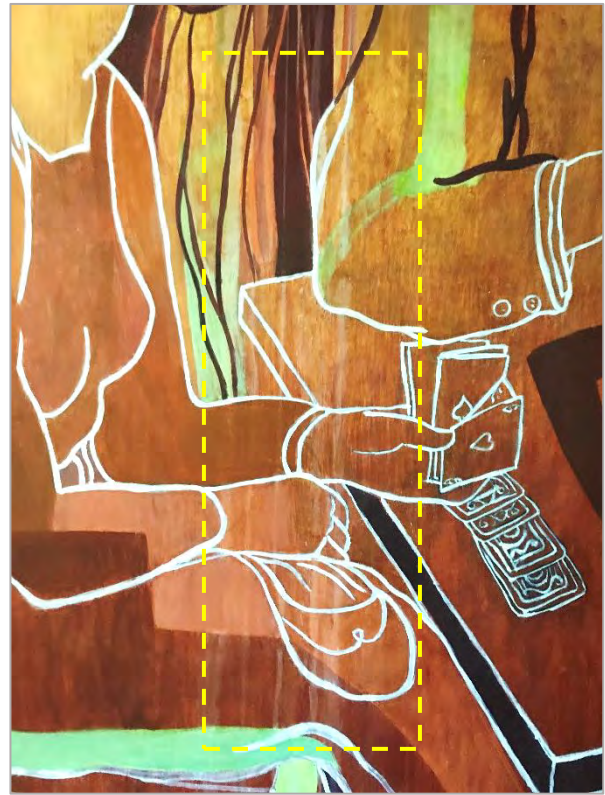
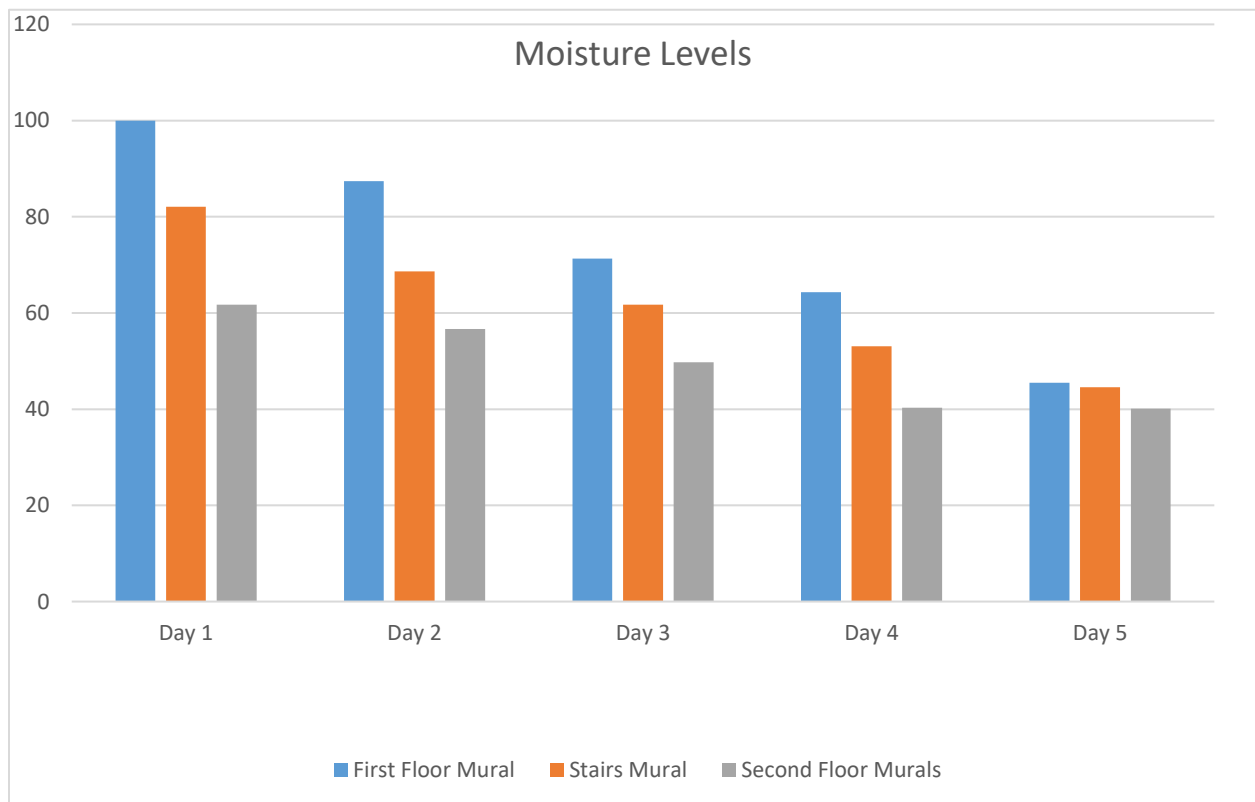


