

TALIESIN WEST PRESERVATION MASTER PLAN



Prepared by

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TABLE OF CONTENTS

1.	PREFACE	2
2.	ACKNOWLEDGEMENTS	3
3.	EXECUTIVE SUMMARY	4
4.	INTRODUCTION	7
5.	METHODOLOGY	8
6.	A BRIEF HISTORY OF TALIESIN WEST	10
7.	CONSTRUCTION CHRONOLOGY	43
8.	PRESERVATION PHILOSOPHY	112
9.	SUMMARY OF PROGRAMMING INTERVIEWS	135
10.	CONDITION ASSESSMENT & EVALUATION OF INTEGRITY	141
11.	RECOMMENDED SCOPE OF WORK	357
12.	PRIORITIZATION OF WORK	532
APPENDIX		
A.	GLOSSARY	A-1
B.	HISTORIC DRAWINGS	B-1

1. PREFACE

Dear friends,

The purpose of this *Preservation Master Plan* of Frank Lloyd Wright's Taliesin West is to clearly articulate what needs to be restored and preserved, to what level and period of significance, and why. Well-considered and profoundly researched work by one of the leading preservation firms in the world, its completion represents a milestone for the Frank Lloyd Wright Foundation – the first successful effort ever to answer those critical questions and to draw up a comprehensive plan to restore one of the greatest of Wright's buildings and one of the most important examples of modern architecture.

Preservation is paramount. In any preservation project, both interpretation and use of the site are important considerations. Preservation, interpretation, and use need to be thoughtfully integrated. Also needed is a clear approach to that integration – direction about which of the three has priority when there are conflicting needs. For a site as architecturally, historically, and culturally important as Taliesin West, we've been clear from the beginning that preservation is paramount; use and interpretation will follow preservation.

The Foundation will always want the public to have access to, and be inspired by, Taliesin West. Likewise, we will always want to harness the inspiration and impact of living, learning, exploring, and creating as part of a residential Taliesin Community. That said, both our public interpretation and our residential/educational offerings will evolve repeatedly in the decades to come – in order to respond to changing needs among the constituencies we exist to serve. Use, interpretation, and preservation all offer constraints. Rather than allowing the constraints of our 2015 operational activities to dictate preservation decisions, we are resolute that our use and interpretation of Taliesin West will always respect the constraints created by embracing the most thoughtful and responsible preservation possible.

Importantly, far from having a diminishing effect, deference to great preservation will make our programs and interpretation all the more meaningful. The Pulitzer Prize-winning critic Paul Goldberger wrote that “the most important thing to say about preservation, when it is really working as it should, is that it uses the past not to make us nostalgic, but to make us feel that we live in a better present, a present that has a broad reach and a great, sweeping arc, and that is not narrowly defined, but broadly defined by its connections to other eras, and its ability to embrace them in a larger, cumulative whole. Successful preservation makes time a continuum, not a series of disjointed, disconnected eras.”

This *Preservation Master Plan* reflects our deep commitment to exactly that level of successful preservation.



Sean Malone
President & CEO, Frank Lloyd Wright Foundation

2. ACKNOWLEDGEMENTS

This Preservation Master Plan would not have been possible without the help of a number of individuals that contributed through their encouraging guidance and valuable feedback. Harboe Architects would like to thank the Frank Lloyd Wright Foundation for giving us the opportunity to help them fulfill their mission and preserve Taliesin West for future generations, including first and foremost Sean Malone, President and CEO of the foundation, whose leadership and direction on this project has been immeasurable; Fred Prozzillo, Director of Preservation, whose assistance throughout the development of the master plan has been extremely valuable; as well as foundation staff members Lisa Murphy, Vice President of Finance & COO; Dottie O'Carroll, Vice President of Development & Communications; and Linda Nelson, Executive Assistant, who participated in the workshops and provided the team with assistance as we completed onsite survey work for the Preservation Master Plan.

A special thanks to the Foundation Board Preservation Committee and Taliesin West Preservation Oversight Committee members who attended the two workshops and provided valuable feedback and editing on the Preservation Master Plan. These individuals include Foundation Board Preservation Committee Chair, John Stubbs, and committee members Don Fairweather, Neil Levine, Thomas Wright, and Steve Zyalstra, as well as Taliesin West Preservation Oversight Committee members David Delong, Bill Dupont, Kathryn Smith, and Lynda Waggoner.

Harboe Architects would also like to thank everyone that provided assistance to our team as we conducted historical research. These individuals include Oskar Munoz and Margo Stipe from the Taliesin West Archives & Collections; Elizabeth Dawsari, Librarian at the William Wesley Peters Library and Taliesin Architects Archives; and Janet Parks, Curator of Drawings and Archives at the Avery Architectural and Fine Arts Library at Columbia University.

Additionally, we would like to thank all of the user groups that participated in the programming interviews including members of the Frank Lloyd Wright Foundation administrative staff, faculty and students of the Frank Lloyd Wright School of Architecture, staff members and volunteers from tours and visitor services.

And finally, the completion of the Preservation Master Plan could not have been possible without the help of a select group of the Taliesin Fellows, who lived and worked at Taliesin West under the direction of Frank Lloyd Wright and Olgivanna Lloyd Wright. Their memories and historic accounts of the buildings and life at Taliesin West were invaluable. The following Fellows were kind enough to take time to be interviewed by our team and share their vast knowledge of Taliesin West: Bruce Brooks Pfeiffer, Arnold Roy, Joe Fabris, Tony Puttnam, Minerva Montooth, Brandoch Peters, and Indira Berndtson. Others including John Rattenbury, Effi Casey, Frances Nemtin, David Dodge, Heloise Crista, Shawn Rorke Davis, and Thomas Olson provided helpful feedback and information to the team by attending the programming interviews and through informal conversations onsite with the master plan team.

3. EXECUTIVE SUMMARY

Taliesin West is one of Frank Lloyd Wright's most important works. It is more than a great work of architecture; it was Wright's winter home and studio, and the place where he trained hundreds of young men and women of the Taliesin Fellowship about the principles of organic architecture and his views on how people should live together in a community. He treated the site and its buildings as a place for experimentation for his ideas and changed various aspects of the Taliesin West property almost on an annual basis. From 1938 until after Frank Lloyd Wright's death in 1959, Taliesin West continued to be a vibrant community and living architectural site. Wright's wife, Olgivanna Lloyd Wright, continued to run the Fellowship and Taliesin Associated Architects continued to create architecture based on Wright's ideas and forms. The site and building elements of Taliesin West also continued to be altered in order to adapt to the changing needs and desires of Olgivanna Lloyd Wright and the members of the Fellowship.

Taliesin Associated Architects no longer exists, but a commitment to harnessing the impact of an immersion residential/educational experience continues – currently through the remaining members of the Taliesin Fellowship and the formal Frank Lloyd School of Architecture. The ever-changing landscape of architectural education and the certainty of the eventual passing of the Legacy Fellows suggest that these institutions will likely evolve into something different in the not too distant future. However, there is a strong commitment on the part of the Frank Lloyd Wright Foundation that Taliesin West should continue to be a “living site.” This is a fundamental aspect of what makes Taliesin West special.

The layered complexity of Taliesin West gives it a depth and richness of meaning that is only matched by Taliesin, its counterpart in Wisconsin, as a place to understand the work and life of Frank Lloyd Wright. The significance of Taliesin West has been demonstrated by its being listed as a National Historic Landmark and as one of the primary properties included in the World Heritage serial nomination, *Key Works of Modern American Architecture by Frank Lloyd Wright*, which is currently on the U.S. Tentative List for World Heritage.

This draft Preservation Master Plan for Taliesin West is the product of thousands of hours of research, on site building assessments, numerous meetings and workshops with key constituents as well as the actual writing and editing of the document. It is intended to provide the general context for understanding the complex of building and site elements that make up the historic core of Taliesin West and to serve as the overall guide for its rehabilitation, restoration and long term preservation.

It was the intent of the Frank Lloyd Wright Foundation that the Preservation Master Plan address the following four items.

1. Identify what needs to be preserved/restored and why.
2. Identify the level of preservation/restoration required for each of the individual components of Taliesin West and what would be acceptable alternatives.
3. Develop a magnitude of estimated costs to fully preserve/restore Taliesin West
4. Develop a prioritization of recommended future studies and restoration treatments for the individual building components at Taliesin West.

To accomplish these goals it was necessary to understand the complex of buildings that make up the 80,000 square feet of the historic core of Taliesin West. This required research into many primary and secondary source materials, historic drawings, photographs, and interviews with some of the Legacy Fellows who lived and worked at Taliesin West during Frank Lloyd Wright's lifetime. These efforts lead to the development of the section called **A Brief History of Taliesin West**. This is not intended to be an exhaustive recounting of the rich seventy-seven years of history that has created the Taliesin West of today. Such an effort would take many more months (perhaps years) of research and many more pages to tell the complete story. Rather it is intended to give the overall historic context of what is known today as Taliesin West.

The project team also spent many days onsite investigating the existing building elements, evaluating their condition and beginning to trace the numerous alterations that have occurred over nearly eight decades of change. This is reflected in the development of the **Construction Chronology** and **Condition Assessment & Evaluation of Integrity** sections of the report.

This fuller understanding of the site allowed the team to develop an overall approach of how to treat Taliesin West. This is described in a key section of the Preservation Master Plan called the **Preservation Philosophy & Approach**. It starts with the identification of all the values that are embodied in this important cultural heritage site and are the things that give Taliesin West its meaning and its significance. This in turn led to the development of an understanding of the primary period of significance of Taliesin West which was determined to be 1938-1959, the period of Frank Lloyd Wright's lifetime. This was not a simple decision and the process included an intensive two day workshop with key members of the Frank Lloyd Wright Foundation's Board Preservation Committee as well as the Oversight Committee, which is made up of nationally recognized experts in preservation and the work of Frank Lloyd Wright. There was a very lively debate and many important issues regarding the later developments of the site were brought forward and discussed at length. In the end, it was agreed that the focus of any restoration efforts moving forward should strive to regain the values and meaning that were present at Taliesin West during Wright's lifetime while respecting subsequent significant historic and architectural features whenever possible.

Since not all the existing elements that make up Taliesin West are from the primary period of significance, the team conducted an exercise of assigning "preservation zones" to each of the major building components that make up Taliesin West. The four zones are: Zone 1 (Primary Significance) – building elements, spaces and site elements that are integral to the Frank Lloyd Wright design and development of the site; Zone 2 (Secondary Significance) - building elements, spaces and site elements not integral to the primary significance of Taliesin West but still maintain some material from the period of Frank Lloyd Wright, or building elements within the historic core significantly modified after Frank Lloyd Wright's death; Zone 3 (Tertiary Significance) - spaces and building elements outside the historic core that were largely reconstructed after Wright's death but still retain some original elements; and Zone 4 (Minor Significance) - spaces and building elements constructed after Wright's death and are in no way seen as the work of Frank Lloyd Wright.

Because there is still much that needs to be known to determine exactly how to achieve the goal of regaining the heritage values from the time of Frank Lloyd Wright, the proposed work for each building component can only be described in general terms. However, the **Recommend Scope of Work** section does describe the conceptual scope of work needed to return each building component back to the primary period of significance. Typically this includes an approach that preserves, restores, and rehabilitates building elements, spaces and site features which contribute to the period of significance associated with Frank Lloyd Wright (1938-59). Work will be carried out in a manner that will enhance the understanding and interpretation of the site as a seasonal winter camp but will allow make accommodation for sympathetic interventions necessary for programmatic, functional or code related needs. This is a key section of the document and contains enough information to allow the development of the Magnitude of Estimated Costs which should be seen as setting an overall goal for the entire long term project to rehabilitate, restore and preserve Taliesin West well into the future.

The enormity of that undertaking and the acknowledgement that achieving that overall goal may take some time to realize, the team has also developed a **Prioritization of Work**, so that the more pressing items can be addressed as soon as money is available to do so. It should be noted that even embarking on the projects outlined in the Prioritization of Work will require some additional research and study. The old adage, "the more you know, the more you know you need to know" is certainly true of a historic site as complex as Taliesin West. There indeed is much more that needs to be known about the overall site and the individual building components before any real building projects should begin.

To that end, it is recommended that a Cultural Landscape Report be prepared that ties the overall 620 acre site with all of its building components beyond the historic core. There should also be more in-depth study of the individual building components before any final decisions are made related to their restoration. This should include more research of the primary source materials such as correspondence, invoices, and other documents. The information gained from this effort should in turn lead to individual Historic Structure Reports for each major building component and include an overall campaign of materials analysis of the building components and a number of in situ mockups to test repair methods for key building elements such as the desert masonry and the fabric roofs systems.

Trying to describe all the building and site elements that make up Taliesin West can be confusing. It is neither a single building nor a group of buildings. Rather it is a rich complex of indoor and outdoor spaces that are created by desert masonry walls, roofs, courtyards, walkways, landscaped areas and the desert itself. They all flow together in one interconnected whole that is Taliesin West. The names used throughout the Preservation Master Plan to describe the building and site elements are typically those that are in common use today. There are also a number of other terms or word usage that may not be familiar to the reader and are fully defined in the **Glossary**.

In addition to all the information contained in this document it is vital that a thorough and clear interpretive program be developed to fully explain the history of Taliesin West. This should include an explanation of the changes over time that have occurred in the past and those that will likely occur in the future. To that end, the Frank Lloyd Wright Foundation has engaged a consultant to develop an interpretation plan for the site. Those findings should be incorporated into the Preservation Master Plan so that any proposed future building projects are planned with the goals of the interpretation plan in mind.

The importance of interpretation and its impact on the future use and understanding of Taliesin West suggests the creation of a separate visitors' center. It is recommended that it be located on the Taliesin West property, but remote from the historic core so as not to negatively impact the historic building elements and landscape. This would not only allow for a more in-depth experience for visitors wanting to understand the history and meaning of Taliesin West and Frank Lloyd Wright, but will also provide an opportunity to provide visitor amenities such as a larger book and gift shop, toilet facilities, and food service. It would have the added benefit of reducing some of the burden currently imposed on the historic core.

4. INTRODUCTION

Between 2014 and 2015, the Frank Lloyd Wright Foundation sponsored a Preservation Master Plan for Taliesin West. The goal of the project was to provide a baseline study to direct future conservation efforts for Frank Lloyd Wright's winter home and studio, Taliesin West. The Preservation Master Plan consists of a historic narrative, construction chronology, preservation philosophy, summary of programming, condition assessment and evaluation of significance, recommended scope of work, prioritization of work, and estimated cost of work. The Preservation Master Plan has been reviewed by the Frank Lloyd Wright Foundation Board of Trustees as well as the Taliesin West Preservation Oversight Committee.

The project team consisted of the following professionals with identified roles:

Harboe Architects

- Gunny Harboe, FAIA – Project Principal & Workshop Leader
- Robert Score, AIA – Project Management & Condition Assessment
- Timothy Scovic, AIA – Historical Research & Writing

Watson & Henry Associates

- Michael Henry, PE, AIA – Environmental Management & Infrastructure Assessment

Building Conservation Associates

- Dorothy Krotzer – Materials Conservation

Turner Construction Company

- Matt Scruggs – Cost Estimating
- Dan deKoeyer - Cost Estimating



Figure 4-1 - View of Taliesin West looking northeast at Drafting Studio, Original Dining Room and Guest Deck, 2014 (Harboe Architects)

5. METHODOLOGY

The purpose of the Taliesin West Preservation Master Plan is to provide an outline to guide the longterm preservation and restoration of Taliesin West that includes a schematic level understanding of the scope of work necessary for rehabilitating and restoring the building complex for continued use by the Frank Lloyd Wright Foundation. The Preservation Master Plan will address the following: identify what needs to be preserved and why; identify the level of preservation/restoration required for each of the individual components of Taliesin West and what would be acceptable alternatives; develop a magnitude of estimated costs to fully preserve Taliesin West; and develop a prioritization of recommended future studies and restoration treatments for the individual buildings at Taliesin West. To accomplish the task of preparing the Preservation Master Plan, initial documentary research was conducted followed by more intensive on-site analysis of the building and site elements. The primary focus of the research and survey work was for the purpose of establishing architectural and historically significant spaces and features, identifying original building materials as well as later modifications, and documenting existing conditions, which would all inform the recommendations for the continued maintenance and necessary interventions of each of the buildings at Taliesin West.

Before beginning the on-site investigation, a survey was conducted of scholarly publications and documentary resources available from various resources. Research continued concurrently with on-site investigations throughout the project. A large amount of information was provided to the team by the Frank Lloyd Wright Foundation. Additional information was gathered from the Taliesin West Collections, Taliesin Architects Archive, and the Frank Lloyd Wright Archives at the Avery Architectural & Fine Arts Library at Columbia University, such as historic photographs and drawings, periodical articles, and a limited selection of project records and correspondence. Harboe Architects also conducted interviews with some of the members of the Taliesin Fellowship that were at Taliesin West during Frank Lloyd Wright's lifetime and helped to construct and renovate many of the building components on the site. This included interviews with Bruce Brooks Pfeiffer, Arnold Roy, Joe Fabris, Tony Puttnam, Effi Casey, Minerva Montooth, and Brandoch Peters.

Harboe Architects also conducted interviews with the four different user groups at Taliesin West including the administration, the Frank Lloyd Wright School of Architecture (both faculty and students), the tours and visitor services staff, and the Legacy Fellows. These interviews provided feedback on each group's space and environmental needs and how those needs are currently accommodated. This will be useful information to help determine priorities for restoration and future space needs.

Considerable effort was devoted to developing a detailed on-site visual condition assessment of the core historic building elements on the site. Particular consideration was given to the roof systems and how to remediate the current issues with water infiltration. The condition assessment also served as the means of documenting the existing conditions of interior spaces, elements and finishes. Based on these findings, a better understanding of the degree of Taliesin West's historical and physical integrity was established. Understanding the extent and condition of the extant historic fabric was essential in determining a space's or element's level of significance. These designations, together with the documentation of the existing conditions, were critical in recommending some treatments over others.

During the research and assessment phase of the project, there were two workshops held onsite at Taliesin West. At the first workshop, Harboe Architects presented the findings of its research and preliminary assessment of the site, and facilitated a discussion regarding the goals and scope of the restoration with a select group of Frank Lloyd Wright Foundation staff, Oversight Committee and Foundation Board Preservation Committee. The second workshop focused on the preservation philosophy. Prior to this workshop, a draft preservation philosophy was developed. The philosophy was then discussed onsite with a walkthrough of representative buildings at Taliesin West. Following the workshop a final draft was developed for review by select board members.

Based on both the documentary research as well as an on-sight visual assessment, treatment options for the rehabilitation of the core historic building elements at Taliesin West were developed. These recommendations are all in keeping with the *Secretary of Interior Standards for Rehabilitation*. In

addition, recommendations are included that will improve the use of existing spaces, as well as update the HVAC systems in the buildings. Over the years some spaces throughout the campus have had varying names. In order to maintain a consistency in the Preservation Master Plan document, spaces have been given names that are capitalized and used throughout.

The Preservation Master Plan also includes a magnitude of estimated cost (separate document) for the recommended scope of work broken down by building element. It is intended that the magnitude of estimated cost will provide a realistic estimate that is based on the conceptual design level scope of work provided to the cost estimator. A suggested prioritization of work outlined in this report is also included. The prioritization of work takes into consideration a logical sequence of work that is intended to establish priorities for the Frank Lloyd Wright Foundation's fundraising efforts.

It is our intention and understanding that this report provides the first step in the future preservation and continued use of Taliesin West. Further in-depth studies and investigations including a Cultural Landscape Plan, Conservation Management Plan, individual historic structure reports, and historic materials and finishes analyses will need to be conducted for components of Taliesin West to provide the Frank Lloyd Wright Foundation with the best possible outcome for the restoration, rehabilitation, and longterm preservation of this National Historic Landmark and potential World Heritage site.

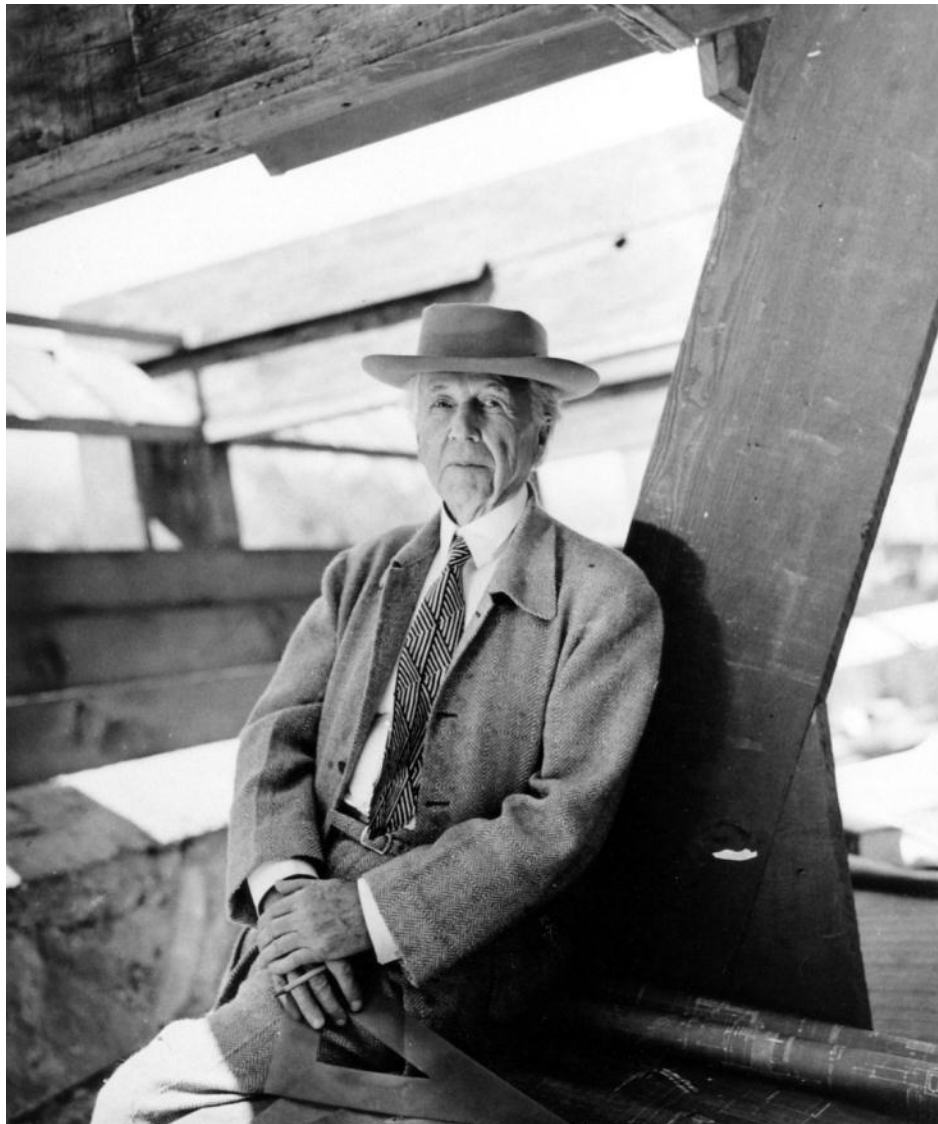


Figure 5-1 - Frank Lloyd Wright in the Drafting Studio, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

6. A BRIEF HISTORY OF TALIESIN WEST

Numerous books have been devoted to the life story of Frank Lloyd Wright including his own autobiography first published in 1932, with several later additions. It is beyond the scope of this report to fully recount his colorful ninety-one years other than as it relates to his creation of Taliesin West and the time he spent there. It is also beyond the scope of this report to develop a detailed account of the social history of the Fellowship at Taliesin West. The primary purpose of this historic narrative is to give context to the creation and ongoing alterations of Taliesin West.

