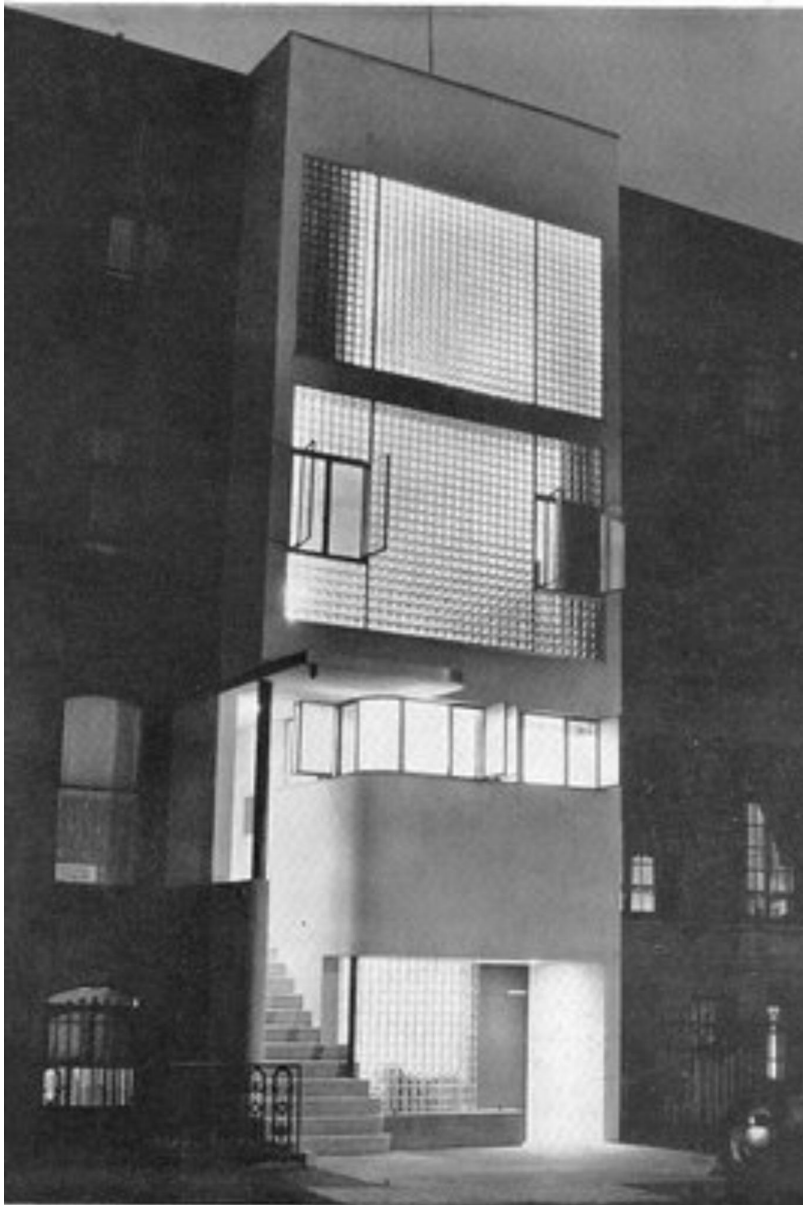


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Building Conditions Assessment  
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## Lescaze House and Studio- The first modern residence in New York City<sup>1</sup>

### Investigation and Assessment



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<sup>1</sup> As it was referred to in the LPC report at 1976.

## **Architect Background**

William Lescaze was an architect, city planner, and industrial designer born in Switzerland in 1896. He studied at the Ecole des Beaux-Arts and the Ecole Polytechnique Fédérale de Zurich until 1919. Once he completed his degree, he immigrated to the United States in 1920. One of his most prominent projects, completed in 1932, was the Philadelphia Savings Fund Society Building, now known as the Loews Philadelphia Hotel, located in Philadelphia. This building is considered by many to be the first “International Style” skyscraper in the United States. In 1934 he designed his own home, the Lescaze House, which also became his office where he established his own architecture firm, Lescaze & Associates.

## **Building Background**

### *Site Plan*

The house is located at 211 East 48th Street between Third and Second Avenue. The facade is south-facing and situated closer to Third Avenue (figure 1). East 48th Street is a multi-use street with mixed building styles. The street has a number of remaining townhouses from the nineteenth century alongside tall glass and steel skyscrapers at the corner of Third Avenue.