Figure 81: Detail of the same location after water leak. Conservators noticed current water stains correspond to location of water damages reported on previous treatments.

# **DATA: MOISTURE LEVELS ON FRESCOES**

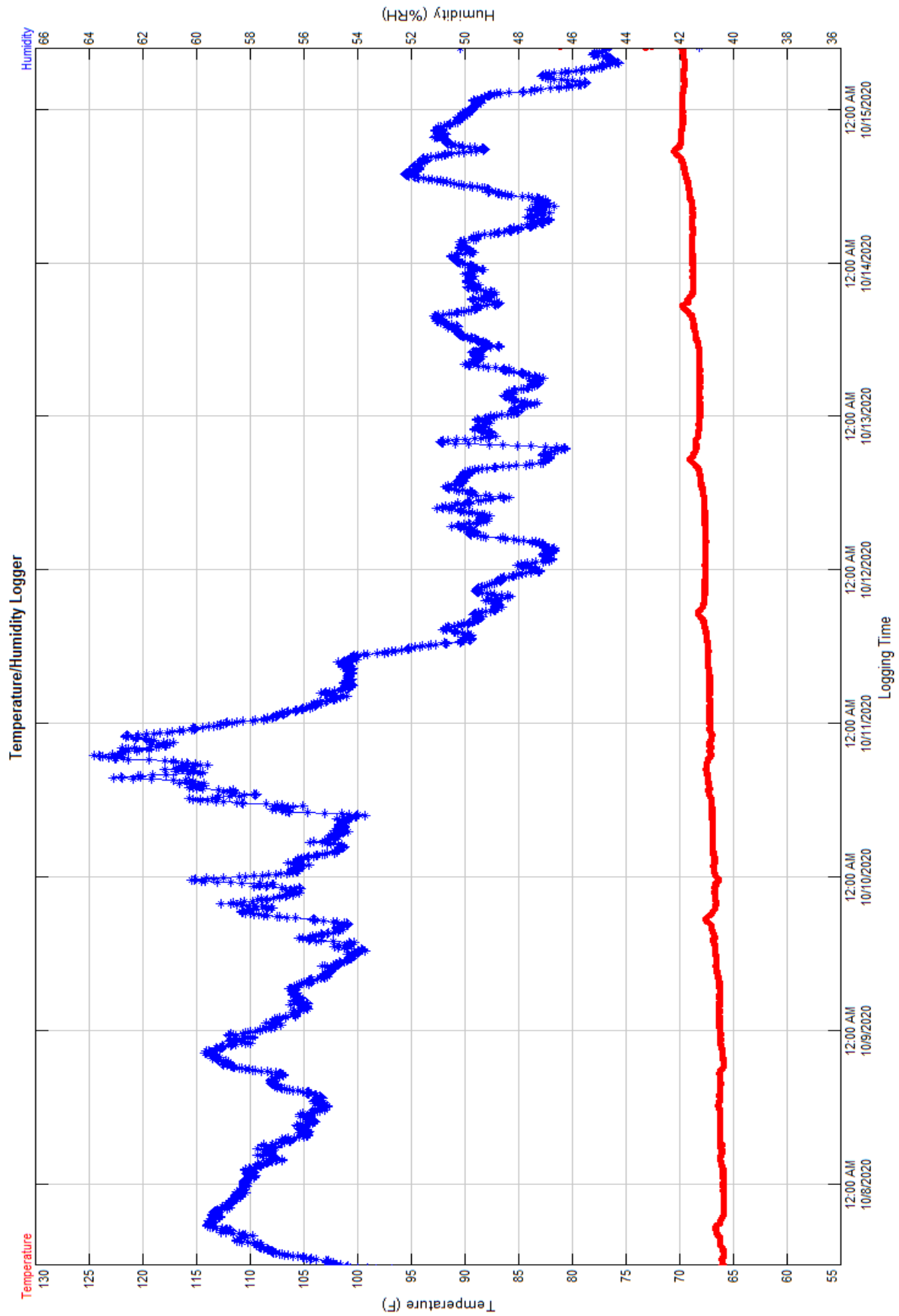
MURAL	MOISTURE LEVELS				
	Day 1: 09/28	DAY 2: 10/01	DAY 3: 10/55	DAY 4: 10/09	DAY 5; 10/15
<i>FIRST FLOOR California</i>	100%	87.4%	71.3%	64.3%	45.5%
<i>STAIRS Powell Street</i>	64.2% - 100%	52.1% - 85.2%	38.5% - 85%	38.5% - 67.7%	38.8% - 50.3%
<i>SECOND FLOOR Sports, Outdoor Life, Hunting in California</i>	53.2% - 70.2%	49.6% - 63.7%	38.4% - 61.1%	33.3% - 47.3%	33.2% - 47%