1920s

The 1920s were a transitional period for Frank Lloyd Wright, both professionally and personally. After experiencing great success at the beginning of the century with his "Prairie Houses", Wright experienced a sharp decline in his work. Much of this may have been the result of his scandalous affair with Mamah Borthwick Cheney, the wife of a former client. To escape the unwanted publicity, Wright fled to Europe where he worked on the Wasmuth Portfolio, a comprehensive presentation of his body of work up to that time. With that completed, he returned to the United States in 1911 and moved to his family's land in Spring Green, Wisconsin and began to construct a new home and studio where he intended to live with Mamah Cheney and her children. He called it Taliesin, which means "shining brow" in Welsh; a nod to the cultural roots of his mother's family. Wright and Mamah Cheney quickly settled into a new life at Taliesin but their time there together was short lived. In the summer of 1914, a deranged servant set fire to Taliesin and murdered seven people with an ax including Mamah Cheney and her two children. Although Wright, who was in Chicago when the fire and murders occurred, was devastated he began almost immediately to rebuild Taliesin, determined to move past the terrible tragedy.

While the rest of the country was experiencing the peace and prosperity that followed World War I during the "Roaring Twenties," Wright's life was much more tumultuous. His first wife, Catherine, granted him a divorce in 1922 and the following year Wright married Maude "Miriam" Noel. Although this marriage failed within a year because of Noel's addiction to morphine they did not officially divorce until 1927. In 1923, Wright's beloved mother, Anna Wright, passed away. The distress he must have felt during this period caused by the failure of his marriage and the death of his mother were compounded by his lack of architectural commissions and yet another fire at Taliesin in 1925. Although he had some very successful projects in the early 1920s including the Imperial Hotel in Tokyo and the California textile block houses, Wright spent much of the last half of the decade in debt and searching for work. With the exception of a couple of houses and some unbuilt designs that included San Marcos-in-the-Desert, significant built work would not come his way until the commission for Fallingwater in 1935.



Figure 6-1 - Frank Lloyd Wright and Olgivanna, ca. 1936 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

The bleak 1920s did include one bright spot for Wright that would stay with him for the rest of his life. In 1924, he met Olgivanna Lazovich Hinzenburg in Chicago. She moved in with him at Taliesin in 1925 with her daughter from a previous marriage, Svetlana, and later that year their daughter, Iovanna, was born.

Ocatilla – A Camp in the Desert

In 1927, Frank Lloyd Wright and Olgivanna Lloyd Wright traveled to Phoenix, Arizona, where he consulted on the design and construction of the Arizona Biltmore Hotel. The hotel was being designed by a former protégé, Albert McArthur, who asked Wright to help with the design of the textile block walls. While in Arizona, Wright met Dr. Alexander Chandler, who commissioned him to design a new hotel near Chandler, Arizona, San Marcos-in-the-Desert. In the winter of 1928-29, Wright, his family, and his draftsmen traveled back to Arizona to work on the design of the new resort. Rather than spending money on many hotel rooms, Wright and his men designed and constructed a camp of small wood frame cabins with canvas roofs to live and work close to the proposed building's site. He named the camp "Ocatilla," in reference to the spiny desert shrub, Ocotillo, that displays a beautiful triangular cluster of red flowers in the rainy season.

Wright described the building of the camp in his autobiography as follows:

"The box-board cabins themselves are to be connected by a low staggered box-board wall with a horizontal zig-zag – (for the same reason Thomas Jefferson worm-walled his brick). It will be self-supporting and complete the structure just referred to as a 'compound.' Necessary openings in the canvas-topped box buildings we will close with canvas-covered wood frames. Flaps hinged with rubber belting. No glazed doors or windows. Glass is not for the type of desert camp if indeed glass belongs in the Desert at all. Finally to 'justify' our wild adventure, Ocatillo cost not so much more than the rent or keep asked for equivalent accommodations in Chandler or in Phoenix for the one season we were to stay. The cost was about two hundred dollars per cabin. The labor was mostly our own. We are the better for that labor. We have met the Desert, loved it and lived with it, and the Desert is ours."

Clearly Wright felt invigorated by the experience and it was to serve as a model for the way he would build Taliesin West, wood framing, canvas panels and free labor. Wright's interest in using white canvas to create enclosures in the desert would continue for many years. He was fascinated by the way sunlight was diffused through the canvas, describing it as follows:



Figure 6-2 - Ocotillo plant (Gunny Harboe, 2014)



Figure 6-3 - Frank Lloyd Wright and family at Ocatilla in 1928 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

"I presently found that the white luminous canvas overhead and canvas used instead of window glass afforded such agreeable diffusion of light within, was so enjoyable and sympathetic to the desert that I now felt more than ever oppressed by the thought of the opaque solid overhead of the much too heavy mid-western house."²

He was also interested in the possibilities of their dynamic spatial affects stating: "Now, when all these white canvas wings, like sails, are spread, the buildings – butterfly simile aside – will look something like ships coming down the mesa, rigged like ships balanced in the breeze."³ Despite all the effort to create the camp, Ocatilla was short lived. In the fall of 1929, the United States stock market crash ended the San Marcos-in-the-Desert project and the camp was abandoned and eventually demolished. While only occupied for less than a year, the design of Ocatilla was important in the development of Wright's organic desert architecture and its canvas roof systems would later influence the designs for the Office, Drafting Studio, Garden Room, Sun Trap, and Pavilion at Taliesin West.

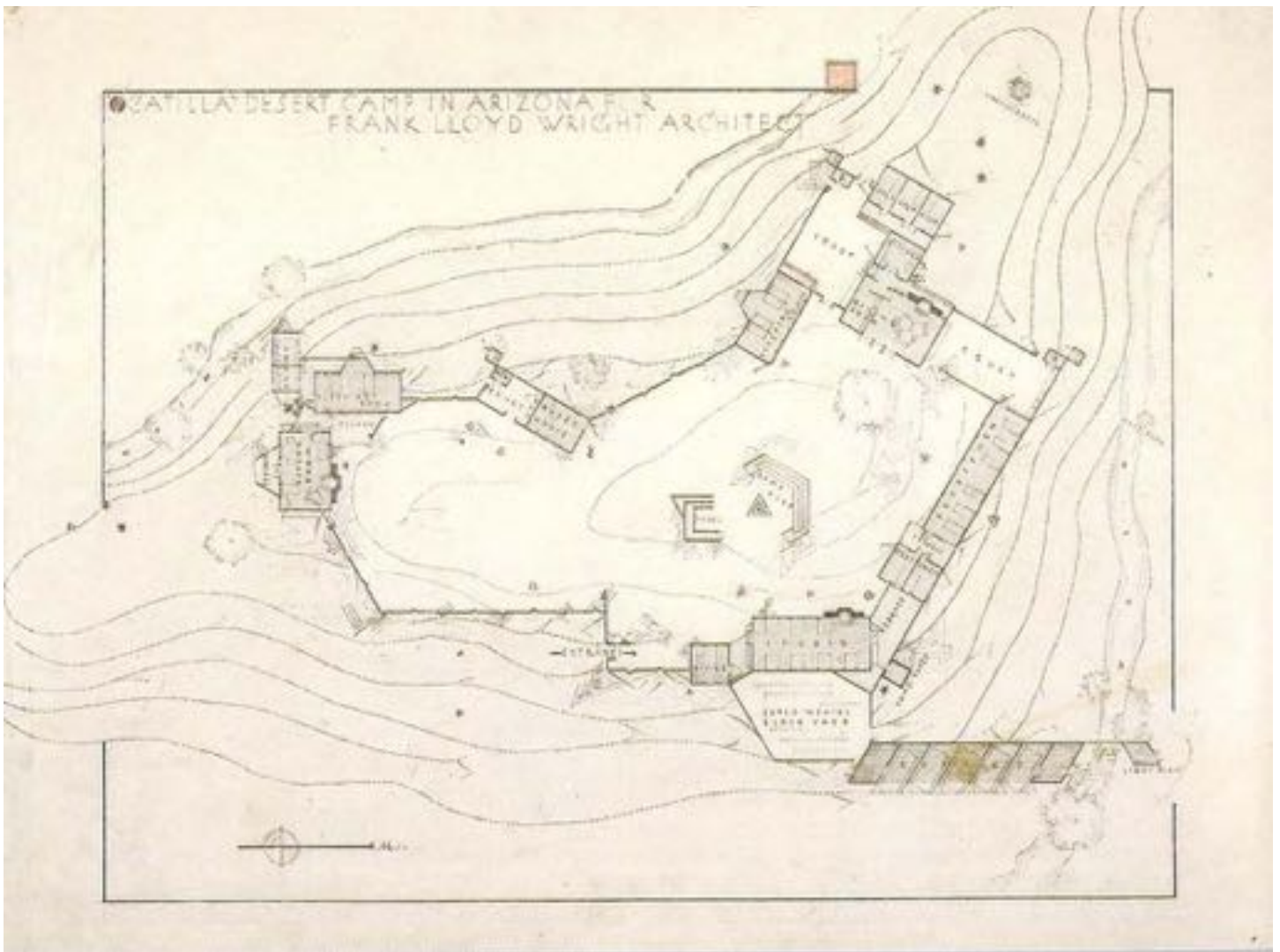


Figure 6-4 - Site plan for Ocatilla (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

The Fellowship

In 1932, Frank Lloyd Wright and Olgivanna Lloyd Wright created the Taliesin Fellowship, at their home in Spring Green, Wisconsin. The Fellowship provided an alternate form of education and the exceptional opportunity to learn from and work for the master himself. The members of the Fellowship were known as apprentices and lived and worked at Taliesin. The Fellowship was a work-life balance in which all apprentices learned by doing. While the apprentices came eager to work for Wright in the drafting studio, they soon found that they were expected to perform other tasks including cleaning, cooking, construction and renovation, and even working on the farm. In the first year of the Fellowship, each apprentice paid \$650 per year to have the opportunity to learn from the master, Frank Lloyd Wright. The first group of twenty-three young apprentices began their training in architecture at Taliesin in October of 1932 and Wright continued to draw in eager young men and women each year after. The Taliesin Fellowship proved to be an excellent learning opportunity for the apprentices and a great way for Wright to make money during a slow period in his architectural career. Of course the unusual combination of learning by doing architecture with the more mundane chores of cooking, cleaning and even farming was not for everyone and there was a good amount of turnover. However, there were a number of people who thrived in that environment and remained for many years and in some cases for their entire lives. Some of the key apprentices from the early years of the Fellowship who stayed on and became Senior Fellows were William Wesley (Wes) Peters (who became Wright's son in law), John Howe, Eugene Masselink (Wright's personal secretary), Kenneth Lockhart, John Hill, and Curtis Besinger. Besinger's book, *Working with Mr. Wright: What it Was Like*, provides a first hand account of his experiences as part of the Fellowship. It proved very helpful in developing key dates used in this report as he was part of the crew that actually built Taliesin West.



Figure 6-5 - Frank Lloyd Wright with his apprentices at Taliesin, ca. 1935 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Return to the Desert

The success of the Fellowship continued throughout the 1930s and by the end of the decade Wright and his apprentices would find a second home in the Arizona desert. Frank Lloyd Wright first returned to Arizona in the winter of 1935. He was looking for a place where he and the Fellowship could go to escape the harsh Wisconsin winter. His former client on the defunct San Marcos in-the-Desert project, Dr. Alexander Chandler, offered the Fellowship lodging and workspace at La Hacienda in Chandler, Arizona. There Wright and the apprentices spent the winter of 1935 developing the model for Wright's utopian Broadacre City that was to be displayed later that spring in New York, Pittsburgh, Washington, D.C., Madison and Mineral Point, Wisconsin.

While La Hacienda provided adequate space for the Fellowship to live and work, Wright wanted to find a more permanent winter camp in Arizona. He took numerous excursions into the surrounding areas looking for a place to build. A severe bout with pneumonia during the brutal Wisconsin winter in 1936 further encouraged Wright to actively look for a site to create his new winter camp. In December 1937, Frank Lloyd Wright and Olgivanna Lloyd Wright traveled again to Arizona to search for property to construct their new winter home. After an extensive search Wright found what he was looking for. As he described it: "Finally I learned of a site twenty-six miles from Phoenix, across the desert of the vast Paradise Valley. On up to a great mesa below McDowell Peak we stopped, turned, and looked around. The top of the world!"⁵ The site, with its elevated view of the desert, would prove to be a powerful inspiration for Wright as is clear from his description in his autobiography: "*Just imagine what it would be like on top of the world looking over the universe at sunrise or at sunset with clear sky in between. Light and air bathing all the worlds of creation in all the color there ever was – all the shapes and outlines ever devised – neither let nor hindrance to imagination – nothing to imagine – all beyond the reach of the finite mind. Well, that was our place on the mesa and out buildings had to fit in.*"⁶



Figure 6-6 - View looking south from Taliesin West, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

A Site Connected with Ancient History

While the natural beauty of the site was readily apparent, it also was imbued with some more spiritual qualities that were also not lost on Wright. The site that became Taliesin West has a profound history rooted in ancient Native American culture. Although there is no surviving physical evidence remaining in the Scottsdale area of their presence, it is believed the first inhabitants of the region were the Paleo-Indians, who arrived around 14000 B.C. These prehistoric natives were hunters and gatherers and moved through the region hunting big game. During the Archaic Period (8000 B.C. – 1 A.D.), native cultures developed from being nomadic hunter/gatherers to creating settlements in the region around present day Phoenix. These settlements were focused around agriculture and located along the Salt River and Gila River, utilizing the flood waters for farming. While farming became a main source of sustenance for the Archaic people in the Salt and Gila River valleys, they continued to hunt and gather native desert plants. Spear points and other artifacts found in Northern Scottsdale, near the McDowell Mountains, indicate that Archaic hunters likely traveled to this area.⁷

The Hohokam

The first permanent settlers in the Sonoran Desert of central Arizona were the Hohokam people. They were farmers that lived in the region from roughly 1 A.D. to 1450 A.D. The Hohokam were able to adapt to the harsh desert climate by constructing canals to irrigate their farm fields and their settlements were primarily located near rivers, including the Salt, Gila and Verde Rivers. They were skilled at farming various crops such as corn, beans, squash and cotton, as well as creating elaborate architecture, hand crafted pottery and jewelry. Several archaeological sites have been unearthed in the Scottsdale area, including at Taliesin West. The Hohokam are believed to be the creators of the petroglyphs that can be found on the large boulders throughout the Taliesin West complex. These petroglyphs were discovered by Frank Lloyd Wright and his apprentices during the initial phase of construction in the late 1930s and moved to their current locations as part of Wright's master plan design for the site. The Hohokam culture began to decline in the 15th century and they had generally moved away from the Phoenix area by 1450.⁸

Following the decline of the Hohokam, several other Native American tribes began to move into the Scottsdale area including the Pima and Maricopa. Beginning in 16th century, Spanish conquistadors began to explore the region in search of Native American treasures. In the 17th and 18th centuries Spanish missionaries began to arrive in the region and set up missions to try to convert the local native cultures to Catholicism. Many of the first written records of the history of the region came from these missionaries.⁹

In 1821, Mexico gained its independence from Spain. At that time what is now the State of Arizona was part of Mexico. Shortly after Mexican independence was achieved, Anglo-Americans began arriving and settling in the southwest, including the Phoenix area. This eventually led to disputing claims over land and ultimately The Mexican American War (1846 – 1848). Following the war, the border between the United States and Mexico was drawn along the Gila River. In 1853, the Gadsden Purchase expanded Arizona south to the present day border. Ten years later, in 1863, Arizona was established as an official United States Territory. That same year, gold discovered in the Bradshaw Mountains near Prescott, Arizona brought prospectors and settlers to the region and Phoenix was officially recognized as a town in 1868. In the 1880s, the first railroads to cross Arizona brought more people to Phoenix and in the 1890s the now abandoned Rio Verde Canal (south and west of Taliesin West) was constructed to bring water to the region. The end of the 19th and early 20th century was a time of significant population growth in Arizona, particularly in the Phoenix area and in 1912 Arizona finally became the 48th state.¹⁰

Although Phoenix itself grew throughout the early 20th century, the Paradise Valley, at the foothills of the McDowell Mountains, northeast of the city remained largely undeveloped. The Native American tribes had moved on long ago, and those that remained in the area into the 19th century had been relocated to reservations by the United States government. The desert land on the hill overlooking the Paradise Valley would remain largely unscathed by humans until Frank Lloyd Wright purchased the property in 1938 and, with the help of his apprentices, began constructing his ideal desert camp, Taliesin West.

Building Taliesin West

By December 30, 1937, Wright had secured a site for the Fellowship's winter camp and sent for his apprentices via telegram to Gene Masselink:

*"Weather warm beautiful site in hand. Come Jokake soon you are ready. Bring shovels rakes hoes also hose. Eighteen drawing boards and tools. Wheelbarrow concrete mixer small kohler and wire. Melodeon oil stoves for cooking and heating. Water heater viola cello rugs not in use and whatever else we need."*¹¹

The apprentices quickly closed up Taliesin and began their cross country journey from Spring Green, Wisconsin to Arizona's Paradise Valley. They arrived in Arizona in February of 1938, shortly after Wright completed the purchase, and immediately began to build the new winter camp. A very detailed description of the early development of the Taliesin West and an analysis of Wright's designs for the buildings can be found in Neil Levine's article, "Traces of Prehistory at Taliesin West." He explains; "Taliesin West was planned *in situ*. Within the first month or so (January-February 1938), temporary wood-and-canvas shelters for drafting, cooking and eating were set up in the wash to the west and slightly south of the spot chosen for the permanent structure. The apprentices camped out in the sleeping bags and tents."¹² The Wrights stayed at the Jokake Inn nearby until the sleeping boxes that became "Sun Trap" were completed.

The first priority was constructing a private access road from the camp to the closest existing public road (what is now Shea Boulevard). This was not an easy task given the rocky desert terrain, and it took most of the winter of 1938 to finish the road. In the end, the apprentices were able to construct a road that was drivable, albeit somewhat treacherous, especially after a significant rainstorm.

Once the road was completed, they could begin to work on the buildings that would become the core of Taliesin West. Wright himself planned and designed the entire camp to respond to the surrounding environment, as he recounted in 1949, "Our camp was freshly inspired by the native forms of the Arizona desert itself."¹³ Low walls and natural materials were used to blend into the surrounding desert. Wright was very adamant that Taliesin West was to be a desert camp with integral exterior and interior spaces that responded to the winter climate of the Arizona desert. But as Levine points out, there was much more to his design than a simple, immediate environmental response. "Struck as he was with the 'magnificence' of the natural features of the site, and awed by their 'mystic' overtones, Wright took into equal account the topographical and the ethnographical aspects of the landscape as determining factors in the design of Taliesin West."¹⁴

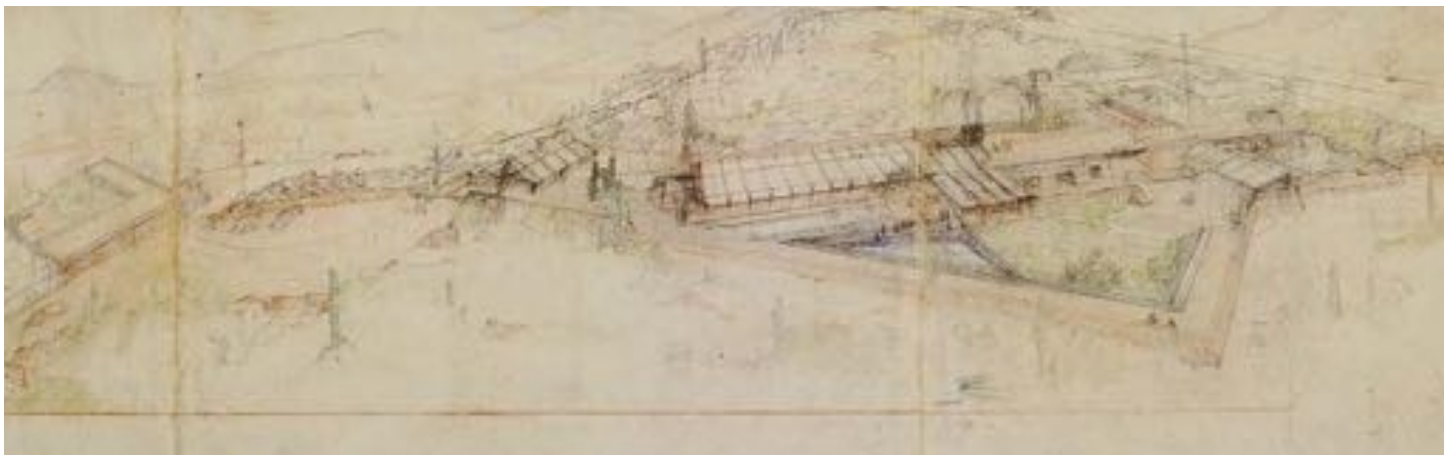


Figure 6-7 - Axial perspective drawing of Taliesin West (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Living In Situ

Living, working and designing in situ allowed Wright to make direct and immediate connections to the place. Buildings were purposely laid out to take advantage of the angle of the sun, views, and natural breezes on the site. The core buildings were arranged on a sixteen foot grid on axis approximately 30 degrees west of south to align with views of the mountains and to take advantage of the orientation of the sun as light filtered through the white canvas and uncovered openings. Walls, openings and paths through the camp were carefully planned to frame views out into the desert. The surrounding landscape was designed to seamlessly transition from the open camp buildings to the vast Arizona desert beyond. Wright incorporated low desert masonry knee walls, concrete paths, and native desert plants to connect the camp to the desert environment. He also instructed the apprentices to move large boulders from nearby to be placed as sculptural elements at key locations throughout the camp. Many of these boulders had ancient Native American petroglyphs on them, and Wright, being fascinated with Native American culture, wanted them prominently displayed in his desert camp as another means for relating Taliesin West to the desert around it.¹⁵ Levine provides another detailed and compelling argument that the placement of these important markers and carefully framed views were part of an intentional “procession” through the site. Wright wanted all who visited, and especially the apprentices who lived and worked there, to have a similar transformative experience as he had when he first encountered the site.

“The processional movement through Taliesin West becomes, in part, ritual formalization of the first sighting of the place and thus a continual re-experiencing of the finding of the Promised Land. The desert is not only made available to the visitor in this way, but is foregrounded in the view from the drafting room as the everyday focus in the life of a Taliesin Fellow.”¹⁶

The effect it could have on people, especially other architects, is well described by none other than Philip Johnson, who had a complicated decades’ long relationship with Wright. He wrote a lengthy description in 1957 of his first experience arriving at Taliesin West. He gives what amounts to an almost step by step depiction through an ever changing and engaging journey created by Wright.