The Lescaze House shows a harmonious relationship with the flanking row houses by retaining their modest scale, cornice line, and window alignments. The color of the building's stucco is off-white, which contributes to its smooth blending with its surroundings. The difference between the neighboring brownstones and the Lescaze

House is more apparent at night when the glass blocks glow with light coming from within.

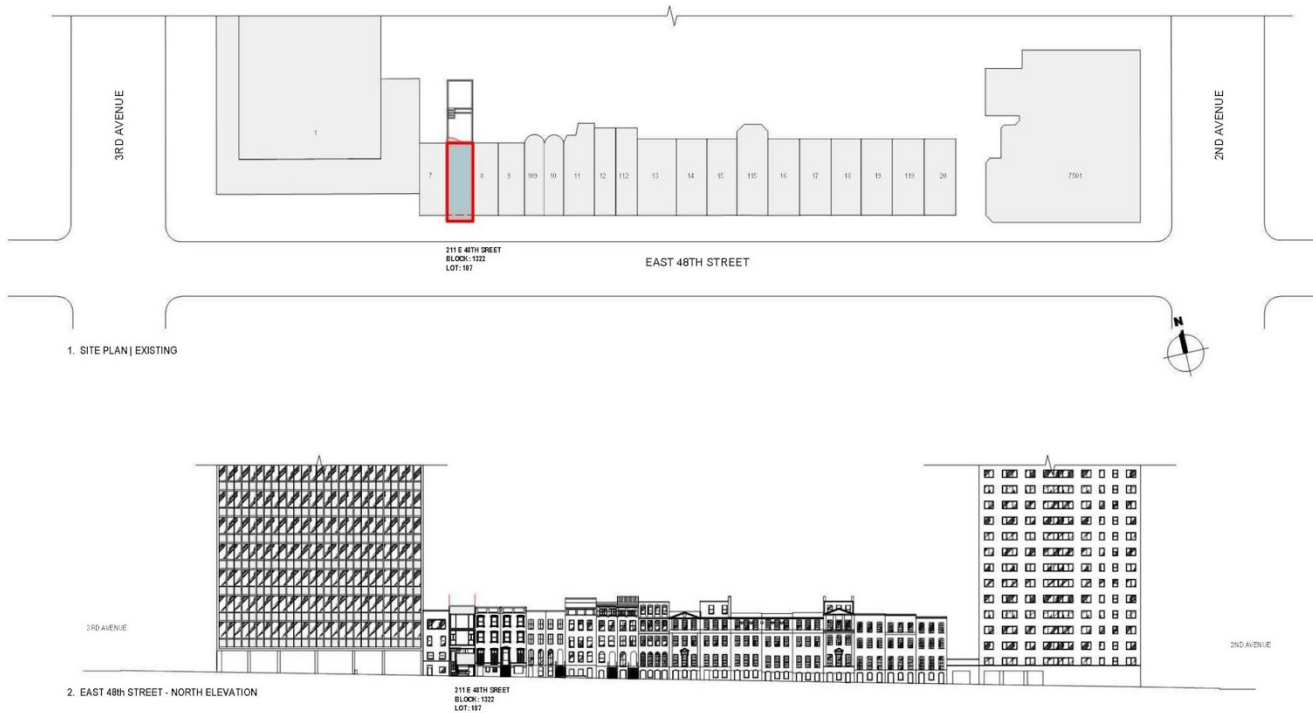


Figure 1 "Preservation Department – Item 2, LPC-21-03913 211 East 48th Street – Lescaze House,." NYC- Landmarks Preservation Commission, May 4, 2021.

### Description

The Lescaze House was designed as an integrated space for living and working. The site is a renovation of an early 19th-century brownstone townhouse (figure 2). It was coined in the “International Style” and was completed in 1934. It is a four-story building with a flat facade, horizontal windows of glass bricks, and white stucco walls. On the east side of the facade, situated a few steps below street level, lies the architectural office, shielded by a glass brick wall. On the west side, a high stoop, original to the 19th-century brownstone, leads to the private residence, meanwhile, ribbon windows accentuate the facade's curvature, illuminating the surface area. In the