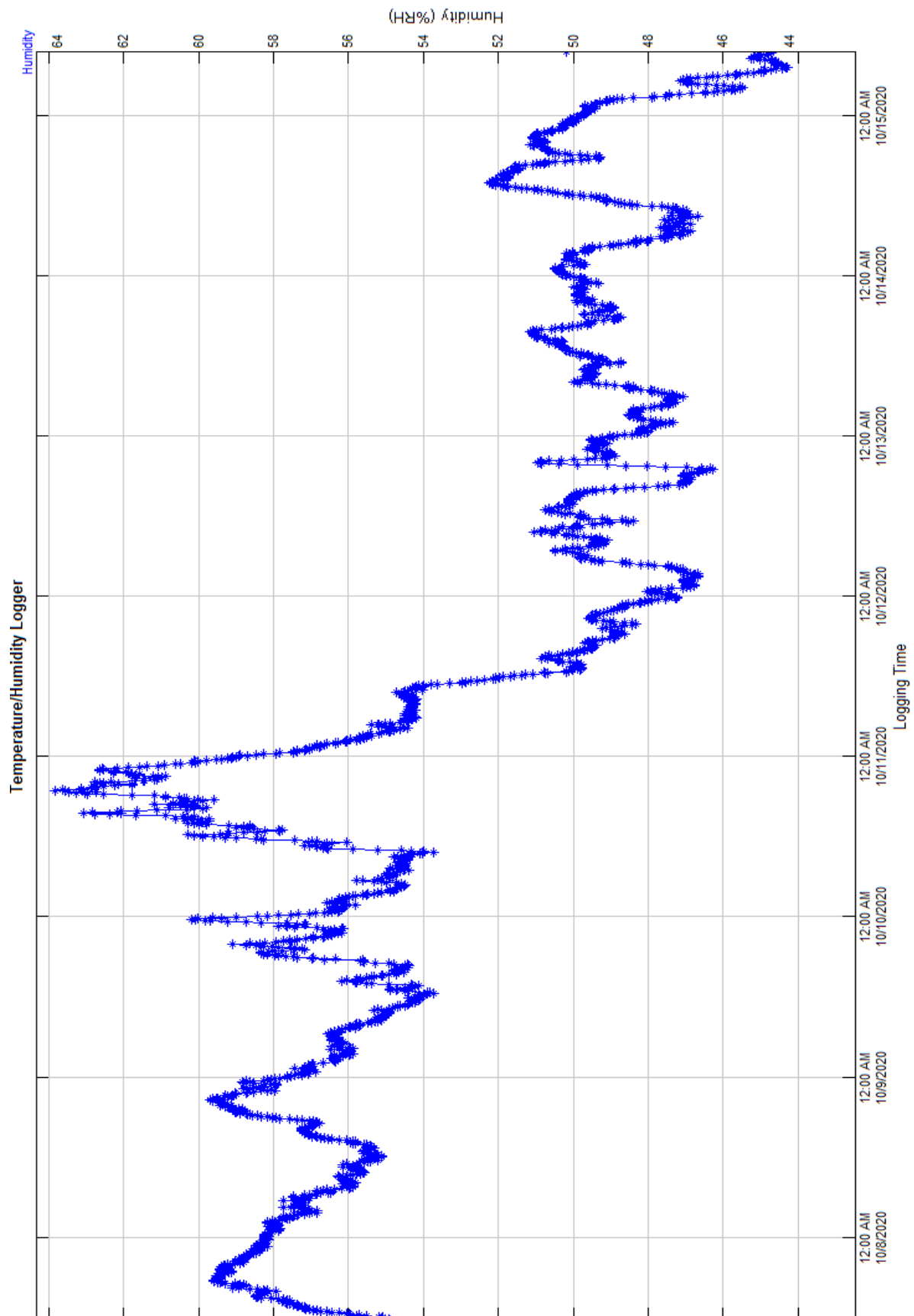


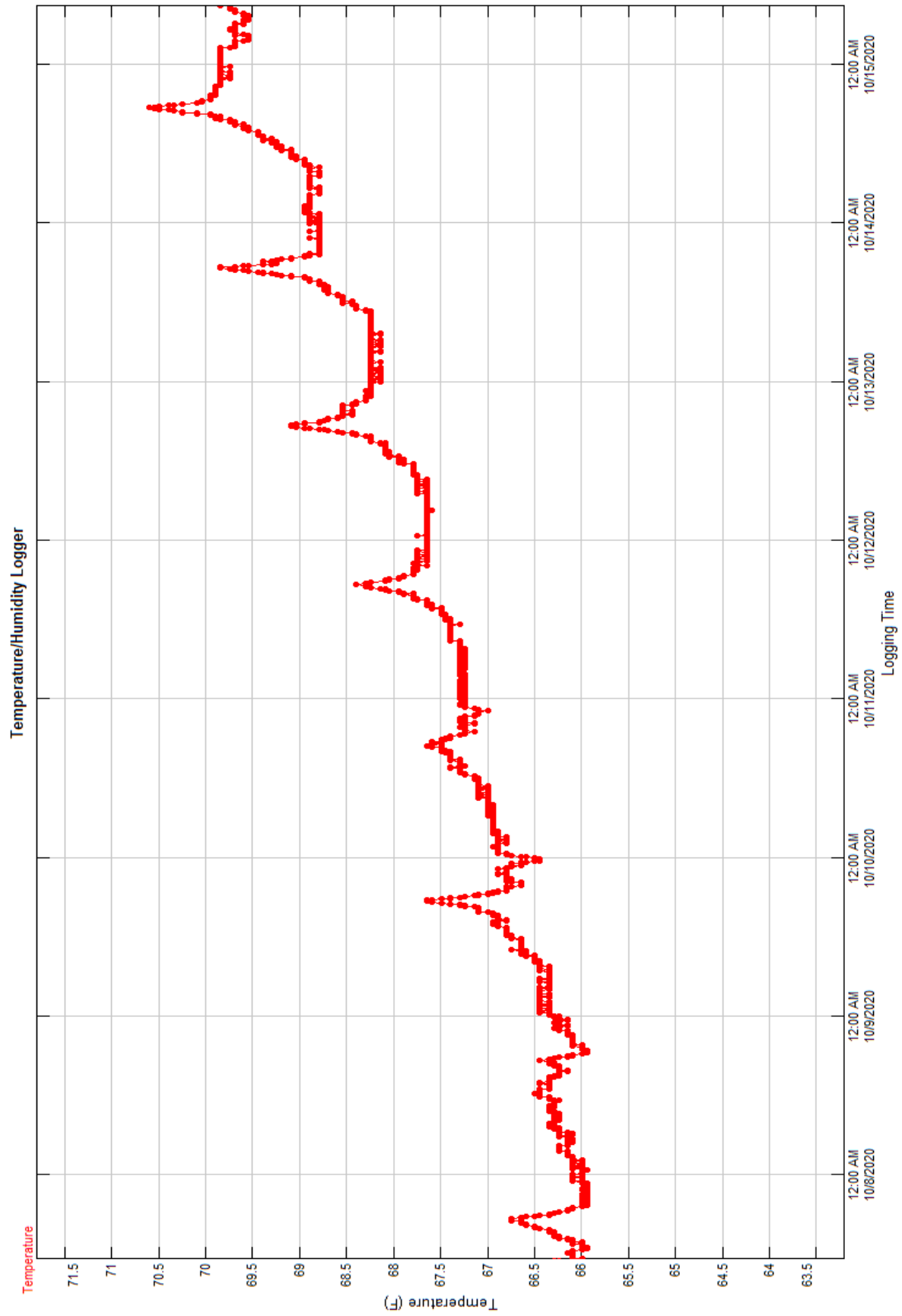
# **DATA: TEMPERAURE AND HUMIDITY**

An Omega OM-73 data logger was used to track changes in temperature and relative humidity. The logger was located at the top of the staircase on the second-floor landing where it gathered data for a period of 8 days from 10/7 to 10/15. During this time, the data logger collected sample every 5 minutes.











## RECOMMENDATIONS

- The murals are slowly drying out, and it is our understanding that the Recreation and Parks Department had added dehumidifiers to the space which has helped to reduce humidity (See humidity and temperature reading on pages 30-31). Data also shows that the percentage of water content on the wall has in general going down (See page 29). Conservators consider humidity has reached normal levels, similar