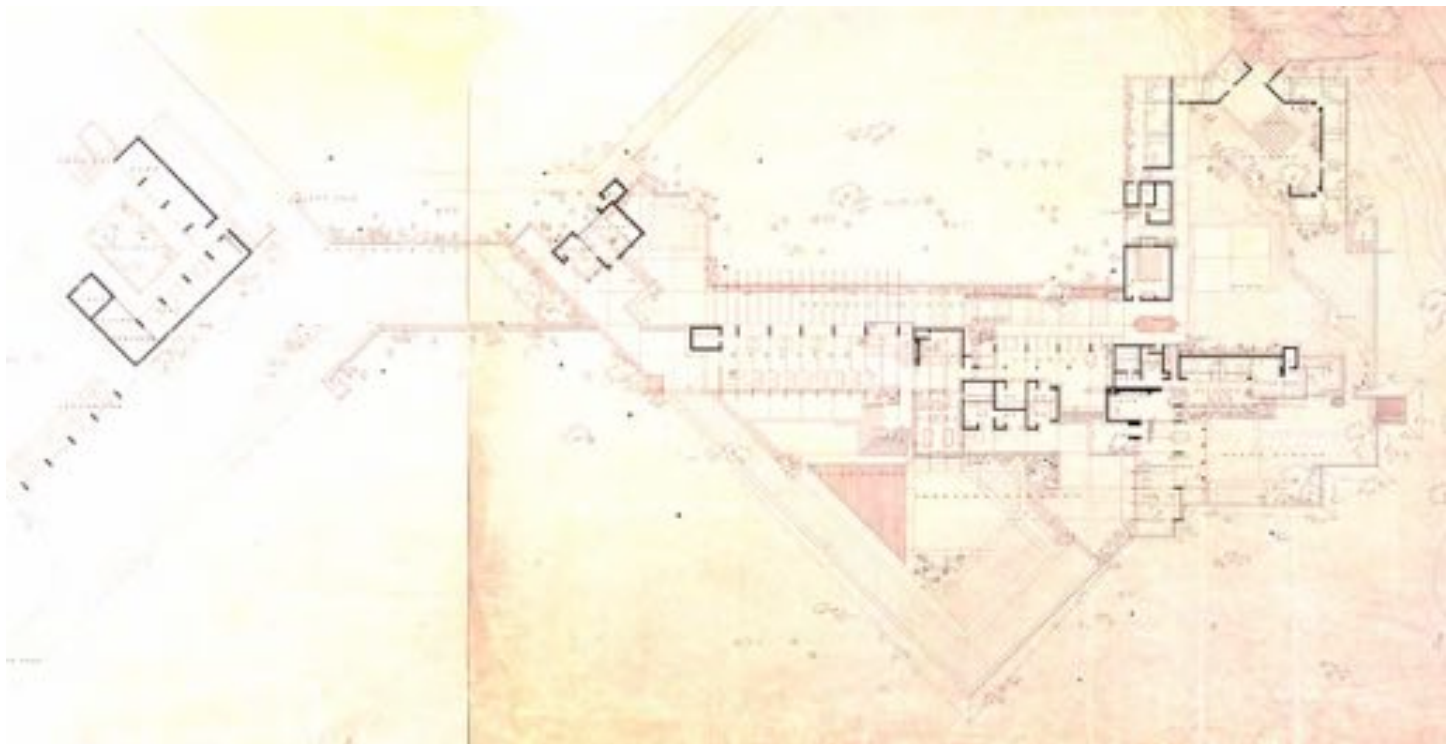


Figure 6-8 - Master plan for Taliesin West, ca. 1938 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-9 - Framed view of mountain under Kiva bridge, ca 1942 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

“He has developed one thing which I will defy any of us to equal: the arrangements of secrets of space. I call it the hieratic aspects of architecture, the processional aspects.” Johnson goes on to describe all the twists and turns and moments of discovery and surprise he encountered. It begins with a sense that visitors to the site are among a “meaningless group of buildings” but concludes with the statement of “My friends, that is the essence of architecture.”¹⁷

The individual buildings at Taliesin West were ingeniously designed by Wright as well. Drafted out in the open desert on brown butcher paper (to cut down on glare) Wright's plans, elevations, sections, and details appeared more like schematic sketches than working construction drawings. They had few, if any, dimensions and provided minimal information for construction; however, Wright personally oversaw the daily construction on site and made sure that each structure was built to fulfill the vision he had created in his mind. He regularly made design modifications as the buildings were being constructed. Seemingly never fully satisfied with the designs, or at least seeing room for improvement, Wright was continuously making alterations to the buildings and landscapes at Taliesin West up to the time of his death in 1959. It was an ever evolving experiment in the desert.



Figure 6-10 - Frank Lloyd Wright working at the drafting table during construction of Taliesin West, ca 1938 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

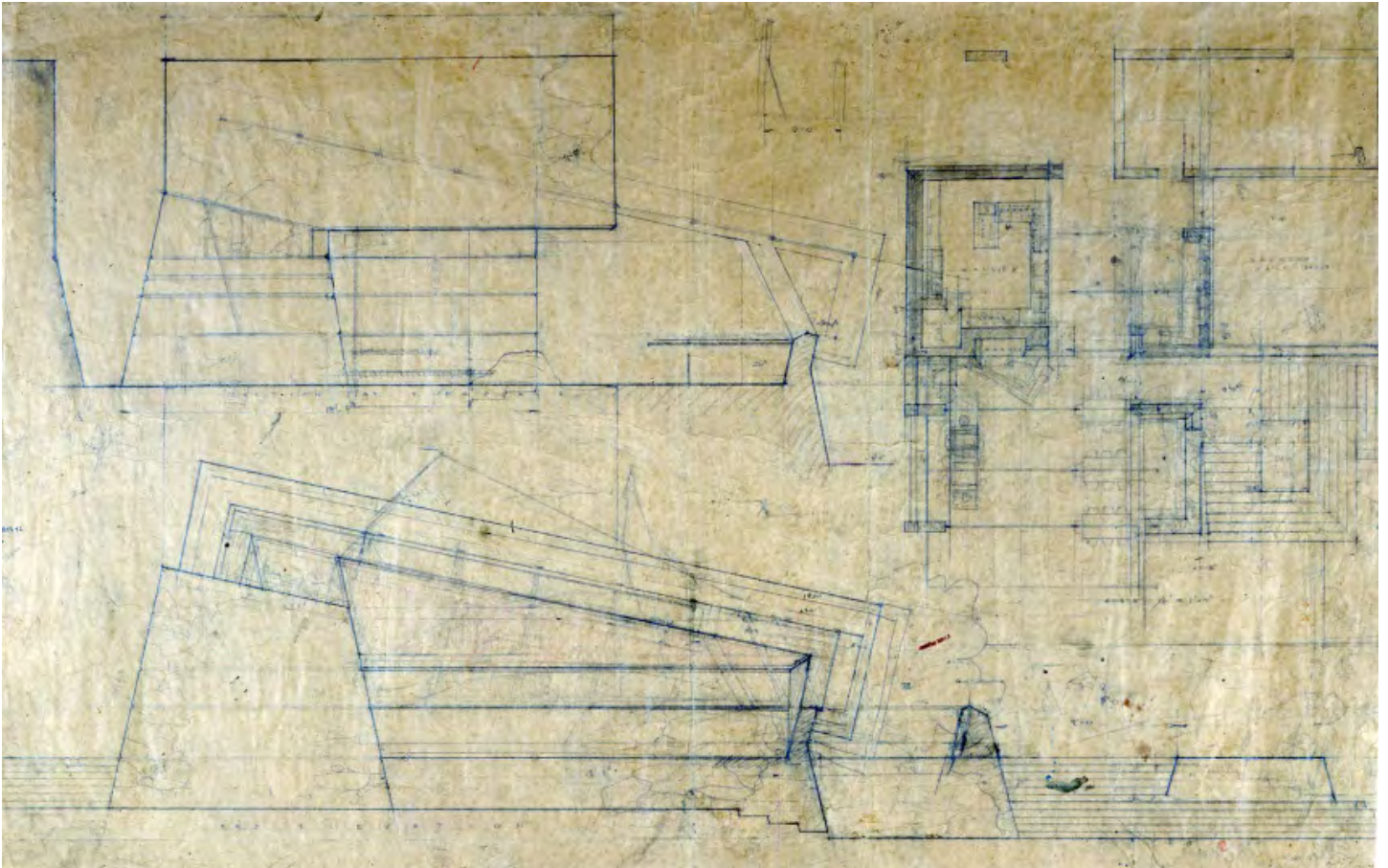


Figure 6-11 - Drawing of Drafting Studio (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-12 - Construction of Kitchen and Drafting Studio, ca 1938 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

The Historic Core

The first buildings to be constructed were Wright's Office, the Drafting Studio, the Kitchen, the Original Dining Room (now the Board Room), Wes and Svetlana Peters' and Gene Masselink's Rooms, the Loggia, and the Kiva. This is what makes up the historic core of the campus. Also, built at the same time but slightly removed from the main core was the Sun Trap. This structure was the original sleeping quarters for Frank Lloyd Wright, his wife Olgivanna, and their daughter, Iovanna.

Construction began in 1938 and continued into 1941 for these core buildings.¹⁸ The first structure to be built was the vault at the northwest end of the studio. The completion of the vault was crucial, as it was to hold the drawings being completed for all of Wright's architectural projects at the time. The walls of the vault were constructed of what Wright initially termed "desert rubble stone" but eventually came to be known as simply "desert masonry". Wright devised a way to use the abundant native stone around the site mixed with a dry cement mix to construct thick, solid walls to enclose the buildings he designed. What began in the vault quickly became the architectural vocabulary for the structures throughout the rest of the camp.¹⁹ The buildings were literally made of the desert.



Figure 6-13 - Desert masonry vault at west end of Drafting Studio, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Desert Masonry

The process of building the desert masonry walls was similar to constructing a poured-in-place concrete wall and was carried out by the apprentices under the direction of Wright. It required first constructing wood formworks. The large stones and boulders were then strategically placed in the formwork with the flat face of each stone flush with the inside face of the formwork. Once set in place, the cement was poured and filled in the space between the stones. When the mix was cured, the formwork was removed revealing the completed wall. The work was done in stages and as each section of the wall was completed the formwork was moved and reused. The stones used were igneous rock of a variety of colors and shapes. The great variety in the stones, according to Bruce Brooks Pfeiffer, is what gave the walls their character and made them “truly mosaic-like, as a whole.”²⁰ Not all the stones had flat surfaces, so to prevent the cement from running down over the face of the stones, Wright instructed the apprentices to place small round stones around the top of the large stones. These so called “goose-eggs” add to the rich texture and color of the walls. Wright was also fascinated by the horizontal grooves in the stone canyons he saw in northern Arizona and instructed the apprentices building the desert masonry walls to insert triangular wood strips on the inside face of the formwork before placing the stones and pouring in the concrete. This resulted in the creation of horizontal grooves in the surface of the walls, mimicking what Wright observed in the canyons. He was pleased with the outcome. This was the method of construction used for all of the buildings at Taliesin West throughout Wright's lifetime and after.²¹

Canvas Roofs

The solidity and permanence of the desert masonry was contrasted with the lightness and ephemerality of the canvas panels he used for many of the roofs. Wright's experiments with canvas as a roofing material began at Ocatilla in 1927. At Taliesin West he continued the experiment using simple redwood frames covered in taught canvas to create the roofs of the Drafting Studio, Office, Garden Room, and later the Pavilion. Wright described the canvas roofs as follows:

“For overhead balconies, terraces, and extended decks we devised a light canvas-covered redwood framework resting upon massive stone masonry that belonged to the mountain slopes all around. On a fair day when the white tops and side flaps were flung open the desert air and the birds flew clear through.”²²

The operable canvas panels were supported on built-up redwood framing members that rested on desert masonry piers and walls. They were opened and closed with a system of ropes and pulleys to let the natural breezes of the desert flow through. Wright continuously modified the canvas roofs, trying to find the best method for construction. The design was changed almost yearly not only because of Wright’s desire for perfection in the system, but also because the wood and canvas did not last long in the harsh desert climate in the summertime. This is why the panels were removed and stored for the summer in the first few years at Taliesin West. Wright would continue to experiment with new techniques and materials up until his death in 1959. After that the Fellowship continued to experiment with the roof system first changing the material from canvas fabric to fiberglass – and eventually acrylic – in an effort to improve performance while still maintaining a level translucency.²³

Sleeping Accommodations

When the young apprentices arrived in 1938, each of them was provided with a 9 x 9 “sheep herder” tent that they would have to erect for themselves on a site on the outskirts of the camp. The tents provided the apprentices with some refuge from the desert climate in which to sleep; however, most of their time was spent outside working on the construction of the new camp. This tradition has continued to the present day with the students attending the Frank Lloyd Wright School of Architecture given the opportunity to design and build their own shelter in the desert.



Figure 6-14 - Canvas roof overhead in Drafting Studio, ca. 1939 Drafting Studio (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Conditions in the early days at Taliesin West were primitive. There was a well for water, but no hot water was available for washing and bathing. The only hot water was in the Kitchen. Toilet facilities were wood-frame, canvas enclosed privies over holes dug in the ground. Electricity was provided with a single generator that was turned on every morning and turned off every night. All the buildings had fireplaces that provided heat in the mornings and evenings and the natural breezes flowing through the open canvas flaps provided cooling on hot days. While the Wright's living conditions were not as rustic as that of the apprentices, they were by no means luxurious. Prior to the completion of his on site accommodations, Wright and his family took up residence at the nearby Jokake Inn and made the journey to camp each day.²⁴ Once the Sun Trap was completed he lived on site with everyone else.

The Drafting Studio

The center of activity for the Fellowship in the first years at Taliesin West was the Drafting Studio. As the first building constructed, it functioned as the living room, dining room, work room, and a rehearsal place for the chorus. Music had always been a very important part of Wright's life. He loved to play piano and he loved to listen to others play. A grand piano stood at the west end of the studio always at the ready.

In the early days, some apprentices even slept in sleeping bags on the Drafting Studio floor every night before they had constructed their own tents. Although it was covered by a canvas roof, the Drafting Studio was largely exposed to the desert environment. Openings at the west end and between the masonry piers on the north side were left uncovered, leaving occupants exposed to the climate and creatures of the Arizona desert. On the north side of the Studio was a wood framed pergola.²⁵



Figure 6-15 - Inside the Drafting Studio looking west with grand piano in background, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Kitchen and Dining Room

Adjacent to the Drafting Studio was the Kitchen which also had a concrete floor, walls of desert masonry, a serving counter, a large stove for cooking, a sink for washing dishes, and a storage room to keep the food. The Original Dining Room was accessed through the Kitchen. After it was completed, meals for the apprentices moved from the Drafting Studio to the Dining Room. The room was a rectangular mass that extended to the south of the Kitchen into the prow. It had thick, battered desert masonry walls and the north end of the room had a large masonry fireplace. The floor was smooth concrete separated into panels by wide mortar joints with exposed aggregate. The roof structure was raised up above the desert masonry walls to create a continuous slotted opening on three sides. The roof beams extended out past the wall on the south side with decorative wood "icicles" hanging from the ends. At the center of the roof was a large canvas skylight that let diffused natural light enter the space. Wood tables with small wooden stools provided the apprentices with places to eat their meals. Though not as enclosed as the Kiva, this was an inward looking contained space.



Figure 6-16 - Exterior of Original Dining Room, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Peters and Masselink Rooms

Next to the Original Dining Room, Wright designed rooms for Gene Masselink and William Wesley and Svetlana Peters. The three rooms were rather sparse and expressed on the exterior by three cave-like openings in the desert masonry wall with canvas panel doors. To the north of these rooms was a covered loggia that would eventually extend to the Wright's Living Quarters and create a breezeway. The loggia was originally set up with looms for weaving, but later long tables with bench seating were added and it became an outdoor dining space. In 1950, the loggia was enclosed and made into the new Fellowship Dining Room.

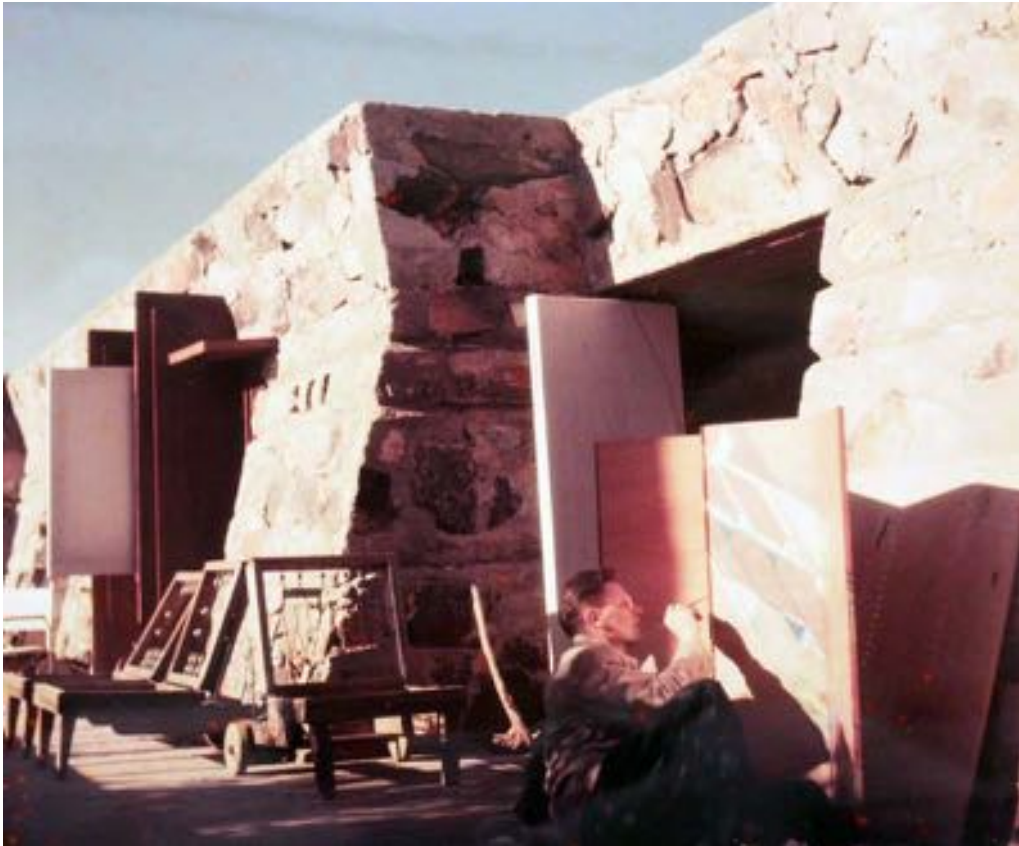


Figure 6-17 - Gene Masselink painting wood panel on terrace outside his room, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-18 - Women apprentices weaving on the loggia, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Kiva

North of the loggia was a small structure built entirely out of desert masonry (walls and roof) that Wright called the "Kiva". There was a small opening with a wood door on the south side of the room. The Kiva was originally used as a theater space. There was a small wooden projection room on the north side with a small opening in the upper part of the masonry wall for the projector. On the south wall, above the fireplace was a screen for showing films. Next to the screen was a tiered area where the chorus would stand and sing and a niche where an upright piano was placed. Music was integral to life at Taliesin and the Kiva hosted many performances. Around three sides of the room facing the screen were benches and in front of the benches were ledges where apprentices could eat dinner while enjoying a film. At the center, in the back was a table for the Wrights and their guests and in front of the table was more seating that descended in height toward the screen. The people in the front row sat on the floor.²⁶ In his *Autobiography*, Wright described his "desert playhouse" as "solid masonry inside and outside, with a sunken fireplace and an outside hangar for our cinema to peep in through the thick stone wall, arrangements for feasting and music. A triumph of imagination by way of simple form and limited space in the heart of a great cubical masonry block."²⁷



Figure 6-19 - Frank Lloyd Wright and Olgivanna with the apprentices in the Kiva, ca. 1942 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-20 - Interior of Sun Trap, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Sun Trap

To the east and separated from the main core of the camp by a wash was a structure that Wright designed and built as temporary living quarters for himself, his wife, Olgivanna, and their daughter, Lovanna. It was located east of the main core of the campus and constructed of wood framing, with wood board and canvas used to enclose the spaces within. It contained three sleeping boxes (one for each of its three occupants) surrounding a central square courtyard that was paved in concrete. In his book, *Working With Mr. Wright*, Curtis Besinger described the conditions inside the Sun Trap as follows:

"The sleeping boxes were long enough for a mattress (with a little space at one end to hang clothing), wide enough for a person to stand alongside the mattress and dress, and high enough, on the high side, for a person to stand. A terrace on the south side of the courtyard was enclosed with a chest-high wall and served as a kind of outdoor sitting room. The 'bathroom' was also enclosed with a chest-high wall; it contained a chemical toilet, wooden shelves for a tin washbasin and an olla (a container for water), and an oleander bush."²⁸

There was also a stepped roof over the courtyard and a sitting room with a fireplace on the northeast side of the courtyard. The Wright's lived in the Sun Trap for two winters until their private living quarters, located directly adjacent to the core buildings, were completed in 1940. After this, the Sun Trap was used to house guests visiting Taliesin West.