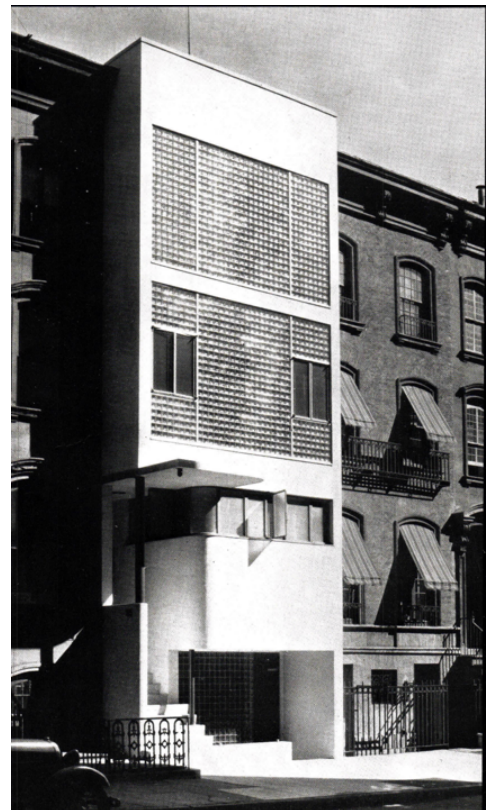
facade, there is a juxtaposition between the overall angular shape and the curved elements that soften the strict rectilinearity of the building. There is no added ornament to the facade, it is simple and purely functional serving the innovative ideals of modernism for the time (figure 3).

This house is considered one of the first buildings in New York City to use glass blocks both aesthetically and structurally. The blocks provide considerable privacy while allowing natural light to enter the spaces, their functionality prevails over their obvious aesthetic appeal. Generally, the first floor contained the dining room, the second floor had the bedrooms, and the third floor had the living room. The townhouse was officially designated as a landmark by the Landmarks Preservation Commission in 1976 and added to the National Register of Historic Places in 1980.



**BEFORE**

*Figure 2 The site before construction. Architectural Record 1934.*



*Figure 3 The Lescaze House and Studio. Architectural Record, 1934.*

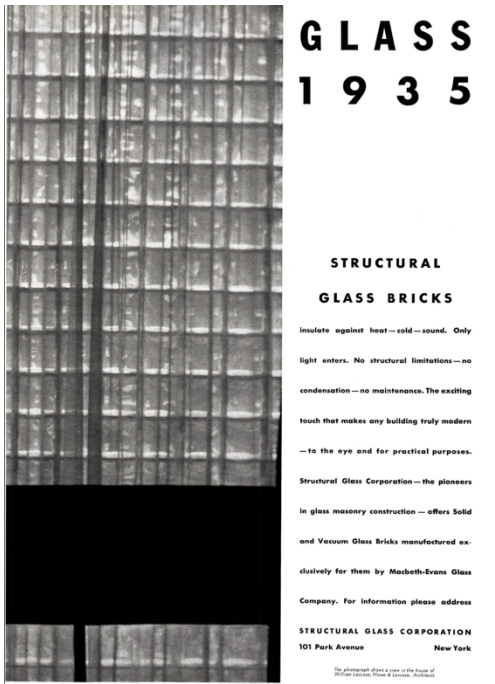
### *Materiality and Significance*

The style of this house embodies the practice of the modern movement in architecture expressing life through rational planning and Louis Sullivan's 'form following function'. According to the Landmarks Preservation Commission designation report, "the apparent simplicity of the design is the result of a sophisticated analysis of proportional relationships, while the smooth surface, crisp articulation, and deliberate avoidance of ornament is related to the design concept of the 'International Style.'<sup>2</sup> The horizontal windows on the first floor have steel frames and clear glazing. The two windows located on the second floor are single-pane steel-framed and allow for ventilation. Adding to the functionality and significance of the building, it is considered the first private residence in New York to have air conditioning. The air conditioning was originally located in the back half of the residence, for the bedrooms. This explains why there are no operable windows located in the back of the residence and why there are two operable windows seen on the front facade to allow for ventilation. The most notable material throughout this residence is glass (figure 5). Lescaze utilized hollow glass blocks in the bedroom and living areas for insulation, privacy, and noise reduction. Clear glass was employed in the kitchen and rear sections for transparency. Solid glass bricks were strategically placed, such as in the terrace paving and over office spaces, maximizing strength where needed most. The glass blocks measure 5 by 5 inches across and 2.5 inches thick and were manufactured by the Macbeth-Evans Glass Company. The earliest use of the hollow glass block in America has been cited by many to The Owens-Illinois Glass Block Building at the Chicago Century of Progress Exhibition from 1933