to what has been recorded in the building on previous monitoring campaigns. Extending the use of dehumidifiers for longer than needed, can also propitiate unfavorable conditions for the murals.
- ARG/CS recommends performing conservation treatments on the affected murals to remove efflorescence and address damaged areas with previous conservation treatments. This process will require a conservator specializing in fresco conservation to create a comprehensive scope of work for the treatment.
- During any future efflorescence treatments, the plaster will need to be checked for friability. Consolidation treatments may be necessary in coordination with efflorescence removal.
- It may be necessary to remove the failed coatings that became saturated and show signs of failure (glossy and white areas). This will require testing since it may be necessary to treat an entire mural to avoid differences in surface texture and sheen.
- The stucco frames also have noticeable efflorescence that should be removed. The stucco was coated with a mineral paint coating during previous treatments and additional coatings may be required to even out the pigmentation and treat any areas that have discolored.
- We also recommend an inspection of the tanks and plumbing systems on the fifth floor. The tanks were inspected during a condition assessment of the building in 2012, but there is not a note about the plumbing connections. Given that there are multiple tanks on the fifth floor, we recommend that measures be taken to ensure that this type of leak is prevented.

Thank you,

Jennifer Correia  
Principal - ARG Conservation Services, Inc.

CC:  
Megan Carver, Project Manager  
Johana Moreno, Senior Conservator