Wrights Living Quarters and the Garden Room

Construction of the main core of the camp continued each Winter/Spring season at Taliesin West up through 1941. By this time additional buildings had been completed including the Garden Room, Wrights' Living Quarters, Apprentice Court, and Guest Deck. The Garden Room was completed in 1940 as a living room for the Wrights, but it became a shared space for all of the Fellowship, often hosting parties and formal evenings of lively music and stimulating conversation. To the north was a dining cove with a large desert masonry fireplace, an intimate dining space for the Wrights and their dinner guests. The walls of the Garden Room, like the other buildings on campus, were constructed of desert masonry, and the floors were concrete covered with a rose colored shag carpet. Overhead was a slanted roof constructed of redwood framing and operable canvas panels similar to the Drafting Studio and Office. The east side of the room opened up onto a terrace and the Wright's private garden. The west wall of the room was lined with built in benches covered with upholstered seat cushions and pillows. The south end of the room had an opening that looked out to the valley and Camelback Mountain beyond. The grand piano that was originally in the Drafting Studio was moved to the south end of the Garden Room and next to it stood lovanna's harp. Throughout the room there were also small wooden hassocks with cushions for additional seating.²⁹

The Garden Room connected on the north side to the Wrights' private living quarters. The Living Quarters were completed in 1940 and included bedrooms for the Wrights and their daughter, a gallery, a sitting room with a fireplace, a small kitchen, and a bathroom. Later on Wright added a lanai onto the east end that was open to the garden. The north wall of the Wrights' Living Quarters was solid desert masonry, while the south side was opened up to a large green garden with flowers and plantings that was enclosed on the south and east by desert masonry walls to allow for privacy. Openings on the south wall of the gallery were covered with operable canvas flaps that could be opened to let in the desert sun and breezes and allow for views out to the garden. The bedrooms could be closed off from the gallery with canvas doors. The ceiling height in the bedrooms was higher than in the gallery and there was a clerestory with canvas panels that could be opened for light and ventilation.³⁰



Figure 6-21 - Interior of Garden Room, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

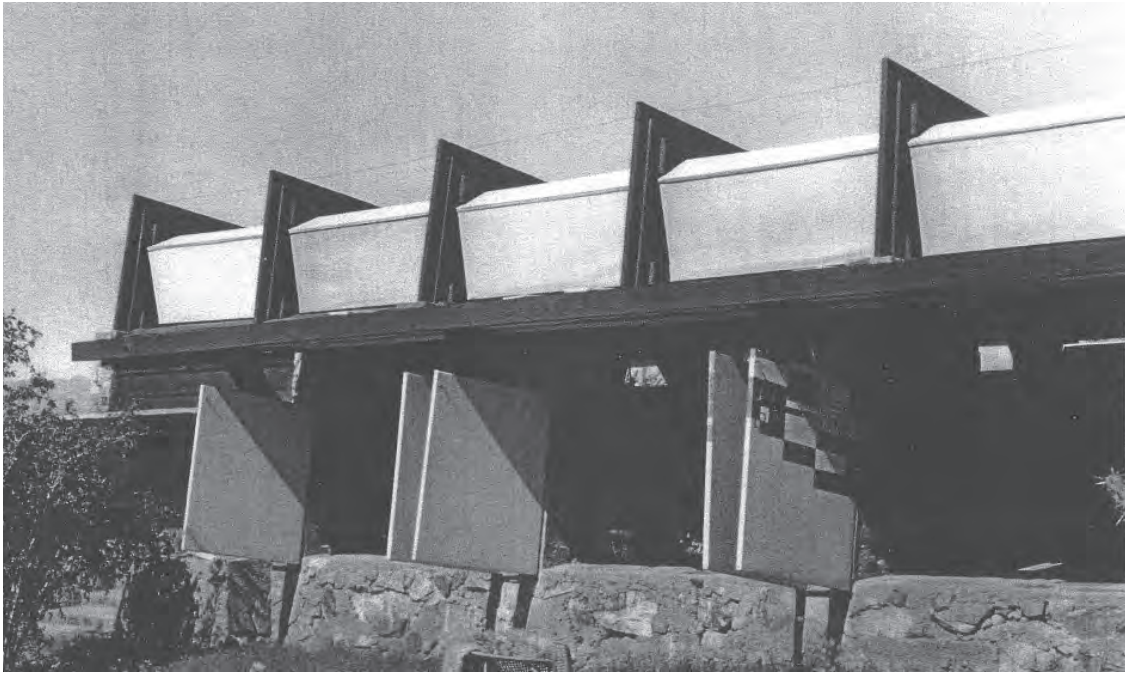


Figure 6-22 - East side of Garden Room, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-23 - Interior of Wrights' Living Quarters, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

The Apprentice Court

Living quarters for the apprentices were constructed north of the Wrights' Living Quarters in what became known as the Apprentice Court. The Apprentice Court originally contained fourteen rooms, three for women and eleven for men wrapped around a central court. There were also toilet and shower facilities for both men and women. The central court had a badminton court and a large chess board with alternating squares of concrete and gravel. Construction of the Apprentice Court began in the Spring of 1940 and was completed the following spring. The rooms were enclosed by walls of desert masonry and wood with openings covered by canvas flaps. With the completion of the Apprentice Court, many of the more senior apprentices were able to move from primitive tents in the desert to more comfortable quarters.³¹

During the winter of 1940-41, Taliesin West experienced an unusually high volume of rainfall and the canvas roofs that had been relatively successful the first few seasons proved to be largely inadequate at keeping out the water during the many heavy downpours that occurred. Wright immediately set out to reconfigure the roof systems on the Office, Drafting Studio, and Garden Room to better accommodate the rainy weather. His solution was to increase the size of the internal gutters and to replace the canvas panels at the center of the roofs with a band of lapped 1x12 redwood boards that ran the length of the roof on each structure. While the solution proved better at keeping the water out than the initial design, the roofs still leaked during heavy rain storms.

In the spring of 1941, The Guest Deck was completed which included a series of guest rooms built on the roof deck over the loggia. Each room was small and contained a twin size bed and a small closet with a canvas door. On the south side of each room was a pair of canvas-covered doors that could be closed for privacy. The doors opened up onto a deck space with remarkable views out to the valley and Camelback Mountain in the distance.³²

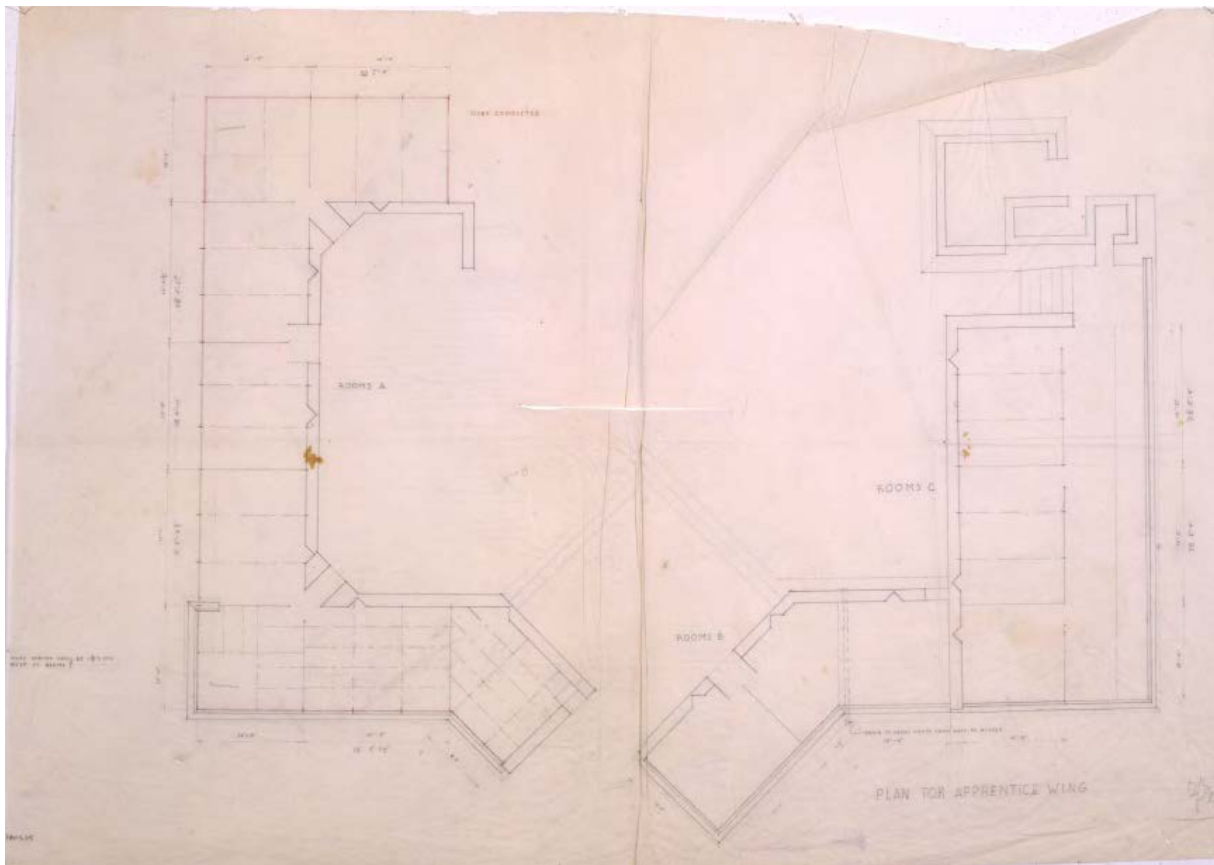


Figure 6-24 - Plan of Apprentice Court (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-25 - Apprentices Court, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

1941 – World War II

December of 1941 brought about the beginning of the United States' involvement in World War II. Most of the young men in the Fellowship were eligible for the draft. Wright and many of the apprentices actively opposed the draft and a number of the apprentices were tried and jailed for refusing to report to serve in the army. Others reluctantly reported for duty and some went off to war. For those that remained much of the winter of 1941-42 was spent making alterations and repairs to the buildings around camp and working in the Drafting Studio. One of Wright's projects, ironically given his anti-war sentiments, was to design wartime housing for a site near Pittsfield, Massachusetts. This housing project was never completed however. The following winter (1942-43), Wright and the apprentices who were left did not make the annual trip to Arizona and instead spent the winter battling the cold and snow in Wisconsin. Wright spent much of the winter holed up inside Taliesin working on Books Five and Six of his autobiography. During the war years, the Fellowship numbers dwindled, little work was completed, and Taliesin West remained unchanged.³³

Post War Boom

Following the war, projects began to come in and Wright was once again quite busy and he needed help. Apprentices quickly began to arrive, some new and some returning, all of them eager to learn from the master. Taliesin West underwent some much needed repairs and alterations in the winter of 1946-47. The lapped wood boards that had been installed on the Drafting Studio, Office, and Garden Room in 1941 were removed and replaced with a new configuration of canvas panels. The south wall of the Drafting Studio was pulled back to create a walkway under the wood trusses and the Water Tower was constructed on the north side of the Wrights' Living Quarters. At that time the wood bridge connecting the Guest Deck to the roof of the Kiva was removed and reconstructed in desert masonry.³⁴

The Introduction of Glass

The most significant change following the war was the introduction of glass in some areas. Wright was initially adamant that Taliesin West was a camp and that there would be no glass. However, he had changed his mind by 1945, and wrote to the Pittsburgh Plate Glass Company to express his desire to add glass to the buildings at Taliesin West:

"The camp, when thus converted from canvas overhead to glass, will not only be a bewilderingly beautiful thing, of which we may all be justly proud, but glass will have invaded the desert spaces in a way and on a scale not seen before..."³⁵

According to Bruce Brooks Pfeiffer, it was Olgivanna Lloyd Wright that convinced her husband to install glass when she told him of a dream she had of the two of them looking out on a storm over the desert through large walls of glass.³⁶ In 1946, Wright had glass added to the clerestories on the north side of the Drafting Studio and east side of the Garden Room. Continuing throughout the late 1940s and early 1950s, glass was added to many of the buildings at Taliesin West, creating a transparency that had previously not existed and enclosing the buildings from the exterior climate. Whether it was due to his wife's convincing or by his own conviction, the introduction of glass had a profound effect on the character and architecture of Taliesin West and began the transition from desert camp to permanent settlement. In addition to the introduction of glass, the Garden Room was redecorated with new rugs and furnishings and many of the desert plants, such as the staghorn and prickly pear cacti, were removed and replaced with non-native plantings. Former apprentice, Curtis Besinger, described the changes as follows, "It had lost much of its large and bold, archaic quality. It was no longer a camp. Its scale had been changed by the introduction of smaller-scale elements. It had become domesticated and civilized."³⁷



Figure 6-26 - Garden Room looking north after glass installed at clerestory and north wall, ca. 1948 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Sun Cottage

The winter of 1948-49 saw the first new construction at Taliesin West since before World War II. Wright wanted to build new accommodations for Lovanna so he demolished the Sun Trap except for the fireplace and some of the concrete floor and built a new structure that was called the Sun Cottage. The completed building included an apartment for Lovanna, with a living room, bedroom, small kitchen, and bath and included a guest apartment with a large sitting room, two small bedrooms, and a bathroom.



Figure 6-27 - Living room in Sun Cottage, 1950 (Getty Images - Julius Shulman, photographer)

The Cabaret

With the influx of all the new apprentices, the Kiva could no longer hold all the members of the Fellowship comfortably. So, the same year the Sun Cottage was built, the apprentices began work on the construction of the Cabaret, which proved to be quite challenging. To complete the theater, the apprentices had to dig a large hole in the ground. This was extremely difficult to do by hand as much of the ground was solid caliche, which is a hard layer of sand and clay cemented together with calcium carbonate and other minerals. After a number of failed attempts by the apprentices, Wright hired a bulldozer to come out from Phoenix to excavate the site. Once this was complete, the apprentices began forming the desert masonry walls. The greatest challenge on the Cabaret was the construction of the roof slab. It was designed with conventional sizes and spacing for steel reinforcing bar; however, Wright insisted that the roof slab have large stones in it to be consistent with the appearance of the walls. Because of this, he “replaced conventional reinforcing with only 2 large bars, about one inch square in each bay. They were placed to make an X in each bay.”³⁸ The formwork was left in place during the summer of 1949 so that the concrete could achieve ultimate strength before removing it. The following winter, when the apprentices arrived back at camp the formwork was removed and large cracks appeared in the slab. Worried that the roof would not hold, Wright's solution was to add a series of inverted concrete beams above the slab.³⁹

The Cabaret was completed in December of 1950, just in time for Christmas Eve dinner. The finished building included a large theater space with tiered seating. Each row of seating faced the movie screen at the front of the room and had a built in counter so that meals could be served during film screenings. Wright loved to watch movies and it was almost a ritualistic social activity. Through his granddaughter, actress Anne Baxter, Wright was able to access many new films of the time. He was fascinated by the relationship of the soundtrack to the visual images and had the projectors modified so that the visual display of the soundtrack could be viewed along side the image. Some might have found it distracting, Wright found it fascinating. Gene Masselink kept detailed records of what films were shown when.



Figure 6-28 - Exterior of Cabaret, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-29 - Inside Cabaret showing corridor with operable canvas panels and theater space, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

A sunken orchestra pit below the screen featured a large grand piano. The long narrow corridor that led to the back of the theater had a series of openings on the east side that were fitted with operable red canvas flaps.⁴⁰ With a new theater constructed, the Kiva was renovated into a library for the Fellowship. The stepped seating and tables were removed; however, the benches around the perimeter were left intact. New wood pendant lights were added at the ceiling as well. Also, around this same time, the west half of the loggia was enclosed with glass windows and wood base wall between the masonry piers to create a new, larger dining room for the Fellowship, which had outgrown the Original Dining Room. The Original Dining Room, in turn, became a private dining space for the Wrights to entertain clients and guests.

Taliesin West Connects to the Grid

In the Winter of 1951-52, Taliesin West was added to the local electrical power system. Power lines had started going up a few years earlier to the dismay of Frank Lloyd Wright, and at one point he threatened to abandon Taliesin West, uproot the Fellowship, and move to a new site far away from the unsightly towers being erected across the Paradise Valley. Wright, inevitably decided to stay put and take advantage of the electricity that was now available to him. With electricity came new, more permanent light fixtures including in the Drafting Studio, where decorative wood pendant lights were added. Additionally, with the elimination of their own generator, Wright made changes to the Shops. The Shops had been constructed in 1939 and housed the camp's generator. It had remained largely unaltered since its construction, so with the noise and exhaust fumes from the generator now gone, Wright began making improvements including pouring a concrete slab floor, expanding the roof, and installing a gas-fired kiln in the pottery shop. That same winter a new men's locker room was built on the west side of the Shops. It provided the apprentices with new shower and toilet facilities as well as more storage space for those apprentices living in tents.⁴¹

Renovations to the buildings and landscapes at Taliesin West continued throughout the 1950s with alterations to the Garden Room, Original Dining Room (now called the Board Room), Studio, Dining

Room, Water Tower, and Light Tower. In the early 1950s, the east terrace off of the Garden Room, which had previously been covered with a canvas awning, was enclosed with a permanent roof and glass to create more interior space. The massive, desert masonry fireplace was also added to the Garden Room around this same time. In the Original Dining Room, the opening on the south side of the room was increased and concrete steps were added on the exterior to access the room. The skylight was also changed from canvas to glass, and desert masonry columns were added on the interior to help support the roof structure.⁴² In the Studio, the walkway that had been added along the south wall was removed and that space was re-purposed for drafting desks. Sliding glass windows were also added along the south wall. Additionally, the roof of the Water Tower was reconstructed and fountains were added on the east side of the Light Tower and in the plaza outside the Office.

The Pavilion

The late 1950s brought major changes at Taliesin West beginning with the design and construction of the Movements Pavilion. Even before meeting Frank Lloyd Wright, Olgivanna Wright had a long time relationship with the spiritual leader Georges Ivanovich Gurdjieff who espoused a school of self-awareness based on what he called the “Fourth Way” or “The Work”. A key component of his teachings involved the “Movements” which could be seen as a form of dance or dance therapy. It was something in which Olgivanna excelled. Although she eventually drifted from Gurdjieff, who died in 1949, she continued her love of movement and dance. She and Iovanna had been asking Wright to build them a performance space for a number of years, and in 1954 he set to work designing and later constructing the new Pavilion on the east side of the Cabaret. The Pavilion was completed in 1957 and constructed with desert masonry piers that supported a roof structure of built-up redwood framing with fabric panels, similar to the construction of the roof on the Drafting Studio. It featured rows of tiered seating with a large stage in front.

The following year, in 1958, the roofs on the Drafting Studio, Office, and Garden Room were taken down and reconstructed. The built-up wood members were completely rebuilt with steel flitch plates to add rigidity to the roof structure and new internal metal gutters were added. At the same time, the planter on the southeast side of the Drafting Studio was enclosed in a glass solarium and the Dining Room was expanded with a new metal framed glass enclosure on the north side.⁴³



Figure 6-30 - Exterior of Pavilion, ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

1959

In 1959, nearing the end of his life, Wright continued to make significant changes, especially to the landscape of Taliesin West. He drew up a new design to reroute the entry drive so that visitors would have a more direct view of the prow and buildings as they approached. He also laid out a plan for a new orchard to be planted north of the Drafting Studio.⁴⁴ Frank Lloyd Wright died on April 9, 1959 at the age of 91; however, his legacy lived on through Olgivanna Lloyd Wright and the loyal apprentices that continued his work long after his death.



Figure 6-31 - Aerial view of Taliesin West showing new entry drive and area cleared for orchard, 1959 (Pedro Guerrero)

Continuing Wright's Legacy

Upon Frank Lloyd Wright's death, leadership of the Taliesin Fellowship transferred to Olgivanna Lloyd Wright. The senior apprentices, under the leadership of Wes Peters, who was Wright's former son-in-law, continued Wright's architectural practice, renaming it the Taliesin Associated Architects. Olgivanna Lloyd Wright and the senior apprentices also carried out the changes at Taliesin West begun by her husband, and later, made more significant changes to make the buildings more livable for year round habitation. In the 1960s, renovations began on Olgivanna Lloyd Wright's private living quarters as well as on the Sun Cottage, which was reconstructed in steel and fiberglass panels replacing wood and canvas.⁴⁵ Olgivanna Lloyd Wright later commissioned a large addition to her living quarters which included a large closet and lower room (now the Finance Office). Additionally, at this time two new buildings were constructed to the east of the Sun Cottage. The Atrium, which was constructed adjacent to the Sun Cottage, was designed and built as a large open room with a large rectangular opening in the roof. The space was enclosed by decorative concrete panels with colored glass. The East Wing was built directly east of the Atrium as a dormitory for the apprentices.⁴⁶

Pavilion Fire

In September of 1963, a massive fire destroyed the entire roof structure of the Pavilion. The desert masonry piers and walls were the only elements left standing when the fire was finally extinguished.⁴⁷ Reconstruction of the Pavilion began shortly after the debris was cleared. For the new Pavilion, the senior apprentices chose to construct the roof framing of painted steel instead of wood and rigid fiberglass panels instead of fabric. The new Pavilion was completed in 1964 and once again was open for performances. Fire also struck the Apprentice Court a few years later in 1966 and destroyed the entire east half of the apprentice apartments except the desert masonry walls. Following the fire, the east side of the Apprentice Court was rebuilt using steel construction.⁴⁸ Also, in the mid-1960s, the fabric roof panels in the Drafting Studio, Office, and Garden Room were replaced with fiberglass panels.⁴⁹

1970s

The 1970s brought about additional renovations at Taliesin West. The most significant update came in 1970. The wood structure of the Guest Deck had been sagging and causing concern about its structural integrity. Because of this, the senior apprentices decided to demolish the entire Guest Deck over the Kitchen and Dining Room and reconstruct it in steel. This was a complex project and required a professional construction crew as well as a crane to mount the steel structure in place. The entire Guest Deck was demolished down to the desert masonry and the original wood framing was replaced with steel. The Kitchen and Dining Room were also renovated at this time and the pergola on the north side of the Drafting Studio was rebuilt in steel ten inches higher than it was originally constructed. Everything was removed and rebuilt except the desert masonry walls and piers. The completed Guest Deck, although painted metal instead of wood, had generally the same appearance as the original; however, a number of key dimensions such as ceiling heights were changed.

Additionally, beginning in the early 1970s, there was new construction east of Olgivanna Lloyd Wright's living quarters. The new complex of buildings included apartments for Richard Carney and John Hill, the Tower Room, as well as living quarters and a medical clinic for Dr. Joseph Rorke.⁵⁰ These new structures were designed to stay within the same architectural aesthetic as the older buildings designed by Wright, but in a number of ways had a negative impact on the views and special flow of the original complex. Also at this time, the Fellowship Pool was constructed on the north side of the Apprentice Court. Furthermore, by the 1970s, the plantings and palm trees at Taliesin West had become overgrown and the site had the appearance of a lush oasis in the midst of the Arizona Desert. The large palm trees and overgrown plants were eventually removed and new, smaller scale shrubs and trees were planted throughout the site.



Figure 6-32 - Reconstructed Pavilion ca. 1965 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-33 - Reconstruction of the Guest Deck in 1970 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-34 - Olgivanna Lloyd Wright (left) and the Taliesin Fellowship ca. 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 6-35 - Drafting Studio with fiberglass roof panels, ca. 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

The 1980s saw further renovations and upgrades at Taliesin West. With the steady growth in tourism at the site over the decades since Wright's death, a new bookstore and ticket office was constructed near the Shops. Other new structures in the 1980s included the Student Lounge (now Reading Room) and the Crescent Housing. There were also renovations to the Drafting Studio (added fluorescent lighting in soffit above the north doors), Office and Living Quarters (damaged concrete floors were replaced with new concrete floors), and Pavilion (back of house spaces renovated for new Fellowship Library).⁵¹ Changes also came to the Taliesin Fellowship. In the 1980s steps began to be taken to formalize the apprenticeship program into an accredited school of architecture, which resulted in the creation of the Frank Lloyd Wright School of Architecture in 1985 that continues to operate to this day.

1985

On March 1, 1985, Olgivanna Lloyd Wright died in Arizona. Olgivanna Lloyd Wright had carried on the Taliesin Fellowship and her husband's legacy since the time of his death over 25 years earlier. Under her leadership the Fellowship continued to grow and prosper and Taliesin West underwent significant changes to transform it from a seasonal camp to a permanent home and workplace. Only a month prior to her death, Olgivanna Lloyd Wright had stepped down as head of the Taliesin Fellowship, a position she had held since her husband's death in 1959.⁵² With Olgivanna Lloyd Wright's death, Wes Peter's assumed leadership of the Fellowship and the school until his own death in 1991.

Renovation of the existing buildings at Taliesin West continued in the 1990s and early 2000s. In 1991, Taliesin Architects renovated the Garden Room, removing a storage room added on the south end of the building and upgrading the mechanical systems. In 1998, the roof systems on the Drafting Studio, Office and Garden Room were rebuilt. Deteriorated wood framing members were removed. The steel fitch plates that dated from the 1958 renovation were left in place and the wood members were installed in place over top of them as done in 1958. The acrylic roof panels were replaced with a new system with a sheet of acrylic on the exterior, canvas on the interior, and foam insulation board in between. As of 2014, this roof system is still in place.⁵³

2000s

In 2003, there was a major effort, led by Legacy Fellow Arnold Roy, to restore the Living Quarters back to the period when Frank Lloyd Wright lived there. All alterations and additions made by Olgivanna Lloyd Wright after her husband's death were reversed during the project, including added walls and enclosures. A covered porch added by Olgivanna Lloyd Wright on the north side of the Living Quarters was removed and the openings in the desert masonry wall to access it were infilled with new desert masonry to match the original. A pool, built for Olgivanna Lloyd Wright at the south end of the Garden, was demolished and filled in and the garden wall was restored to its original location. Beginning in 1998, with Richard Carney's apartment and continuing into the 2000s, the buildings on the east side of the Wright Living Quarters that housed apprentices and Dr. Joseph Rorke's apartment and medical clinic have been renovated for use as administrative offices for the Frank Lloyd Wright Foundation.⁵⁴

Today

Taliesin West is presently the home to the Frank Lloyd Wright School of Architecture from mid-October to mid-May. Although education on the site has become more formal since Wright's time, his legacy and philosophies on architecture and design still influence the education of students in the program today. Taliesin West also functions as a tourist attraction throughout the year. Over 100,000 guests come annually from all over the world to learn about Frank Lloyd Wright and his winter home and studio in the Arizona desert. The site is also home to the surviving Taliesin Fellowship members, Frank Lloyd Wright Foundation administration and staff, and hosts numerous events and community programs. Through its continued use, the history and legacy of Taliesin West and Frank Lloyd Wright lives on and its remarkable influence endures.