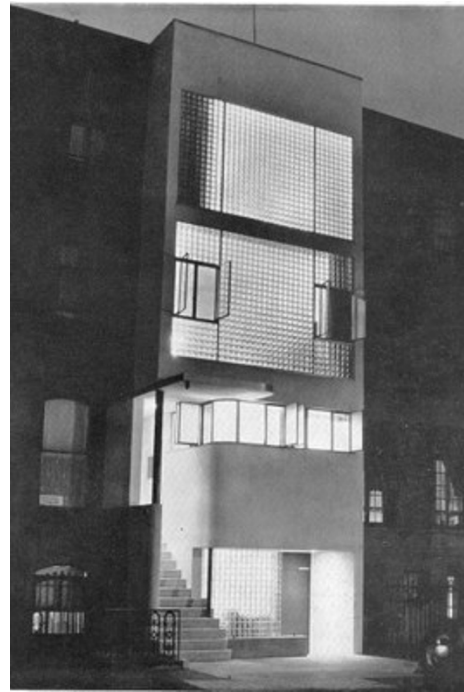
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<sup>2</sup>Ellen Kramer, "The Lescaze House" (Landmarks Preservation Commission, LP-0898, January 27, 1976).

and the Lescaze House. This usage of glass blocks as a structural building material was so revolutionary that in December 1934 the Macbeth-Evans Company published an advertisement featuring the Lescaze House in Architectural Forum (figure 4).



*Figure 5* Ad for structural glass brick. Architectural Forum, 1934.



*Figure 4* The Lescaze House and Office at night. Lescaze, 1978 LPC.

## Archival Documents

Below, we have summarized the documents we have found thus far, organized chronologically for clarity:

- Original Sketch (1928): We've located an original sketch (figure 7) by the architect dating back to 1928, five years prior to the construction of the building. This sketch offers valuable insights into the foundational design concepts and key features essential to the building's aesthetic integrity.
- Facade Blueprint (1933): Our search yielded a blueprint of the facade from 1933 (figure 6), the year construction commenced. This document provides important

details about the initial plans and structural elements envisioned during the building's inception.

- A magazine article (1934) from *The Architectural Forum* titled “House of William Lescaze, New York.” In the same magazine, we also found an ad for glass blocks featuring the Lescaze House and Studio (figure 9).
- Tax Photo (1940): a Tax Photo from 1940 (figure 8) offering a visual snapshot of the building's appearance and surroundings during that period.
- National Registration Documents (1980): The documents collected during the National Registration in 1980 are particularly informative. These records, especially regarding the shoe foam in the base of the steel column, significantly contribute to our understanding of the building's history and evolution.
- LPC Proposal Drawings (2021): We've obtained drawings from a proposal submitted to the Landmarks Preservation Commission (LPC) in 2021. These drawings, presented by the Turett Collaborative, outline proposed alterations to the building. While we're still investigating the status of this proposal, the 2021 presentation plans will be invaluable for assessing the current condition of the building's facade (figure 1).

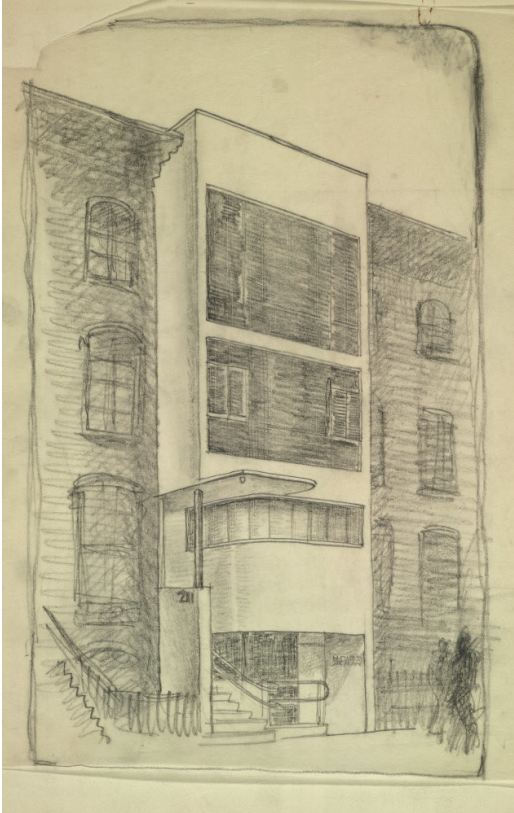


Figure 7 Sketch of the Lescaze House and Office. William Lescaze, 1928.

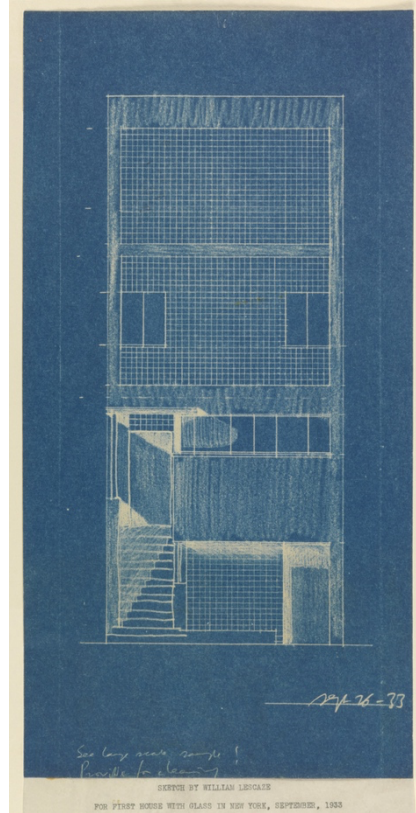


Figure 6 Sketch by William Lescaze for First House with Glass in New York. September, 1933, Cooper Hewitt.



Figure 8 Lescaze House, NYC Tax Photo, 1940.

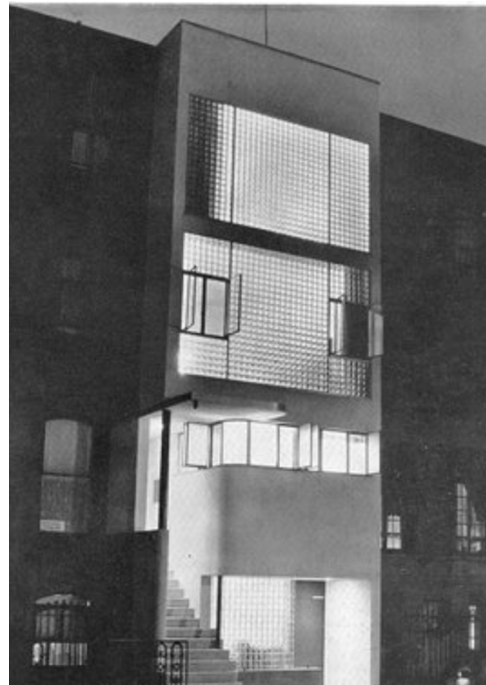


Figure 9 The Lescaze House and Office at Night, Lescaze, 1978 LPC.



## Observations

On January 31, 2024, we conducted an initial visual assessment of the facade of the Lescaze House and Studio. Findings were documented in photographs and field notes. Additionally, on February 18, 2024, we conducted an additional on-site observation, which included documentation and the collection of color samples from the blue steel column. A summary of our observations and assessment of the current condition of the exterior is presented below.

### Vacant Status:

- Currently, the building is vacant. A brief conversation with an employee from a nearby building confirmed that this state has persisted for a while. There is plywood covering the windows of the third floor and the English basement from the inside.

### Alterations:

- On the English basement level, there is a partial covering of glass blocks from outside with cardboard glued by duct tape (figure 18).

### Fixtures:

- Some gray cement patches on the walls and ceiling of the English basement level.
- Exposed security camera on the English basement (figure 17).
- Exposed electrical wiring coming out of the ceiling next to the security camera and by the main door (figure 17).
- Peeled building number signage at the east end of the building (figure 16).
- Missing hardware: door knob from the gate, lighting fixtures from above the office door, and above the main house door (figure 15).

### Foam:

- On the base of the steel column on the east side of the main stairs leading to the house, there is a protective shoe foam in a state of heavy deterioration, much of the foam is missing, and its texture is crumbly (figure 14).