Figure 6-36 - Inside the restored Wright Living Quarters, 2014 (Harboe Architects)

Endnotes

- 1 Frank Lloyd Wright, *An Autobiography* (New York: Duell, Sloan and Pearce, 1943), 310.
- 2 Ibid, 311.
- 3 Wright, *An Autobiography*, 310.
- 5 Ibid., 452.
- 6 Ibid., 453.
- 7 Don Meserve, "Ancient Peoples in Scottsdale from the First Hunters and Gatherers Through the Hohokam Culture – An Overview of Scottsdale's Prehistoric Sites" (Report prepared by AICP, Preservation Division, Scottsdale, Arizona, 2003).
- 8 Ibid.
- 9 Avi Buckles and Mark L. Chenault, "A Class III Cultural Resources Inventory of Taliesin West, Scottsdale, Maricopa County, Arizona: Taliesin West Archaeological Survey" (Report prepared by WestLand Resources, Inc. for the Frank Lloyd Wright Foundation, August 3, 2007).
- 10 Ibid.
- 11 Western Union Telegram from Frank Lloyd Wright to Eugene Masselink. December 30, 1937.
- 12 Neil Levine, "The Traces of Prehistory at Taliesin West," *The Architecture of Frank Lloyd Wright* (Princeton, NJ: Princeton University Press, 1996), 263.
- 13 Frank Lloyd Wright, "Living in the Desert," *Arizona Highways* (October 1949): 12
- 14 Levine, "The Traces of Prehistory at Taliesin West," 263.
- 15 Curtis Besinger, *Working with Mr. Wright: What It Was Like* (Cambridge, UK: Cambridge University Press, 1995), 47.
- 16 Levine, "The Traces of Prehistory at Taliesin West," 290.
- 17 Philip Johnson, *Writings* (New York: Oxford University Press, 1979), 196-198. Original article, "100 Years, Frank Lloyd Wright and Us," published in *Pacific Architect and Builder* in March 1957.
- 18 Ibid., 43-44.
- 19 Bruce Brooks Pfeiffer, *Frank Lloyd Wright Selected Houses vol. 3: Taliesin West* (Tokyo: A.D.A. Edita, 1989), 13.
- 20 Ibid.
- 21 Ibid.
- 22 Wright, *An Autobiography*, 454.
- 23 Pfeiffer, *Frank Lloyd Wright Selected Houses*, 13-15.
- 24 Besinger, *Working with Mr. Wright*, 43-51.
- 25 Ibid., 57.
- 26 Ibid., 108-109.
- 27 Wright, *An Autobiography*, 455.
- 28 Besinger, *Working with Mr. Wright*, 52.
- 29 Ibid., 68.
- 30 Ibid., 59-64.
- 31 Ibid., 72-73.
- 32 Ibid., 104-107.
- 33 Ibid., 142-145.
- 34 Ibid., 161-171.
- 35 Pfeiffer, *Frank Lloyd Wright Selected Houses*, 19.
- 36 Ibid.
- 37 Besinger, *Working with Mr. Wright*, 162.
- 38 Ibid., 196-199.
- 39 Ibid.
- 40 Ibid., 208-210.
- 41 Ibid., 233-234.
- 42 Interview with Arnold Roy, June 16, 2014.
- 43 Ibid.
- 44 Pfeiffer, *Frank Lloyd Wright Selected Houses*, 21.
- 45 Ibid., 30.
- 46 Taliesin Associated Architects Project Records.
- 47 "Fire Sears Taliesin West," *Arizona Republic*, September 27, 1963.
- 48 Taliesin Associated Architects Project Records.
- 49 Interview with Arnold Roy, June 16, 2014.
- 50 Taliesin Associated Architects Project Records.
- 51 Interview with Arnold Roy, June 16, 2014.
- 52 Wolfgang Saxon, "Olgivanna Lloyd Wright, Wife of the Architect, Is Dead at 85," *New York Times*, March 2, 1985.
- 53 Interview with Arnold Roy, June 16, 2014.
- 54 Taliesin Associated Architects Project Records.

7. CONSTRUCTION CHRONOLOGY

This chronology provides an organized timeline of construction at Taliesin West starting in 1938 and continuing through present day. The construction chronology was based on historic documentation, Frank Lloyd Wright Foundation records, historic photographs and drawings, publications on Taliesin West, and oral histories of surviving members of the Fellowship. It should be noted that there are thousands of photographs of Taliesin West taken during Wright's lifetime and after. Unfortunately, most of them are undated. Therefore, many of the dates given are with a circa date that is based on the other known facts or confirmed dates from other sources.

The following construction chronology is organized by building component. There is a chronology at the end of this chapter that lists key events and developments for the site and landscape features at Taliesin West.

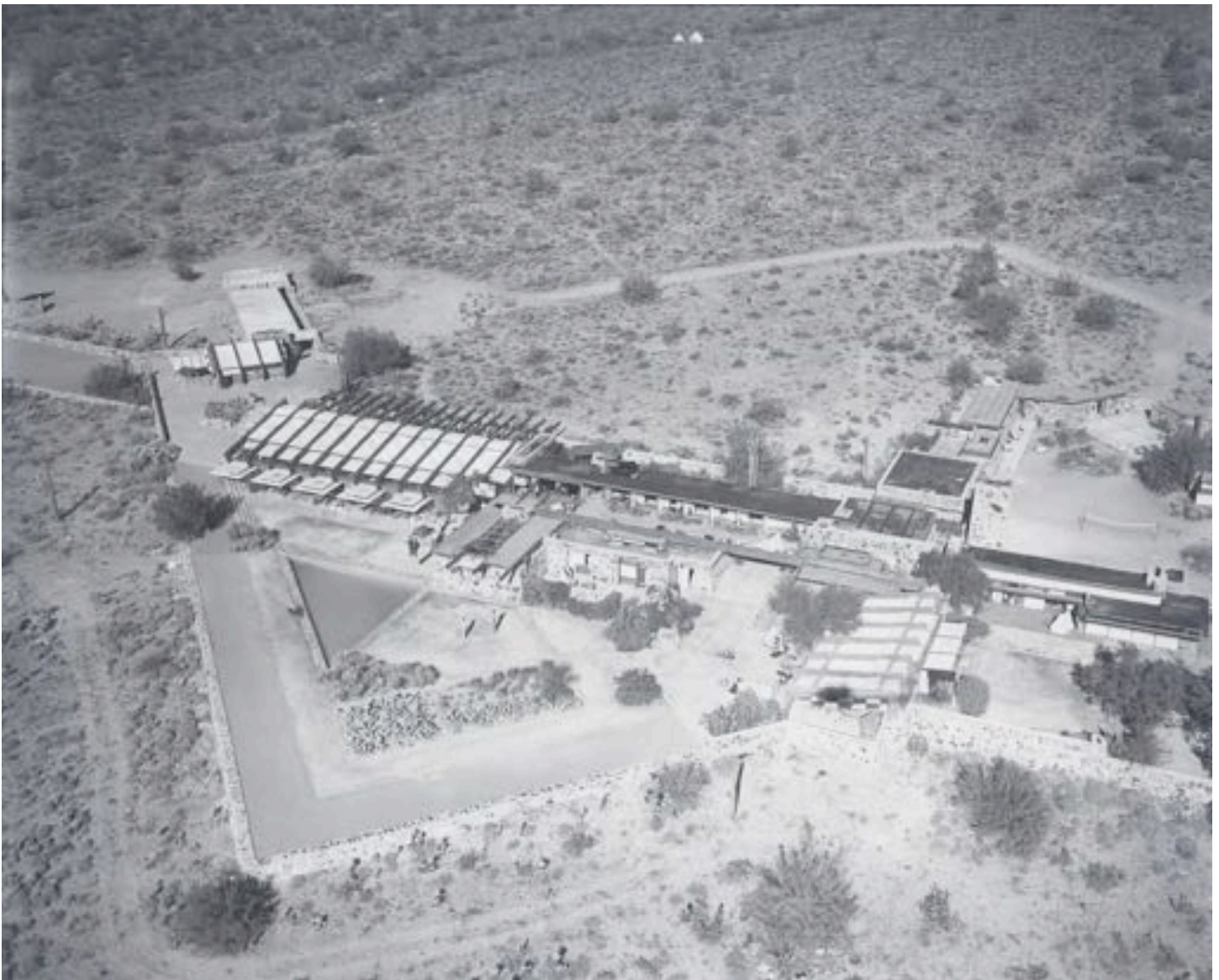


Figure 7-1 - Aerial view of Taliesin West, ca. 1949 (Dorothy & Herb McLaughlin Collection, Arizona State University Archives)

WRIGHT'S OFFICE

Winter 1938 – 1939:

- Wright's Office was constructed with desert masonry walls, redwood trusses, and canvas panels at the roof, window and door openings.

Winter 1940-1941:

- The roof system was redesigned. A band of lapped 1x12 redwood boards was added at the center of the roof. The banded boards terminated with upturned ends.

Winter 1946-1947:

- Roof on the Office was reconfigured with new canvas panels. Lapped wood boards were removed and larger sections of canvas were used.

Late 1940s:

- Glass was added at the clerestory openings in Wright's Office.

Early 1950s:

- Canvas roof panels were replaced with new canvas in a new configuration.

1958:

- The roof on the Office was completely reconstructed. New wood beams with steel fitch plates were constructed and canvas panels were replaced with new fabric panels.

Mid-1960s:

- Fabric roof panels were replaced with fiberglass panels.
- A louvered wood door was added on the west side of the Office.

Mid-1980s:

- The concrete floor in the Office was removed and reconstructed with integrally colored concrete.
- Louvered wood door was replaced with a metal and glass door.

Early-1990s:

- Fiberglass panels were replaced with acrylic panels.

1998:

- The roof on the Office was reconstructed. All wood structural members and acrylic panels were removed. The steel fitch plates and gutters were retained and new wood members were installed to create the built-up beams. A new roof system of exterior acrylic panels and interior canvas panels was installed.



Figure 7-2 - Frank Lloyd Wright's office ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-3 - West end of Frank Lloyd Wright's office ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-4 - Interior of Frank Lloyd Wright's office looking northeast, 1950 (Ezra Stoller)



Figure 7-5 - Interior of Frank Lloyd Wright's office, looking west, ca. 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

DRAFTING STUDIO

Winter 1938 – 1939:

- The Drafting Studio was constructed. The first element to be constructed in desert masonry was the vault at the west end of the studio. Desert masonry piers were constructed which supported a roof structure of large redwood trusses. Spanning between the roof trusses were operable canvas panels. The Drafting studio was originally open on the north side to the pergola.

Winter 1940-1941:

- The roof system was redesigned. Galvanized steel gutters were added to the wood beams to drain rainwater. A band of lapped 1x12 redwood boards were installed at the center of the roof. The banded boards terminated with upturned ends.

1943 – 1945:

- Canvas panels were removed and reinstalled each season. Wright redesigned the panel system each time.
- Lapped wood boards were added on the south wall of the Drafting Studio.

Winter 1946 – 1947:

- The roof on the Drafting Studio was reconfigured with new canvas panels. The lapped wood boards were removed and larger sections of canvas were installed.
- The built-up wood structural members at the roof were redesigned and rebuilt.
- The south wall of the Drafting Room was pulled back to create a walkway.
- Glass was added at the north clerestory windows.

Winter 1948 – 1949:

- A door was added in the opening between the Drafting Studio and the Kitchen.
- Canvas awnings were added on the south side of the Drafting Studio to shade the terrace.

1950 – 1951:

- The decorative wood light fixtures were added.
- The canvas awnings on the south side of the Drafting Studio were removed.
- New canvas panels were installed on the roof.

Mid-1950s:

- Wood frame infill walls with glass and painted flush wood doors were added along the north wall between the desert masonry piers.

1956-1957:

- Glass windows were added on the south wall of Drafting Studio.

1958:

- The roof on the Studio was completely reconstructed. New wood beams with steel fitch plates were constructed and canvas panels were replaced with new fabric panels.
- Glass solarium was added on the southeast side of the Drafting Studio.

Late 1950s:

- Floor inside Drafting Studio and the steps and terrace on the south side of the studio are painted red.

Mid-1960s:

- Fabric roof panels were replaced with fiberglass panels.

1970:

- The Pergola is rebuilt in steel and raised up 10 inches.

Summer 1973:

- The Fellowship was called back to Arizona to complete drawings for the restoration of the Arizona Biltmore following a fire. Air conditioning was added to the Drafting Studio.

Summer 1978:

- All fiberglass roof panels in the Drafting Studio were caulked; a Diathon roof coating was applied; and all exposed wood was painted.

Mid-1980s:

- Fluorescent lighting with egg crate diffusers added at the soffit above the north doors and glazing of the Drafting Studio.

Early-1990s:

- Fiberglass panels were replaced with acrylic panels.

1998:

- The roof on the Studio was reconstructed. All wood structural members and acrylic panels were removed. The steel fitch plates and gutters were retained and new wood members were installed to create the built-up beams. A new roof system of exterior acrylic panels and interior canvas panels was installed.



Figure 7-6 - Construction of the Drafting Studio, ca. 1938 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-7 - South side of Drafting Studio, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-8 - Inside Drafting Studio looking northwest, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-9 - Inside Drafting Studio with wood boards at the center of the ceiling, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

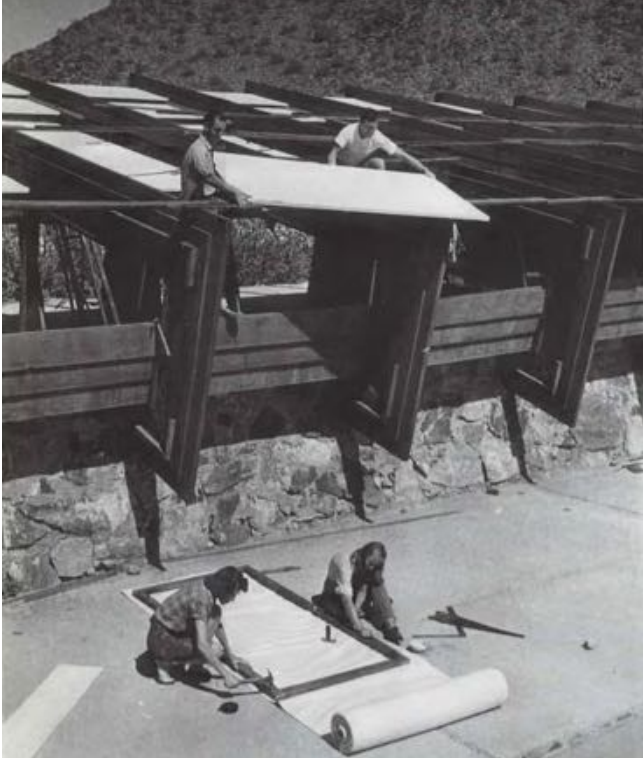


Figure 7-10 - Apprentices replacing canvas panels on the Drafting Studio, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-11 - Walkway on south side of the Drafting Studio, 1946 (Ezra Stoller)



Figure 7-12 - Easter dinner 1949 showing awnings over terrace on the south side of the Drafting Studio (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

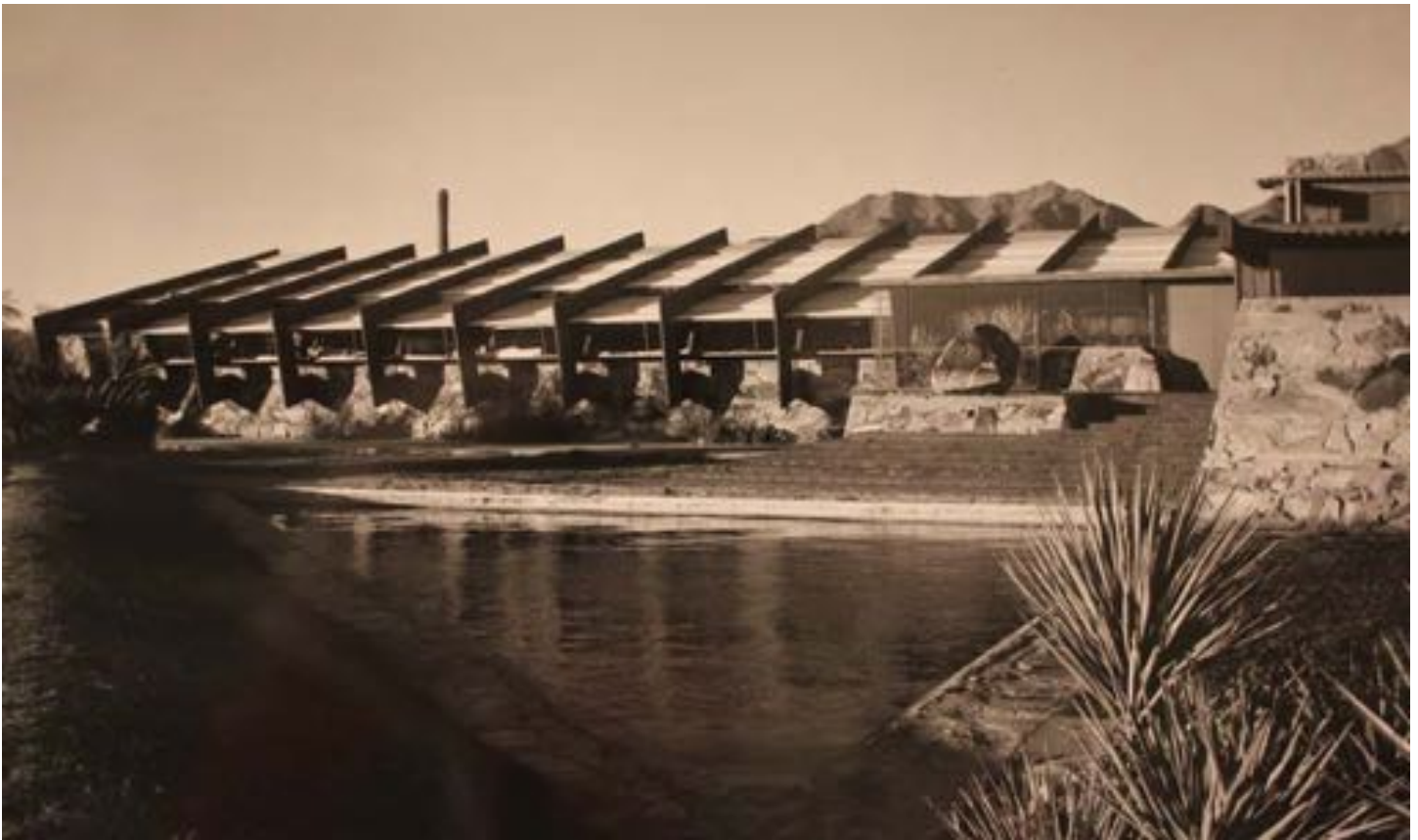


Figure 7-13 - South side of the Drafting Studio ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-14 - Interior of the Drafting Studio, ca 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-15 - Interior of the Drafting Studio, 2014 (Harboe Architects)

KITCHEN

Winter 1938-1939:

- Kitchen constructed as part of original complex of buildings. Constructed with desert masonry walls, concrete floors, and a flat roof supported by wood framing.

1950s:

- Glazing is added at the clerestory windows.

Fall 1963:

- Butcher block tables and wash sink donated by 3M were installed in the Kitchen.

1970:

- Roof structure in the Kitchen was reconstructed in steel.
- The Kitchen was enclosed. Prior to 1970 it was open to the outside above the dish wash area.
- A concrete deck was added above the cook line to accommodate roof top equipment.
- An exhaust hood was added above the cook line.
- Metal doors separating the kitchen from the Drafting Studio and Dining Room were added.

1990s:

- New exhaust hoods were added.
- A new walk in cooler box was installed. The original walk in cooler door was kept and retrofitted to new cooler.
- Ceiling mounted lighting was installed in the Kitchen.



Figure 7-16 - Inside Taliesin West Kitchen, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-17 - Inside Taliesin West Kitchen, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-18 - Inside Taliesin West Kitchen, 2014 (Harboe Architects).

BELL TOWER

1939 - 1940:

- The Bell Tower was constructed of a desert masonry base and a wood frame structure supporting the bell. The bell was used (and still used) to call the apprentices to meals.

Early 1950s:

- The wood framing was reconfigured and additional structure was added.
- The bell was replaced with metal gongs.

Late 1950s:

- The bell was reinstalled.

1970:

- The Bell Tower was reconstructed with a steel structure.



Figure 7-19 - Bell Tower, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-20 - Bell Tower, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-21 - Bell Tower, 2014 (Harboe Architects).

ORIGINAL DINING ROOM (BOARDROOM)

1938 - 1939:

- The Original Dining Room was constructed with desert masonry walls and a flat roof supported by redwood beams that extend beyond the south wall. An opening in the roof created a skylight covered by canvas panels. The decorative hanging wood "icicles" were added shortly after completion.

1946 - 1947:

- An opening was created in the south masonry wall and covered with operable canvas panels.

Late 1940s:

- Clear glass was added at the clerestory openings around the perimeter of the Original Dining Room.

Early 1950s:

- Desert masonry columns were added inside the Original Dining Room to reinforce the wood roof beams.
- The skylight in the Original Dining Room was changed from canvas panels to glass.

1951:

- Converted to private dining room following the enclosure of the loggia to create a new fellowship dining room.

1956-57:

- Opening on south side of room was enlarged to create a doorway.
- Stone steps were constructed on the exterior to access the room.

Late 1950s:

- Cove lighting was added by Arnold Roy under the direction of Frank Lloyd Wright.
- The floor was first painted red at this time.

Mid-1960s:

- The glass skylight was replaced with fiberglass panels.

1971:

- The clear glass at the clerestory on the east side of the room was replaced with mirrored glass following the enclosure of the adjacent terrace to expand Wes Peter's apartment.



Figure 7-22 - Original Dining Room, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-23 - Interior of Original Dining Room, ca. 1946 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-24 - Exterior of Original Dining Room, ca. 1947 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-25 - Exterior of Original Dining Room, ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-26 - Interior of the Original Dining Room ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-27 - Interior of the Original Dining Room ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

KIVA

Winter 1939:

- Exterior of the Kiva was constructed. Desert masonry was used for the walls and roof slab. It was originally used for storage during summer months.

Spring 1941:

- The interior was completed and a wood-framed projection room added onto the north side in 1941. The Kiva was used as a cinema for the Fellowship. A screen was installed over the fireplace on the south side of the room. Benches were installed around 3 sides of the room with ledges for dinner settings.

1949:

- Kiva was renovated from a theater into a library for the Fellowship.

Early 1950s:

- Decorative wood pendant lights were added on the interior.

Mid-1950s:

- Plywood cabinets were constructed on the southeast side of the Kiva at the niche where the piano was originally located.
- Desert masonry walls inside the Kiva were painted gold.
- Decorative ceramic Chinese frieze was installed above the entry to the Kiva.

Early 1960s:

- The concrete stairs to the Kiva roof were constructed on the west side of the building.
- The Kiva door was replaced with a new wood door installed inbound of the original door location. The desert masonry pier to the east of the original door was removed.

Mid-1980s:

- The concrete floor in the Kiva was reconstructed with integrally colored concrete.

1997:

- Interior renovation of the Kiva was completed. It included the replacement of wood trim around the perimeter of the room as well as at the ceiling cove. The wood pendant lights were also rebuilt at this time.



Figure 7-28 - Outside Kiva showing original wood bridge, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-29 - Frank Lloyd Wright, Olgivanna, and apprentices in Kiva, ca. 1942 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-30 - Choir practice in the Kiva, ca. 1942 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-31 - Outside the Kiva, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-32 - Interior of Kiva, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-33 - Outside the Kiva, 2014 (Harboe Architects).

WILLIAM WESLEY PETER'S & GENE MASSELINK ROOMS

Winter 1938-39:

- Rooms for William Wesley "Wes" Peters, Svetlana Peters, and Gene Masselink were constructed on the east side of the Original Dining Room (Board Room). The building was constructed of desert masonry walls with three openings with canvas flaps and a flat roof.

1950s:

- Wood and glass doors were added at the openings.

1971:

- Terrace outside Peters' apartment was enclosed in a steel and glass structure to expand the interior living space in the apartment.

1990s:

- The Peters apartment was converted to a conference room following Peter's death in July 1991.



Figure 7-34 - Peters rooms, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-35 - Peters & Masselink rooms, ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-36 - William Wesley Peters Conference Room, 2014 (Harboe Architects).

GARDEN ROOM

Winter 1939 - 1940:

- The Garden Room was constructed with desert masonry walls and a redwood built-up beam structural system supporting the roof. Canvas panels were installed at the roof and built-in seating along the west wall. The east wall was open with operable canvas panels.

Winter 1940-1941:

- The roof system was redesigned. A band of lapped 1x12 redwood boards were installed at the center of the roof. The banded boards terminated with upturned ends.

Mid-1940s:

- An awning was added over the patio on the east side of the room overlooking the garden.

1946 - 1947:

- The roof on the Garden Room was reconfigured with new canvas panels. The lapped wood boards were removed and larger sections of canvas were installed.
- Glass was added at the east clerestory of the Garden Room.
- The Garden Room was redecorated with new rugs and furniture.
- Glass was added at the north wall of the room.

1950:

- A fireplace was added on the east side near the south end of the room.

1952:

- The porch on the east side of the Garden Room is enclosed with a permanent roof and glass to make it part of the room and add more interior seating space. Originally this area was covered with a canvas awning and open on all sides.

1957:

- Fireplace was remodeled. New stones used in the fireplace were hand-picked by Wright and designed to protrude from surface.

1958:

- The roof on the Garden Room was completely reconstructed. New wood beams with steel fitch plates were constructed and canvas panels were replaced.
- Skylights are added.

Mid-1960s:

- Fabric roof panels were replaced with fiberglass panels.
- Heating and air conditioning system was added (1966).

1991:

- Major renovation of the Garden Room. The pool storage room was removed from southeast side of Garden Room; the fiberglass roof panels were replaced with white acrylic panels; glazing and skylights were replaced; new doors were installed; and a new HVAC system was installed under floor.

1998:

- The roof on the Studio was reconstructed. All wood structural members and acrylic panels were removed. The steel flitch plates and gutters were retained and new wood members were installed to create the built-up beams. A new roof system of exterior acrylic panels and interior canvas panels was installed.

2011:

- Built-in seating in the Garden Room was remodeled to Olgivanna Lloyd Wright period.



Figure 7-37 - Terrace outside the Garden Room ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-38 - Interior of the Garden Room ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-39 - View of Garden Room from roof of Wright Living Quarters, ca. 1947 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-40 - Interior of Garden Room looking north, ca. 1949 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-41 - Reconstruction of the Garden Room roof, 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-42 - Interior of the Garden Room, ca. 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

WRIGHTS' LIVING QUARTERS

Winter/Spring 1940:

- The Wrights' Living Quarters were completed. Prior to the completion of the new living quarters, Wright and his family lived in the Suntrap. The living quarters originally included bedrooms for the Wrights, a sitting room, dining cove, a small kitchen, and bathroom.

Late-1940s:

- Glass was added at window openings in the living quarters. These openings were previously covered in operable canvas panels.
- A Lanai was added on the east side of living quarters.

Winter 1953-54:

- Olgivanna Lloyd Wright's room was renovated to make it more lavish and less camp-like. It included painted plaster walls, mahogany plywood ceilings and cabinetry, wood doors, carpeting, and cork floors in the bathroom.

1969:

- Renovation of Olgivanna Lloyd Wright's Living Quarters. It included renovations to the Swan Cove and sitting room, and the addition of a new dressing room (closet), bathroom, lower room, and patio.

Mid-1980s:

- The concrete floor in the Wrights' Living Quarters was reconstructed with integrally colored concrete.

2003 - 2004:

- Restoration of Wright's Living Quarters. Changes made by Olgivanna Lloyd Wright after Frank Lloyd Wright's death were reversed and the living quarters were restored to their appearance during Frank Lloyd Wright's lifetime.



Figure 7-43 - View of the Wrights' Living Quarters from the Garden Room porch, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-44 - Interior of the Wrights' Living Quarters, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-45 - View of Wright's Living Quarters from the garden, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-46 - Interior of Wright's Room pre-restoration, ca 1985 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-47 - Interior of Wright's Room post-restoration, ca 2014 (Harboe Architects).

WATER TOWER

Winter 1946 - 1947:

- The Water Tower was constructed on the north side of the Wrights' Living Quarters. It was originally constructed of desert masonry with a flat wood roof.

1956 - 1957:

- A pitched roof with exposed wood truss structure was added to the Water Tower.
- Hanging wood "icicle" elements were added. These elements were removed after a couple seasons.

Spring 1959:

- Water Tower roof was renovated.



Figure 7-48 - Water Tower ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-49 - Water Tower ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-50 - Water Tower 2014 (Harboe Architects).

CABARET THEATER

Winter 1949 - 1950:

- Construction on the Cabaret started in the winter of 1949.

Winter 1950 - 1951:

- The Cabaret was completed in December 1950. It was constructed of desert masonry walls, roof and floor. The roof slab was reinforced by inverted beams above the slab. Originally open to exterior on corridor (east) side with operable red canvas flaps used at the openings. Original seating included tiered bench seats with long narrow tables.

1964:

- The seating in Cabaret Theater was reconfigured. Alternate rows of bench seating were removed to create more room for dining tables and chairs.

Mid-1960s:

- Fabric panels at the openings along the Cabaret entry corridor were replaced with plywood panels.
- The string lights were added at the ceiling.

Early 2000s:

- The desert masonry floor in corridor was covered with a concrete skim coat.



Figure 7-51 - Cabaret exterior ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-52 - Inside the Cabaret corridor with operable canvas panels, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-53 - Inside the Cabaret theater, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-54 - Entrance to Cabaret, 2014 (Harboe Architects).



Figure 7-55 - Cabaret Theater, 2014 (Harboe Architects).

DINING ROOM (ORIGINALLY LOGGIA)

1938 - 1939:

- What is currently the Dining Room was originally constructed as open air loggia. The loggia was constructed of desert masonry piers and wood columns that supported wood beams and exposed wood decking above. It was first used for weaving and for outdoor dining on long tables with bench seating.

1950:

- The Loggia was enclosed to create the new Fellowship Dining Room.

1958:

- Dining Room was expanded with new steel-framed glass enclosure on the north side.

1970:

- The Dining Room was demolished down to the desert masonry and rebuilt with a steel structure.

1980s:

- Wood veneer cabinets added along the northwest wall of the Dining Room.



Figure 7-56 - Taliesin West loggia, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-57 - Dining Room following its enclosure in 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-58 - Dining Room following the addition in 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-59 - Interior of the Dining Room, ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-60 - Interior of the Dining Room, 2014 (Harboe Architects).

GUEST DECK

Spring 1941:

- Guest rooms were constructed on the roof deck over the loggia (current Dining Room). The original structure was wood frame. Each room was a small compartment with one twin bed and a narrow closet for hanging clothes. The rooms had canvas panels that opened up the rooms onto the Guest Deck and were divided by wood board walls covered in canvas.

1970:

- The Guest Deck was demolished and completely reconstructed in steel framing.
- Individual bathrooms were added to each new guest room.

1984:

- Guest room at the east end of the Guest Deck (Guest Deck 4) was renovated.

2012:

- New painted plywood shutters were installed on the Guest Deck.



Figure 7-61 - Guest Deck, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-62 - Interior of guest room, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

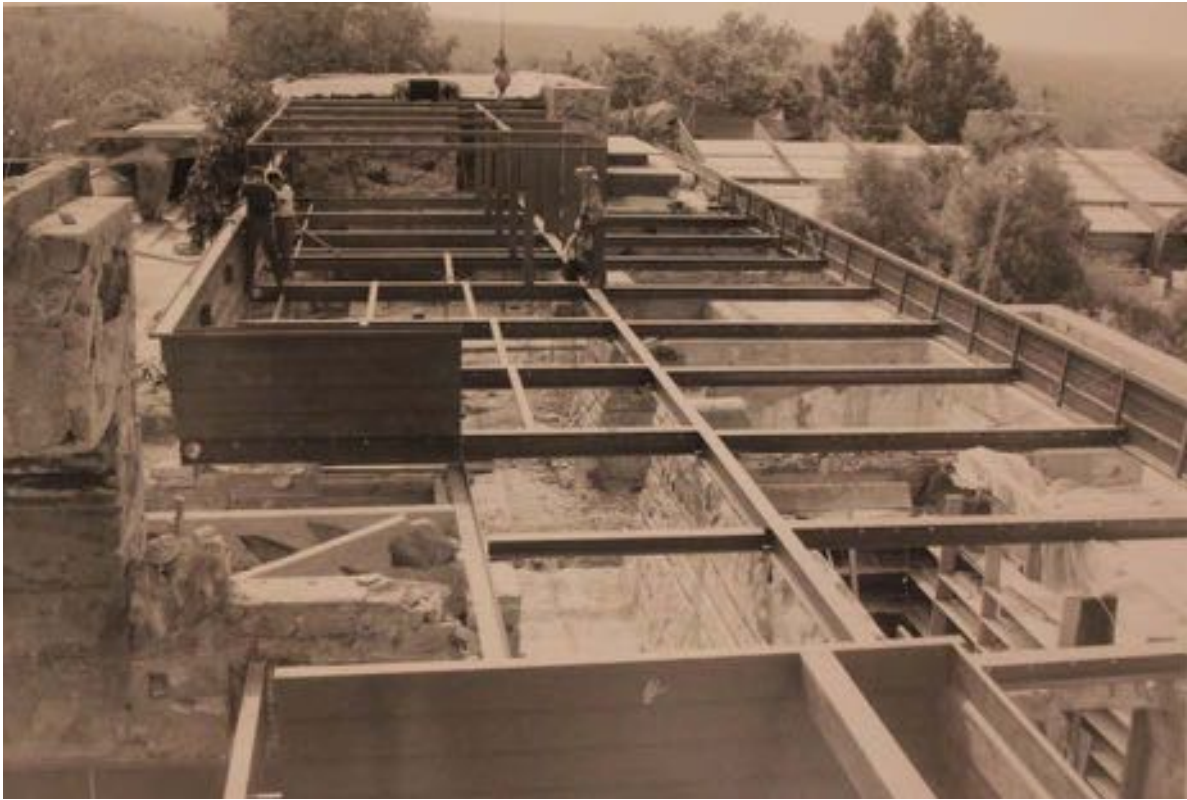


Figure 7-63 - Reconstruction of the Guest Deck ca. 1970 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-64 - Guest Deck, ca. 1975 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

APPRENTICE COURT

1940:

- Construction began on the Apprentice Court.

Spring 1941:

- Construction of the Apprentice Court was completed. It included 11 men's rooms, 3 women's rooms, a men's toilet & shower room, and a women's toilet room. Walls were desert masonry, roofs were flat with a wood frame structure, and canvas panels were used at window and door openings.

1942-1966:

- Interior renovations were made with each new occupant. Many added fireplaces, skylights, closets, built-in furniture, and glass at window openings.

1967:

- The east side of the Apprentice Court was reconstructed in steel framing following a fire.

Early 1970s:

- Fellowship Pool was constructed.

1970:

- Davison apartment renovation (Cornelia's apartment).

1974:

- Rattenbury apartment renovation.

1977:

- Christa apartment renovation. A studio was added to the apartment.

Late 1970s:

- Old Men's Locker Room was remodeled.
- Women's Locker Room was renovated and expanded.
- Trunk Room constructed on the north side of the Apprentice Court next to Fellowship Pool.

Mid-2000s:

- Women's Locker Room was renovated with new fixtures and finishes.

2012:

- John Rattenbury Apartment was remodeled. The roof structure was replaced due to significant deterioration from water infiltration.



Figure 7-64 - North side of the Apprentice Court, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-65 - Inside Bruce Pfeiffer's room in the Apprentice Court, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-66 - Apprentices relaxing on the terrace in the Apprentice Court, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-67 - Apprentice Court, 2014 (Harboe Architects).

SHOPS

1939:

- The Shops were constructed on west side of the camp. They were constructed with desert masonry walls and wood framed flat roofs.

1951-1952:

- A roof was built and floor slab poured for the pottery shop.
- Gas fired kiln installed in the Shops.

Mid-1960s:

- Renovations were made to Shops.

2014:

- Upgraded lighting in the Shops.



Figure 7-68 - Apprentices working in the Shop, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-69 - Inside the Shops, 2014 (Harboe Architects).



Figure 7-70 - In the courtyard outside the Shops, 2014 (Harboe Architects).

LIGHT TOWER

1939-40:

- The Light Tower was constructed. The tower consisted of a desert masonry mass with a painted steel gate attached.

1951:

- Steel light post and light fixture added to Light Tower.

1955:

- Fountain was added at Light Tower.

1985:

- Painted steel entry gate reconstructed.

2013:

- Workings of the lights were replaced with LED fixtures. The original metal reflectors were retained.



Figure 7-71 - Light Tower, ca. 1945 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-72 - Light Tower, ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-73 - Light Tower, 2014 (Harboe Architects).

MEN'S LOCKER ROOM

1952:

- New Men's Locker Room was constructed near the Shops. It included expanded toilet, shower, and storage facilities.

1956 - 1957:

- Men's Locker Room was renovated and enlarged.

1972:

- Men's Locker Room was renovated with new finishes and fixtures.

2011:

- Men's Locker Room was remodeled with new toilet and shower facilities. The roof structure and deck was rebuilt.



Figure 7-74 - Men's Locker Room bathroom, 2014 (Harboe Architects).



Figure 7-75 - Men's Locker Room student lockers, 2014 (Harboe Architects).

READING ROOM

1980:

- The Reading Room was constructed to serve as a student lounge.

2014:

- Damaged plaster at the soffits on the northwest side of the Reading Room was removed.



Figure 7-76 - Reading Room, 2014 (Harboe Architects).



Figure 7-77 - Inside the Reading Room, 2014 (Harboe Architects).

SUN TRAP/SUN COTTAGE

Winter 1937-1938:

- Sun Trap was constructed as a temporary shelter for Wright and his family. It started as group of sleeping boxes surrounding a central courtyard and gradually expanded with wood and canvas roof. The Wright's lived there until the completion of their living quarters in 1940.

1950:

- A concrete slab was poured on the east side of the Sun Cottage.

Winter 1948-1949:

- The Sun Trap was demolished and the Sun Cottage was constructed using some of the Sun Trap's original elements including the desert masonry fireplace. The new Sun Cottage contained a suite of rooms for Lovanna including living room, bedroom, small kitchen, and bath. Another guest suite contained a large sitting room, two small bedrooms, and a bathroom.

1960:

- The Sun Cottage was rebuilt with a steel structure and fiberglass panels.

1969:

- Sun Cottage interiors were remodeled. This included renovations to Lovanna's and her daughter Eve's apartments.

2014:

- The Guest Apartment was renovated.



Figure 7-78 - Sun Trap ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-79 - Exterior of Sun Cottage ca. 1948 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-80 - Interior of Sun Cottage ca. 1950 (Getty Images - Julius Shulman, photographer).



Figure 7-81 - Sun Cottage, 2014 (Harboe Architects).



Figure 7-82 - Inside renovated guest apartment in Sun Cottage, 2014 (Harboe Architects).

PAVILION

Winter 1953 - 1954:

- Wright began designing the Pavilion.

Spring 1955:

- Construction began on the Pavilion.

Spring 1957:

- Construction was completed on the Pavilion. The original Pavilion was constructed of desert masonry piers, wood trusses, and fabric infill panels.

Early 1960s:

- The fabric panels on the roof of the Pavilion were replaced with rigid plastic panels (Alsynite).

Fall 1963:

- The Pavilion was destroyed in a fire. Only desert masonry walls and piers were left standing.

1964:

- The Pavilion superstructure was rebuilt with steel framing and fiberglass roof panels following the fire.

1984:

- Some of the back of house spaces in the Pavilion were renovated for use as a new library.

1990:

- New flush wood doors painted red were installed at the south entrance to the Pavilion.



Figure 7-83 - Construction of the Pavilion ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-84 - Completed Pavilion, ca. 1957 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-85 - Performance in the Pavilion, ca. 1960 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-86 - Reconstructed Pavilion ca. 1965 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-87 - Inside the Pavilion looking at the stage, 2014 (Harboe Architects).

LIBRARY

1984:

- The sewing room, costume vault, and storage rooms surrounding the courtyard on the north side of the Pavilion were renovated to be used as the Library and Taliesin Architects archive.



Figure 7-88 - Entrance to Library from courtyard, 2014 (Harboe Architects).



Figure 7-89 - Inside the Library, 2014 (Harboe Architects).



Figure 7-90 - Inside the Library, 2014 (Harboe Architects).

ATRIUM

1961:

- The Atrium was constructed on the concrete slab on the east side of the Sun Cottage. The structure was original open with no glazing and enclosed on the south and east sides by concrete panels with inset stained glass.

2000:

- The Atrium was renovated and an addition was constructed on the north side of the building.



Figure 7-91 - Interior of the Atrium ca. 1961 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-92 - Interior of the Atrium addition, 2014 (Harboe Architects).

EAST WING

1961:

- The East Wing was constructed as new dormitory style rooms for apprentices.

2004:

- The East Wing was renovated from dormitory rooms into classrooms and a new model shop.



Figure 7-93 - East Wing, 2014 (Harboe Architects).



Figure 7-94 - East Wing classroom, 2014 (Harboe Architects).

ADMINISTRATIVE OFFICES (FINANCE OFFICE, DEKOVEN HILL OFFICE, DR. JOE OFFICE, CLINIC OFFICE, CARNEY OFFICE, & TOWER OFFICE)

1969:

- Additions are made to the east of Olgivanna Lloyd Wright's living quarters including a new lower room and dressing room (now Finance Office).

1970:

- Construction of Dick Carney's apartment (now Carney Office).

Early 1970s:

- Construction of Dr. Joseph Rorke's apartment (now Dr. Joe Office).

1972:

- Construction of Johnny Hill's apartment (now Dekoven Hill Office).
- Construction of Dr. Joseph Rorke's Medical Clinic (now Clinic Office).

1977:

- Construction of Tower Room originally intended for Olgivanna Lloyd Wright. Used as an apartment for Joe Fabris (now Tower Office).

1978:

- Renovations made to Johnny Hill's apartment.

1998:

- Dick Carney's apartment was renovated into offices (Carney Office).

2010:

- Finance Office (originally Olgivanna Lloyd Wright's lower room and closet) was remodeled due to heavy deterioration from water infiltration.
- Clinic Office (originally Dr. Joe's clinic) was remodeled due to heavy deterioration from water infiltration.

2012:

- Tower Room converted to administrative offices (Tower Office).
- Johnny Hill Apartment converted to administrative offices (Dekoven Hill Office).

2014:

- Dr. Joseph Rorke's former apartment was renovated for use as an office (Dr. Joe Office).



Figure 7-95 - Olgivanna Lloyd Wright's dressing room, ca. 1980 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-96 - Dr. Rorke's Medical Clinic ca. 1972 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-97 - Dr. Joseph Rorke's apartment, ca. 1977 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

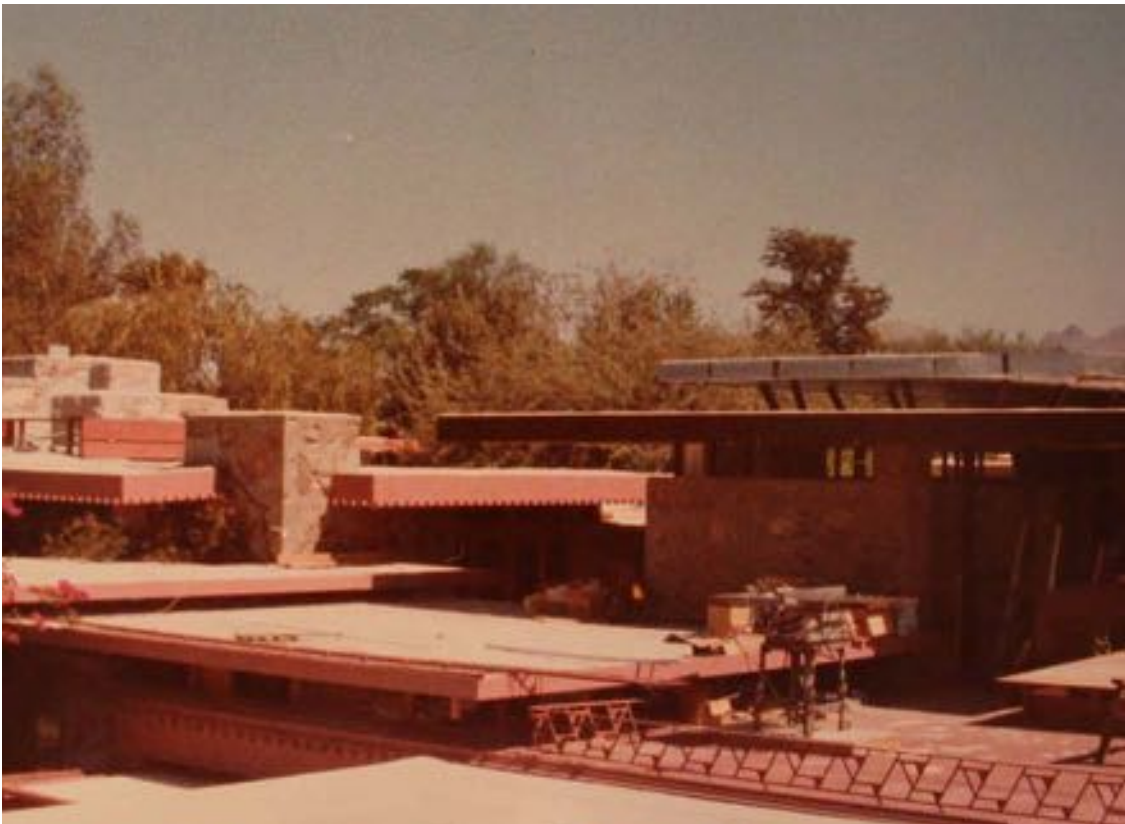


Figure 7-98 - Construction of Tower Room in 1977 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-99 - Dekoven Hill Office and Tower Office looking northwest, 2014 (Harboe Architects).