### Steel:

- Heavy peeling of paint and heavy corrosion were observed on the following steel elements: columns, gate, window trim, and on the steel frame of the glass block on the English basement level. This problem is highly probable on the frames of

the glass blocks on the upper levels as well, but due to accessibility, we could not observe those (figure 10) (figure 11) (figure 12) (figure 13).

**Mortar:**

- The mortar joints between the glass blocks are very thin. On the English basement level, where we could access it, much of the mortar is damaged, and some of it is missing (figure 23).

**Stucco:**

- There are many stains on the building (figure 22).
- There are many cracks in the stucco, mainly around the steel elements. The most severe cracking was observed in the canopy above the main entrance, by the gate, around the trims of the glass elements, and between the third and fourth floors on the west end of the building (figure 21).

**Glass:**

- All exposed glass blocks are in place, but many of them are chipped or broken (figure 20) (figure 23).

**Concrete:**

- A crack in the concrete floor by the entrance to the English basement and a crack on the top stair to the main entrance (figure 19).



Figure 18 Alterations



Figure 17 Fixtures\_a



Figure 16 Fixtures\_b



Figure 15 Fixtures\_c



Figure 14 Foam



Figure 13 Steel\_a



Figure 12 Steel\_b



Figure 11 Steel\_c



Figure 10 Steel\_d



Figure 23 Mortar



Figure 22 Stucco\_a



Figure 21 Stucco\_b



Figure 20 Cracked Glass



Figure 19 Concrete

**Discussion**

Unfortunately, the condition of the building's facade is severe; it is evident that the building has been neglected for some years. The current condition is problematic for the integrity of this original and protected early modern design, as a central element of it is neatness.

Many of the problems we were able to recognize are correlated, meaning the formation or development of one worsens the situation of others. This phenomenon is most notable in the glass block wall of the English basement level. There, we have an interaction of three elements: the glass blocks, the mortar joints, and the steel frame. Like in many steel elements in this building, paint came off the steel causing it to rust. The rust jacking puts pressure on the glass and mortar as it limits its space and decreases its ability for movement that occurs naturally with weathering. Adding to this stress is the mortar that seems to be hard and was applied in very thin joints. These factors negatively affect each other as well as the glass blocks, the crown jewel of the house, causing many of them to crack and break. This relationship can be seen in (figure 13) (figure 20) (figure 23).

Rust jacking has also significantly influenced the stucco, where we can see that the areas by the steel elements such as the columns, the gate, or the window frames are suffering from more cracks and stains, probably due to the corrosion and expansion that leads to increased pressure on the stucco (figure 21) (figure 22).

Regarding the shoe foam on the base of the column, we could not find any documentation of this element before the proposal to the LPS from 2021. We assume that this element is there to protect the base of the post from corroding. Therefore, if

careful treatment and ongoing maintenance are given to the steel column, the foam may be unnecessary.

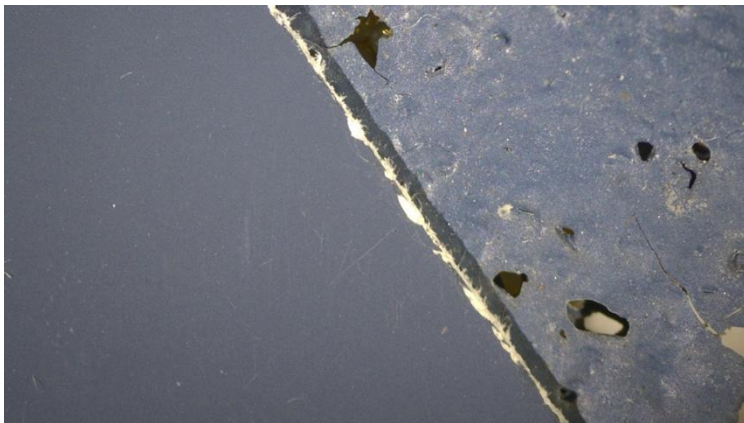
The state of rust is severe in all exposed steel elements. This condition likely occurs due to a lack of maintenance, which would include priming the steel and repainting it.

Additionally, in some spots like the ends of columns or the joints of the gate, it seems like the primer and paint were not applied to the problematic parts that are harder to reach, leading to severe corrosion. Due to this condition, we could easily pick a small sample of the peeling paint and conduct a further study on it (figure 14). On February 22, 2024, we examined the sample in the Historic Preservation Lab and were able to find its match in the Munsell Book of Color and in the Benjamin Moore catalog.