Figure 7-100 - Outside the Dr. Joe Office, 2014 (Harboe Architects).

SITE & LANDSCAPE FEATURES

1938:

- Land was purchased on February 1, 1938 by the Frank Lloyd Wright for \$10,000. Additional surrounding land (approximately 200 acres) was leased by Wright.
- The site was cleared for the new buildings and roads.
- A well is dug to provide water for the site.

1939-1940:

- Landscaping for the site was developed. Significant features included the prow with its reflecting pool, the petroglyphs, desert masonry retaining walls, Olgivanna Lloyd Wright's garden, and the Sunset Terrace.
- Original landscaping included cacti and other native desert plants.
- A wooden bridge was built in 1940 to connect the Guest Deck and Kiva.

1947:

- Svetlana Peters memorial was installed on the Sunset Terrace.
- The bridge between the Guest Deck and Kiva was reconstructed in desert masonry, replacing the wood bridge.

1949 - 1950:

- Concrete bridge was constructed across the wash at the east side of the Apprentice Court on the path that led to the Sun Cottage.

Early 1950s:

- More nursery type plantings were introduced to the landscape throughout Taliesin West replacing native desert flora.

1951:

- Taliesin West was connected to the local electrical power grid. Prior to this time, electricity was provided by a gas powered generator.

1952:

- Wright expands Taliesin West property by purchasing an additional 160 acres of land.

1955:

- Parts of a glazed ceramic Chinese frieze were purchased in San Francisco and installed around the camp. These Chinese theater scenes were moved to different locations around the site over the next 20+ years.

1956:

- Fountain added in court outside Office.

1959:

- The entrance drive was rerouted per Frank Lloyd Wright's new design running parallel to the complex to allow for views as visitors approached.
- Wright designed the layout for the orchard shortly before his death on April 9th.

Late 1950s:

- The steps and terrace on the south side of the Drafting Studio are painted red.

1964:

- Original Taliesin West well casing was replaced.

1966:

- Taliesin West Treatment Plant was constructed.
- Recessed walk lights were added along walkways.

1970s:

- Plantings and trees throughout Taliesin West become overgrown. Large palm trees are eventually removed.
- Entry road altered and new bridge constructed to accommodate the construction of the canal for the Central Arizona Project by the Bureau of Reclamation.

Late 1980s:

- The parking lot was expanded.

2000s:

- Some native species of plants and cacti reintroduced to the landscaping throughout Taliesin West.

2008:

- Well casing installed in 1964 was replaced with a new casing.

2010:

- Arsenic treatment system added to the well.

2012:

- A solar field was installed southwest of the historic core of Taliesin West.



Figure 7-101 - Desert plantings on prow in front of Drafting Studio, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-102 - Original Kiva Bridge, ca. 1942 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-103 - Concrete paving on the west side of the Drafting Studio, ca. 1949 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-104 - On Prow looking toward the Garden Room, ca. 1948 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-105 - Aerial view of Taliesin West, 1959 (Pedro Guerrero).

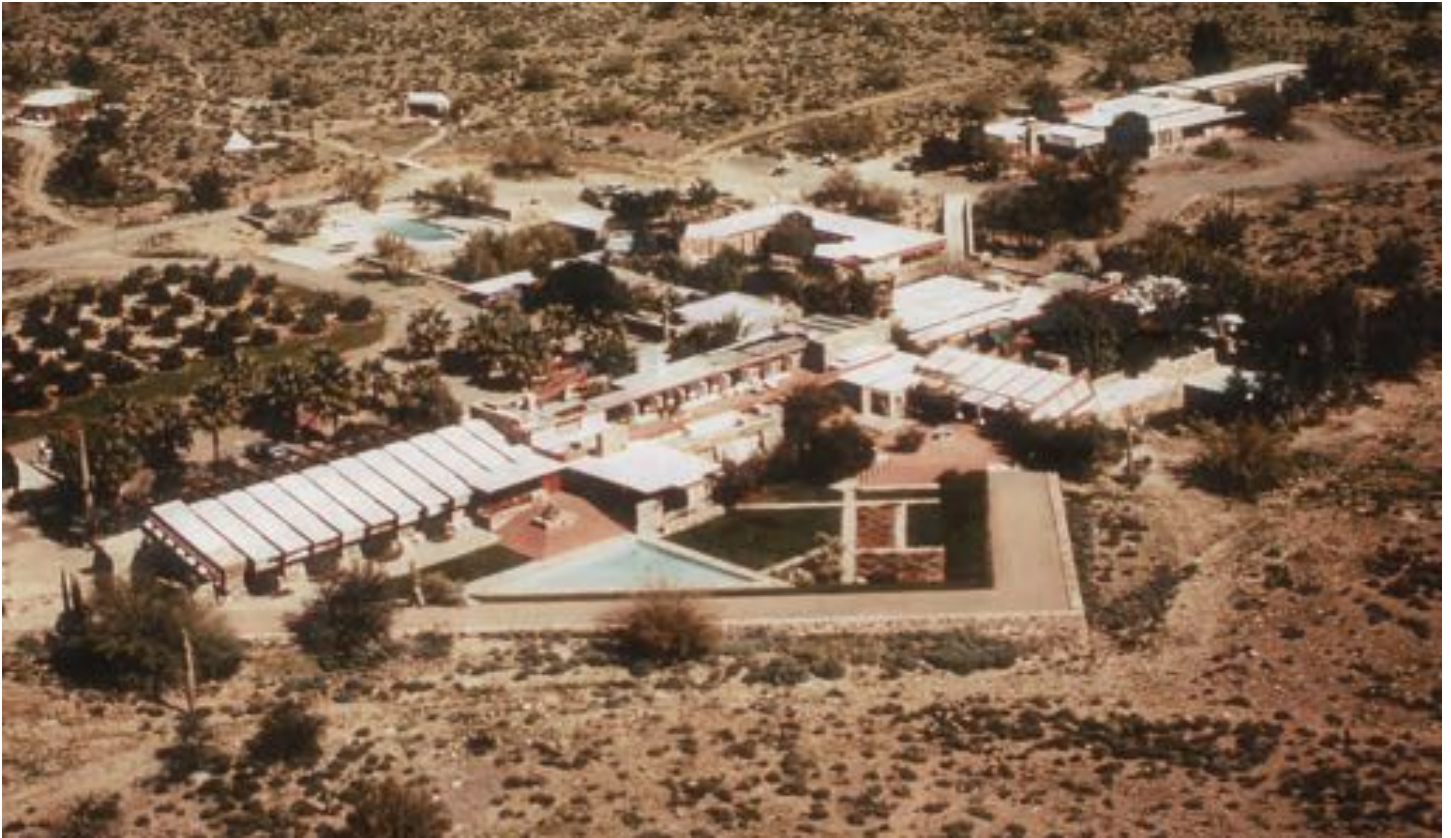


Figure 7-106 - Aerial view of Taliesin West, ca. 1975 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 7-107 - Aerial view of Taliesin West, 2014 (Frank Lloyd Wright Foundation).



Figure 7-108 - Taliesin West from the end of the prow, 2014 (Harboe Architects).

CHRONOLOGY PLANS









8. PRESERVATION PHILOSOPHY & APPROACH

Taliesin West is one of Frank Lloyd Wright's most important works. It is more than a great work of architecture; it was Wright's winter home and studio, and the place where he trained hundreds of young men and women of the Taliesin Fellowship about the principles of organic architecture and his views on how people should live together in a community. He treated the site and its buildings as a place for experimentation for his ideas and changed various aspects of the Taliesin West property almost on an annual basis. From 1938 until after Frank Lloyd Wright's death in 1959, Taliesin West continued to be a vibrant community and living architectural site. Wright's wife, Olgivanna Lloyd Wright, continued to run the Fellowship and Taliesin Associated Architects continued to create architecture based on Wright's ideas and forms. The site and buildings of Taliesin West also continued to be altered in order to adapt to the changing needs and desires of Olgivanna Lloyd Wright and the members of the Fellowship.

Taliesin Associated Architects no longer exists, but a commitment to harnessing the impact of an immersion residential/educational experience continues – currently through the remaining members of the Taliesin Fellowship and the formal Frank Lloyd School of Architecture. The ever-changing landscape of architectural education and the certainty of the eventual passing of the Legacy Fellows suggest that these institutions will likely evolve into something different in the not too distant future. However, there is a strong commitment on the part of the Frank Lloyd Wright Foundation that Taliesin West should continue to be a “living site.” This is a fundamental aspect of what makes Taliesin West special.

The layered complexity of Taliesin West gives it a depth and richness of meaning that is only matched by Taliesin, its counterpart in Wisconsin, as a place to understand the work and life of Frank Lloyd Wright. The significance of Taliesin West has been demonstrated by its being listed as a National Historic Landmark and as one of the primary properties included in the World Heritage serial nomination, Key Works of Modern American Architecture by Frank Lloyd Wright, which is currently on the U.S. Tentative List for World Heritage. Developing a philosophy and methodology to guide the present and future preservation of the building elements and site of Taliesin West is of critical importance to ensure it continues to provide meaning, relevancy and insight to Wright's design thinking for future generations. As made evident in this document, the period of significance for Taliesin West is the period from its initial design and construction in 1938 to Frank Lloyd Wright's death in 1959. Changes that occurred after Wright's death (while contributing to the overall understanding of the history of the site) have sometimes had a deleterious effect on the meaning and values of what Wright created in his lifetime and diminished the impact of this powerful place. The future stewardship of the site and building elements should include an effort to return the core of the campus back to the period of significance associated with the life of Frank Lloyd Wright. This will be achieved through a combination of preservation, restoration and rehabilitation of key building elements and site features. Further careful study must occur and proposed changes and interventions evaluated to determine appropriate action.

It is also vital that a thorough and clear interpretive program be developed to fully explain the history and development of Taliesin West. This should include an explanation of the changes over time that have occurred in the past and those that will occur in the future. The importance of this aspect on the future of Taliesin West suggests the creation of a separate visitors' center to be located on the Taliesin West property, but remote from the historic core so as not to negatively impact the historic buildings and landscape. This would not only allow for a more in-depth experience for visitors wanting to understand the history and meaning of Taliesin West and Frank Lloyd Wright, but will also provide an opportunity to provide visitor amenities such as a larger book and gift shop, toilet facilities, and food service. It would have the added benefit of reducing some of the burden currently imposed on the historic core.

VALUES

The significance of Taliesin West as a cultural heritage site is derived through the identification and understanding of the values it embodies. The values are the attributes or qualities present in, or represented by, the physical aspects of the site including its building elements, landscape and the broader setting. There are also intangible heritage values present in the form of traditions, spirit and continued uses of the place as well as through the people who have had a long association with the site. With the passage of time, the strength of some values may have faded or have been compromised.

Understanding all the values of a cultural heritage site helps to define the appropriate preservation treatments for all its parts. Any intervention must be done in a manner that respects and strengthens the values rather than risks diminishing them. While it is difficult not to be swayed by the importance of some values over others, to fully understand a site's significance it is desirable to try to include as many of the values as possible so that all aspects of a site's meaning can have voice. It should also be acknowledged that when taking into account all the values there will inevitably be conflicts. This will be especially true when it comes to making decisions about treatments. Choices will need to be made which will give primacy to some values over others. Taliesin West embodies many different values that include historical, aesthetic, experiential, social, and economic values. The following is a summary of these values:

Historical and Aesthetic Values:

Historical and aesthetic values are the ones that most typically dominate the definition of any cultural heritage site. Due to the association with Frank Lloyd Wright, the person and the architect, this is strongly apparent at Taliesin West. Some of these attributes include:



Figure 8-1 - West end of Drafting Studio, ca. 1958 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

- Masterwork of Architecture by Frank Lloyd Wright – Taliesin West is recognized around the world as one of Frank Lloyd Wright's most important works.
- Work of Art – Taliesin West's relationship to the desert landscape and environment creates a sculptural and aesthetic impact that goes beyond its utilitarian function and elevates it to a "Work of Art".
- National and International Significance – Taliesin West is a National Historic Landmark and is in the process of being submitted for inclusion on the UNESCO World Heritage List.
- Frank Lloyd Wright and Olgivanna Lloyd Wright's Winter Home – Taliesin West was the winter home of Frank Lloyd Wright and Olgivanna Lloyd Wright from 1938 until his death in 1959 and hers in 1985. The site and the Wrights' personal items that are included in the site's collections help tell the story of the Wrights' lives.
- Layers of Change and Evolution of the Site – Taliesin West was a place for experimentation for Frank Lloyd Wright and his apprentices. He made many changes to the site and buildings during his life. After his death, Olgivanna Lloyd Wright and Taliesin Associated Architects also continued to make numerous changes. This continual state of change is part of the history of the site and one of its basic characteristics.
- Original Design Response to Site and Climate – Taliesin West was designed to take advantage of the natural site and climate. As a winter camp, the building elements were orientated to maximize solar heat gain. The buildings were also designed to take advantage of the prevailing winds with operable panels to control ventilation. The buildings' canvas roof panels diffused the daylight to provide wonderful soft and even natural lighting.
- Extension of the Site into the Landscape – The desert masonry construction of Taliesin West helps make it blend with its landscape. The pathways, plazas, and open spaces are integrated with the multiple structures and define a series of axes corresponding to the topographical features of the site in such a way that lends greater meaning to the landscape. The extensive use of indigenous plants, water features, and other landscape elements create an experience that is as much a work of site-specific landscape architecture or sculptures as it is a constructed building.
- Legacy of FLLW and Fellowship Life and Work – Taliesin West was the winter home and studio of Frank Lloyd Wright and the Fellowship. The work that was produced there, as well as the people who lived and worked there and built Taliesin West, have left a legacy that is part of the spirit of the place. Among the well-known buildings designed at Taliesin West are the Guggenheim Museum in New York City, Johnson Wax Research Tower, Beth Sholom Synagogue, Marin County Civic Center, and Price Tower.
- Resource for Academic Study – Taliesin West is a resource for historians and students of architecture and design to study and research the work of Frank Lloyd Wright.
- Furniture, Fittings, and Onsite Archives – Taliesin West contains hundreds of furnishings and other items designed by Frank Lloyd Wright and members of the Fellowship, both on display and in storage, that add value to the site.
- Decorative Elements – Frank Lloyd Wright was an avid collector of art, especially from the Far East. Asian art accents, paintings, and sculpture are located in key locations around the site.
- Native American Petroglyphs – Frank Lloyd Wright discovered ancient Native American petroglyphs on the property and had them carefully placed at key locations throughout the site.

Experiential Values (Sense of Place):

Taliesin West is a living site. Unlike many cultural heritage sites, it is not just a stagnant museum piece locked in time. Although there are over 100,000 visitors a year that take traditional historic site tours, Taliesin West is also a place where people continue to live, work, and create in a manner that connects back to the time of Frank Lloyd Wright and the Fellowship he created. Some of these values have been diminished or lost with passage of time and the physical changes that have occurred. While in some cases their physical presence may be elusive, like “ghosts”, they can nonetheless be understood through historic documents such as drawings, photographs, or written descriptions from a previous time. The fusion of all these activities with the physical built environment creates a unique and powerful sense of place that is Taliesin West. The attributes that help demonstrate this sense of place include:

- Immersion Education – Taliesin West has provided a unique opportunity for students to live and study in a similar manner to the way members of the Fellowship have since the sites inception in 1938.
- Tourism – Taliesin West is a worldwide destination for over 100,000 visitors a year. Visitors experience the progression through space that Wright created. They also learn about the history of Frank Lloyd Wright, the Fellowship, and their work at Taliesin West.
- Events – Programs such as performances in the Pavilion and receptions in the Garden Room or on the Prow allow guests to experience Taliesin West as an active participant, similar to how the site was originally used by the residents and guests.
- Architectural Experimentation – Frank Lloyd Wright used Taliesin West as a place for experimentation. He made changes to the building elements and site to improve upon his original design concept or to adapt to changing needs. The richness of the architecture Wright created continues to lead to new moments of discovery to this day.
- Seasonal Camp – When Frank Lloyd Wright conceived Taliesin West in 1938 his intent was that it would be a seasonal winter camp in the desert. This seasonal approach allowed for the architecture to be integrated with the desert landscape and the environment during those months ideally suited for habitation. This resulted in an architecture that was part of the desert. The division between inside and outside was dissolved.
- Buildings' Response to the Environment – The building elements at Taliesin West were orientated to maximize solar heat gain in the winter months. They were also designed to take advantage of the prevailing winds with operable panels to control ventilation.
- Quality of Natural lighting - The Drafting Studio, Office, and Garden Room at Taliesin West had canvas roof panels that diffused the daylight to provide soft and even natural lighting.
- Interactive Architecture – The operable canvas panels and fireplaces at Taliesin West required occupants to be actively involved with the building elements to adjust the configuration of the panels for heating and cooling throughout the day.
- Spirit and Feeling of Place - The Taliesin West ensemble can be likened to a vast outdoor home, one in which angular shapes in plan and section echo the landscape, while the wood and canvas raised above concrete and stone desert masonry walls create habitable spaces in a harsh environment. Ancient Amerindian petroglyph boulders found at the site symbolize the relationship between the building elements and their surroundings to create a sense of connectedness with the landscape, past and present.
- Procession Through Place and Time – Taliesin West was designed to lead occupants and visitors through a choreographed procession through the site. Key vistas are framed that highlight important landscape features. In addition, incorporation of petroglyph boulders into the site remind occupants of the connection of the site to its past.



Figure 8-2 - Interior of the Drafting Studio looking west, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

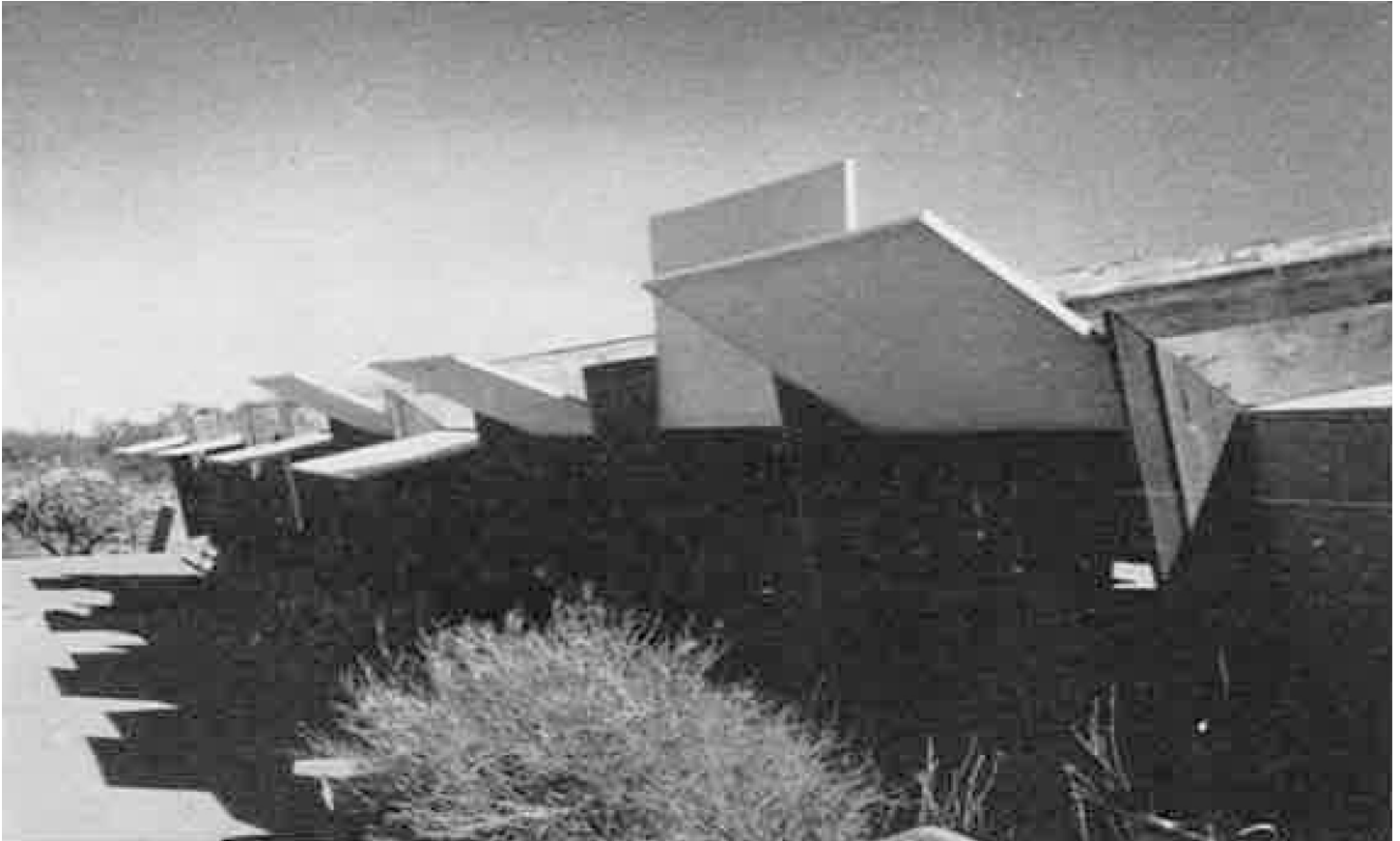


Figure 8-3 - Operable canvas panels on the Drafting Studio, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Social Values (Sense of Community):

One quality of Taliesin West that is rather unusual for a heritage site is its sense of community. This is created through the social interactions of the various users of the site. Although the quality has changed significantly since the time when Frank Lloyd Wright and Olgivanna Wright ran the Fellowship, it was one of the most important aspects of what made Taliesin West (along with Taliesin) such an important and impactful place. The sense of community that is still present should be retained and strengthened with future interventions of the site. Some of the aspects that contribute to this sense of community include:

- Continuity of Use – Taliesin West maintains its original designed use, as supporting an immersive residential community.
- Legacy Fellowship – Taliesin West is the home to Legacy Fellows who worked with Frank Lloyd Wright and helped build Taliesin West. After Wright's death they continued living and working there as part of Taliesin Associated Architects. They have had continuous involvement in the design and construction of Taliesin West as well as being members of the community that live and work there.
- Living with Nature – Taliesin West was constructed as a winter camp in the desert. The apprentices lived in tents in the desert surrounding the site. The design of buildings and site provided a vast outdoor home. This spirit continues today with the students carrying on the tradition of living in self constructed shelters and tents in the desert.
- Personal Connection to the Legacy of Frank Lloyd Wright and the Fellowship – Students and visitors develop a personal connection to the Fellowship members that preceded them and are inspired by being in the place that Frank Lloyd Wright lived and created masterworks of architecture.
- Living Together – The Taliesin Fellowship was a community where members lived and worked together. This sense of togetherness still exists at Taliesin West today through the Frank Lloyd Wright School of Architecture and other immersion programs that allow people to live for extended periods of time within the complex.
- Extended Community with other Institutions – Taliesin West's presence extends beyond its immediate site. There is a strong working relationship with Taliesin in Wisconsin and with Arizona State University and the potential for developing others.