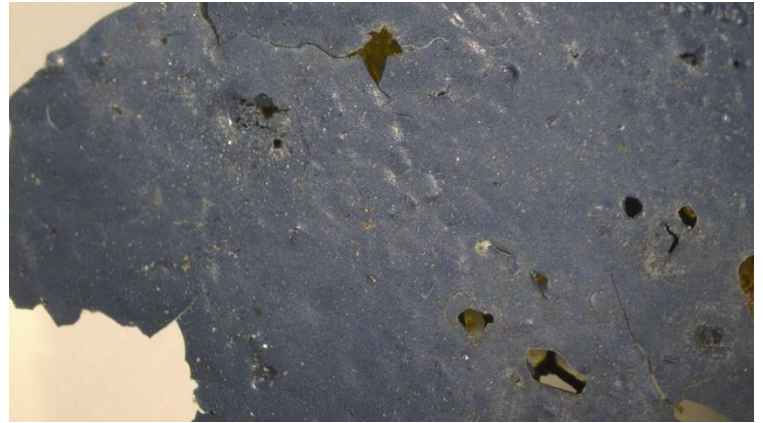
- In the Munsell Book of Color the match is: Hue- 10B, Value- 3, Chroma- 2 (figure 24).

- In Benjamin Moore the match was: Gentleman's Grey 2062-20.

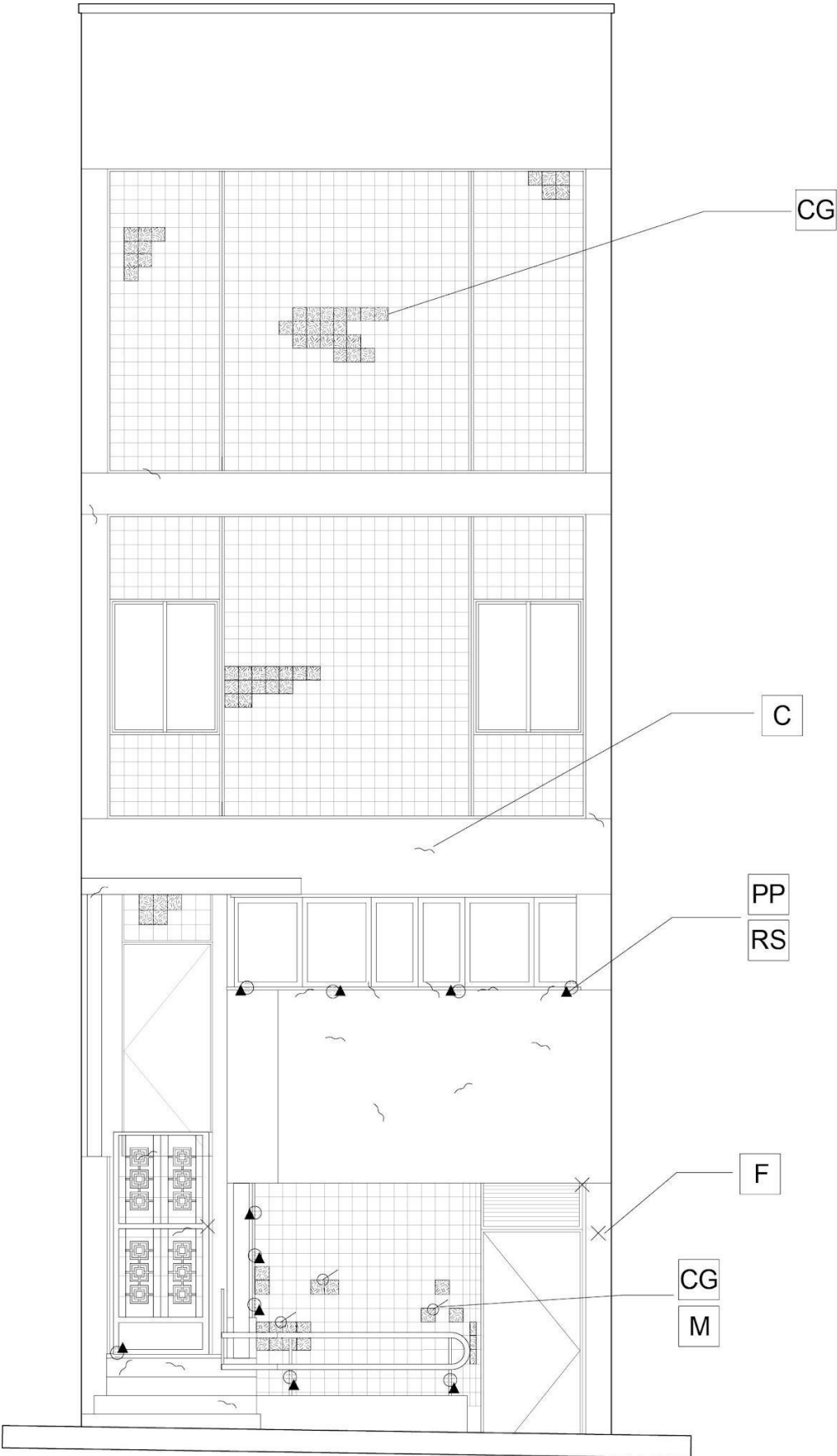
The matches could support further work on the color of the steel elements.









*Figure 25 Paint Sample\_a*



*Figure 24 Paint Sample\_b*



-  RS Rusting Steel
-  M Mortar
-  CG Cracked Glass
-  C Crack
-  F Fixtures
-  PP Peeling Paint

## **Conclusion**

The Lescaze House and Studio stands as a unique building, representing an early innovative interpretation of modernity within 1930s American architecture.

It is somewhat surprising that, despite its national and local recognition as an important structure, it has fallen into such a severe state of neglect.

Following our analysis, we are assured that with hard, and probably expensive, work it is possible to bring it back to its glory, and we will be very pleased to see it manifest soon.

However, to avoid this state of neglect in the future, we believe that ongoing maintenance is vital for the respectful preservation of this landmark.

## **Recommendations**

To ensure we are thoroughly prepared for our next steps and recommendations, it is imperative that we continue our study of the site, its history, and relevant building technology. Additionally, revisiting the site and conducting focused documentation will be essential.

Here are some initial recommendations:

- **Structural Integrity Assessment:** In light of the observed cracking, we strongly advise engaging a professional to conduct a thorough assessment of the building's structural integrity. This assessment should not skip the glass bricks as some of them are structural and examining their structural capacity is vital. The assessment will help ensure the safety of the building and its occupants.
- **Glass Bricks and Mortar Assessment and Replacement:** Following the overall condition of the glass bricks and mortar, we recommend a meticulous brick-by-brick assessment to identify any areas of damage. Any damaged bricks should be



promptly replaced to maintain the structural integrity and aesthetic appeal of the facade. In replacing the glass, size, color, and level of opacity must be taken into account. For the mortar, after the analysis, there may be a need to consider the usage of a softer mortar that would be more allowing to material weather.

- **Concrete Replacement:** There is a broken concrete stair as well as a large crack on the concrete by the studio door. Those should be addressed with new material while keeping the original shape and texture.
- **Stain Removal:** Cleaning and removing the stains on the stucco and concrete surfaces will significantly enhance the appearance of the facade. It is essential to utilize appropriate cleaning methods to preserve the original aesthetic materiality and appearance of the building.
- **Color Analysis:** Further color analysis should be performed. The off-white and blue colors are essential to the original design of the building and should be studied ahead of being reapplied.
- **Patching:** Patching the affected areas should be executed in a manner that preserves the original aesthetic of the building. Careful consideration should be given to matching materials and textures to seamlessly integrate the repairs with the existing facade.
- **Removal of Foam:** Upon further examination of archival materials and consideration of advancements in construction materials, it has been determined that the foam used at the base of the steel column serves no structural or functional purpose and is not original to the building. Therefore, we recommend its removal to maintain the authenticity of the structure.

- **Steel Treatment:** The steel elements require attention to address corrosion and deteriorated paint. We propose a comprehensive treatment plan that includes stripping the paint, removing corrosion, cleaning the steel surfaces, and repainting them to protect against future corrosion. Additionally, it may be necessary to break the concrete around the column to treat its base before reapplication.
- **Maintenance Protocol:** we strongly recommend creating a protocol that includes seasonal and annual maintenance tasks that will support the ongoing maintenance of the building. To maintain the integrity of this unique structure ongoing care must be given to it.

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