Figure 8-4 - Easter dinner outside the Drafting Studio, ca. 1949 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Economic Values:

Although not always thought about when defining the significance of a heritage site, economic values are always present. Sometimes these are relegated to be of minor importance but they can also dominate a discussion about a site's long-term preservation. Some aspects that define the economic values of Taliesin West include:

- Property and Buildings – The property and buildings at Taliesin West have substantial financial value estimated to be \$24.7 million.
- Revenue from Tourism, Programs and Sales – Taliesin West generates significant revenue through tickets, retail, and tuition. In 2014, the total revenue was \$9.16 million.
- Creates Employment – Taliesin West employs 127 people.
- Brings Visitors and Tourism to Scottsdale and Phoenix – Taliesin West is an international destination that brings visitors and revenue to the Scottsdale area.
- Conservation Easements – There are multiple conservation easements on the property and historic structures of Taliesin West.
- Taliesin West as a Marketing Tool – During the lifetime of Frank Lloyd Wright, Taliesin West was used as a tool to market his architecture. Important clients were brought to the site to showcase Wright's architectural ingenuity. Today, marketing remains an important part of the site; however, now the focus is marketing for tourism and to build support for the Frank Lloyd Wright Foundation.



Figure 8-5 - Aerial view of Taliesin West (Frank Lloyd Wright Foundation, 2014)



Figure 8-6 - Exterior of the Drafting Studio and Original Dining Room, ca. 1940 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

SIGNIFICANCE

The Arizona desert is no place for the hard box-walls of the houses of the Middle West and East. Here all is sculptured by wind and water, patterned in color and texture. Rocks and reptiles no less so than the cacti. A desert building should be nobly simple in outline as the region itself is sculptured: should have learned from the cactus many secrets of straight-line-patterns for its forms, playing with the light and softening the building into its proper place among the organic desert creations – the man-made building heightening the beauty of the desert and the desert more beautiful because of the building. A dream, but realization is coming.

Frank Lloyd Wright set out into the Arizona desert to make his dream a reality in December 1937. By the following February, he purchased the land in Paradise Valley at the foot of the McDowell Mountains that would become his famed desert camp, Taliesin West. In just a few years the core of the campus was completed and utilized seasonally as a place for working, living, and architectural exploration by the Wrights and the members of the Taliesin Fellowship. The significance of Taliesin West is instilled in its unparalleled design and association with master architect, Frank Lloyd Wright.

One way to define Taliesin West's significance is by utilizing the National Register of Historic Places Criteria for Evaluation of historic significance. There are four criteria used: Criterion A - Event; Criterion B - Person; Criterion C - Design/Construction; and Criterion D - Information Potential (archaeology). Although its primary significance clearly comes from Criteria B and C, Taliesin West qualifies under all four criteria.

Criterion A: Events

“Properties may be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history.”

Association with the Taliesin Fellowship:

Taliesin West is significant for its association with the activities and work of the Taliesin Fellowship. Founded in 1932, the Taliesin Fellowship was an opportunity for young apprentices to learn directly from the master. Wright believed in “learning by doing” and apprentices, with guidance from Wright, learned about architecture and construction through working on Wright’s design projects and physically constructing the building elements and landscape at Taliesin West. While the primary focus was architecture, the Fellowship also emphasized other fine and performing arts including painting, sculpture, music, drama and dance. Apprentices were also responsible for cooking, cleaning, building maintenance, laundry, gardening, and other day to day tasks at both Taliesin and Taliesin West.

Taliesin West was created specifically as a winter home and studio for Wright and the Taliesin Fellowship. Starting in 1938 the apprentices began applying Wright’s principles on organic architecture to the construction of the camp in the Arizona desert. Through the Fellowship, Taliesin West became a place for learning, experimentation, community and culture. Apprentices came from all over the world to study under the master, Frank Lloyd Wright, and to learn through working on Wright’s own architectural commissions. The young men and women also learned through physical labor. One of the first tasks an apprentice had to accomplish was constructing his or her tent in the desert surrounding the camp. Many of the new apprentices also worked on construction at Taliesin West. Through the collaborative nature of the work, the Fellowship imbued a strong sense of community. For many of the apprentices, it was more than just an education in architecture. It was a full immersion into the culture and community created by the Wrights. Following the death of Wright and subsequently his wife, Olgivanna, the Fellowship continued under the guidance of the senior fellows. Some of these fellows, now in their 80s and 90s, still live at Taliesin and Taliesin West today, carrying on the legacy of Wright and the Taliesin Fellowship.

During Wright’s lifetime, over 500 apprentices took part in this unique experience, all staying for varying lengths of time. A version of the Fellowship, in conjunction with the firm Taliesin Associated Architects, continued under the direction of Olgivanna Lloyd Wright following her husband’s death in 1959 and then under Wes Peters following Mrs. Wright’s death in 1985. TAA was eventually disbanded, and in 1992, professional accreditation of a Master of Architecture degree was granted (with a formal school of architecture replacing the apprentice program/model).



Figure 8-7 - Wright and apprentices in the Drafting Studio, ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 8-8 - Apprentices singing in Kiva, ca. 1948 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Criterion B: Person

“Properties may be eligible for the National Register if they are associated with the lives of persons significant in our past.”

Association with Frank Lloyd Wright:

Taliesin West was the longtime home and studio of world renowned architect Frank Lloyd Wright from 1938 until his death in 1959. Wright was one of the most famous and respected architects of the twentieth century. Throughout his long career that spanned seven decades, he designed hundreds of extraordinary buildings and influenced several generations of young architects. For the last twenty years of his life, Frank Lloyd Wright would migrate from Taliesin in Wisconsin to his desert camp, Taliesin West in Arizona. Wright, along with his family and members of the Taliesin Fellowship, would typically load up a caravan of trucks and cars in Spring Green in late November and stay in Scottsdale until late April when they would reverse the migration north for the summer. It was the place where Wright developed some of the greatest architectural masterpieces of his late career, including such works as the Johnson Wax Research Tower, Price Tower, Beth Shalom Synagogue, Marin County Civic Center, and the Solomon R. Guggenheim Museum. Taliesin West itself is one of Frank Lloyd Wright's most remarkable works and is primarily significant because of its association with his life and work.

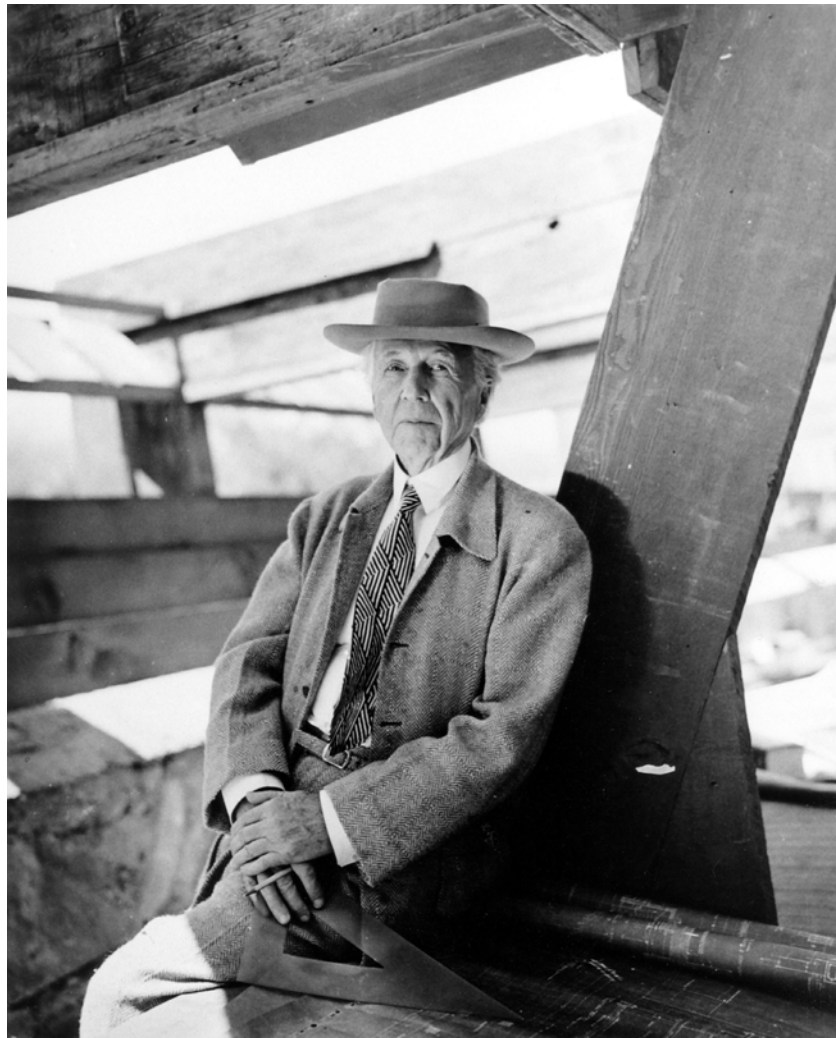


Figure 8-9 - Frank Lloyd Wright in the Drafting Studio, ca. 1950 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Criterion C: Design/Construction

“Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”

Distinctive Characteristics & Method of Construction:

Taliesin West is significant because of its distinctive architecture and construction, as well as its high artistic value, all a result of the genius of the architect Frank Lloyd Wright. Wright designed Taliesin West to respond to the surrounding environment, writing in 1949, “Our camp was freshly inspired by the native forms of the Arizona desert itself.” Wright was adamant that it was to be a desert camp with integral exterior and interior spaces that responded to the winter climate of the Arizona desert. Wright’s design of the site was deliberate. He studied the surroundings and purposely laid out the building elements to take advantage of the angle of the sun, views, and natural breezes on the site. The core building elements were oriented to the southwest to take advantage of the sun that filtered through the white canvas and uncovered openings. Walls and openings were carefully planned to frame views out into the surrounding desert. Rooms, such as the drafting studio, were left open to the desert environment. Other structures had openings that were enclosed with simple canvas flaps that could be opened or closed depending on the weather. This operability facilitated the movement of air through the structures, providing cooling breezes during the hot desert days. While the winter temperature in Arizona was relatively warm during the day, nighttime in the desert could get quite cold. Wright accounted for this by including fireplaces in all of the major building elements. Wright designed a fully sustainable system for seasonal use in the Arizona desert that used passive cooling methods through positioning the building elements to take advantage of the breezes and wood burning fireplaces to provide heat as needed.

Wright used forms and materials inspired by the surrounding desert, writing in his autobiography, “For overhead balconies, terraces, and extended decks we devised a light canvas-covered redwood framework resting upon massive stone masonry that belonged to the mountain slopes all around.” Walls and structural piers of the core structures were constructed of a system of stones found onsite set in concrete that Wright termed “desert masonry.” The stones were various sizes and colors, which were left exposed on the exterior and interior creating a distinctive wall pattern for each building element. The heavy desert masonry walls helped to anchor Taliesin West into the desert surroundings and gave it a sense of permanence, as if it were an ancient archaeological ruin in the vast Arizona desert. Horizontal grooved striations in the walls were inspired by the natural markings in the canyon walls caused by water erosion that Wright saw while visiting northern Arizona. These lines not only mimic those found in the natural desert environment, they also emphasize the horizontal layout of the campus. Low masonry knee walls stretch out into the landscape to frame paths through the site and create edges between the Taliesin West campus and the surrounding desert.

Except for the Cabaret Theater and the Kiva, which have desert masonry roof structures, redwood framing was typically used to form the roof structure of the building elements. The redwood framing was originally left exposed, but eventually it was painted to protect it from the severe desert sun. In three of the primary building elements, the Drafting Studio, Office, and Garden Room (and later in the Pavilion), operable canvas panels were installed at the roofs between the redwood framing. These panels could be opened and closed to regulate ventilation and breezes through the spaces. Unlike the enduring quality of the heavy masonry walls, the canvas roof system had the ephemeral quality of a tent. Wright was fascinated by the quality of light attained through the canvas panels. When describing his earlier camp, Ocatilla, the inspiration for the canvas roofs of Taliesin West, Wright declared, “I presently found that the white luminous canvas overhead and canvas used instead of windows afforded such agreeable diffusion of light within, was so enjoyable and sympathetic to the desert, that I now felt more oppressed by the thought of the opaque solid overhead of the much too heavy Midwestern house.”

Frank Lloyd Wright's design for Taliesin West was distinctive. It was dynamic in that it responded to the desert environment both through its position on the site and the materials used. Taliesin West was also constantly changing as Wright worked to perfect the design of each portion of the interconnected structure. Because of its desert location, use of materials and continual modifications, construction methods used were not typical and a new architecture was created that was truly unique to Taliesin West. Therefore, Taliesin West is also significant because of its distinctive architecture and construction methods, the concept of master architect, Frank Lloyd Wright.



Figure 8-10 - Construction of the Drafting Studio, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 8-11 - Wright at work outside the original dining room, ca. 1939 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Criterion D: Archaeology

“Properties may be eligible for the National Register if they have yielded or may be likely to yield, information important in history or prehistory.”

Ancient Native American Artifacts:

While the significance of Taliesin West primarily comes from its association with Frank Lloyd Wright, the Fellowship and its distinctive architecture, the site is also significant for the ancient Native American artifacts that have been discovered and those that may be present but not yet identified. The Native American petroglyphs were found by Wright and members of the Fellowship in the early years (1938 – 1942) at Taliesin West and positioned at key locations throughout the site as important decorative elements. The presence of the petroglyphs is evidence of an active Native American culture from a previous time. It is possible that additional petroglyphs still exist undisturbed on the site. Although more research and excavations may be necessary to confirm this, there is potential that the site would likely yield information important in the history of the American Southwest and Native American culture.

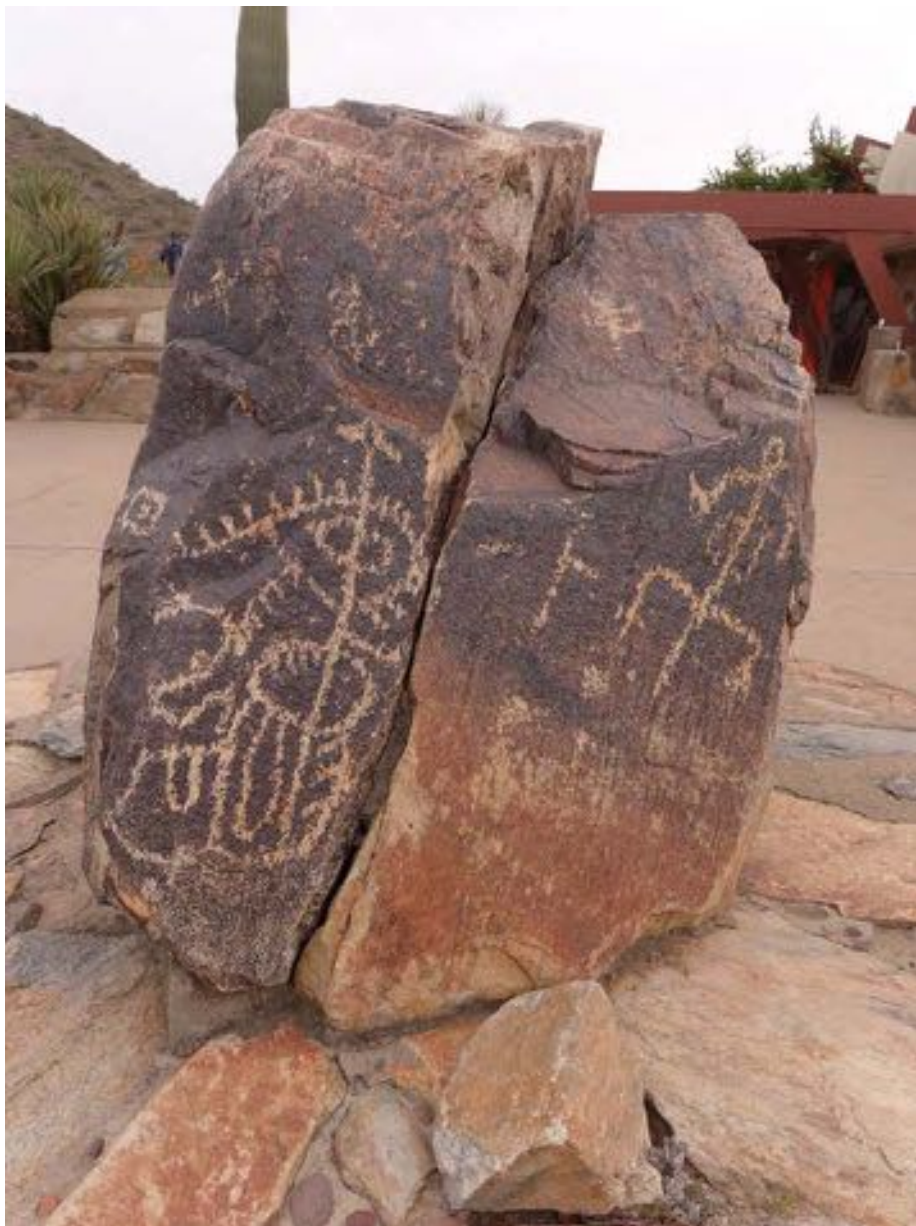


Figure 8-12 - Petroglyph outside Wright's Office, 2014 (Harboe Architects).

Modifications Over Time

There have been many changes to Taliesin West since the first building elements were constructed there beginning in 1938. Many of these changes were the result of Frank Lloyd Wright's own evolving design concepts for the site or concern for practical issues, while others were carried out after Wright's death.

The canvas roof systems were constantly altered as Wright continued to experiment with different configurations throughout the 1940s and 1950s, ever striving to improve upon the previous design. He was trying to keep out the rain while maintaining the soft, even light he so valued. Versions of the roof system in the early 1940s included a section of lapped wood boards running down the center of the roof. It is believed this was done in an attempt to decrease the amount of water leaking in when it rained and to reduce solar heat gain in the spaces. By the late 1940s the system had changed again to large expanses of inoperable canvas. By the late 1950s, Wright experimented with a new rubberized fabric material called Fiberthin for the roofs. However, the expanding and contracting qualities of this material made it a poor choice for the roofs. Despite multiple changes over the course of twenty years, the canvas enclosures undoubtedly promoted the camp atmosphere Wright was trying to achieve for Taliesin West.

Beginning in 1945-46, glass began to be introduced into the structures at Taliesin West. When the camp was first constructed in 1938, Wright was against using glass in his "desert camp"; however, over time, Wright decided to add glass to allow for views from interior to exterior. The glass also minimized the dust and dirt of the desert that frequently blew in through the openings. By the early 1950s, many of the spaces throughout the site had some glass and by the time of Wright's death in 1959, significant amounts of glass had been added to the building elements at Taliesin West. While Wright did add glass and alter the roof systems in a way that moved away from a desert camp toward more permanent buildings, the idea of a fabric roof overhead was never fully abandoned during his life. It was only after Wright's death that the fabric roof panels were entirely replaced with more permanent materials such as fiberglass and acrylic. Additional changes were made to the roof system in the late 1950s when the redwood roof framing was replaced with new wood beams that were reinforced with steel flitch plates. This was done to strengthen the structure and make it more durable. These modifications were carried out in an attempt to improve material and climate performance while still respecting the original design concept.

Other alterations and additions to the architecture and landscape of Taliesin West were carried out after Wright's death. While these changes were not completed during Wright's lifetime, many could be considered important to the history of the site. The Pavilion, originally constructed in 1957, was reconstructed in 1964 following a fire that destroyed everything except the desert masonry piers. The new Pavilion was constructed using steel framing. While the current version of the Pavilion is not part of the Frank Lloyd Wright period, it is still a significant part of the overall ensemble of interconnected building elements onsite. The Sun Cottage was also significantly renovated in 1960 with a new steel frame and fiberglass panels and the Atrium and East Wing were added to the east side of the Sun Cottage in 1961. Significant new construction also took place on the east side of the Wright's living quarters in the following decades. A group of building elements was constructed in the 1970s for additional living quarters and Dr. Joseph Rorke's medical office. This extended structure now serve as administrative offices for the Frank Lloyd Wright Foundation.

Some alterations to the building elements at Taliesin West have had a significant impact on the historic integrity of the site. In 1970, the entire guest deck and dining room (except for the masonry walls and piers) were demolished and reconstructed with steel framing. The pergola to the north of the studio was raised and rebuilt in steel. The wood structure on the bell tower was also reconstructed in steel at this time. While steel holds up better than wood, the reconstructions made a considerable impact on these structures, which are significant components of the historic core. The other major change that negatively affected the historic integrity of the building elements was the replacement of the fabric roof systems with fiberglass and later acrylic panels. This alteration considerably changed the character

of the interior of the Drafting Studio, Office, and Garden Room and eliminated the operability of the roof panels. While the current system incorporates a layer of canvas on the interior, it does not have the same quality and effect as the original canvas system. The glass enclosed expansion of the Wes Peters/Gene Masselink quarters has also had a negative effect on how the architecture is viewed, particularly from the Prow, one of the key views of the complex. Additionally, some of the landscaping and plantings have overgrown to the point where they conceal Wright's original view corridors on campus.

Integrity

While there have been some substantial changes and additions to Taliesin West over the years, it still possesses the key elements of integrity used by the National Park Service when evaluating historic significance. These include integrity of location, design, setting, materials, workmanship, feeling, and association. Taliesin West is still in the same location it was when constructed starting in 1938 and it still retains the basic plan and form that was designed by Wright. While there has been a large amount of development in surrounding areas in Scottsdale in recent years, Taliesin West still retains its relationship to the surrounding desert and mountains. The site also retains a large amount of material from Frank Lloyd Wright's lifetime including paving, flooring, and most of the desert masonry walls, as well as its visual evidence of workmanship in construction of the buildings. The integrity of feeling and association also remain through the Foundation's extensive public, residential, and educational programs and activities. Taliesin West is also home to the surviving Taliesin Fellowship members, Frank Lloyd Wright Foundation administration and staff, and hosts numerous events and community programs. All of these uses add to the vitality of Taliesin West, facilitate the sustainability of the site into the future, and enhance the historic significance of this extraordinary place.



Figure 8-13 - Drafting Studio, ca. 1941 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 8-14 - Drafting Studio, 2014 (Harboe Architects).

LEVELS OF SIGNIFICANCE & INTEGRITY

As an internationally significant work of architecture by Frank Lloyd Wright, Taliesin West is to be preserved and enhanced to better express the important values of the site. In order to help guide the preservation goals for the site, Preservation Zoning has been developed that identifies zones based on the level of material and design integrity, relative importance of the individual building and site components, as well as their contribution to enhancing the overall understanding of Taliesin West.

Trying to describe all the building and site elements that make up Taliesin West can be confusing. It is neither a single building nor a group of buildings. Rather it is a rich complex of indoor and outdoor spaces that are created by desert masonry walls, roofs, courtyards, walkways, landscaped areas and the desert itself. They all flow together in one interconnected whole that is Taliesin West. The names used to describe the building and site elements are typically those that are in common use today.

In determining the assignment of preservation zones for the building elements and spaces at Taliesin West, primary and secondary source research and onsite investigation of the building elements and site were utilized. Through research and investigation of the building components and surrounding landscape, an understanding of construction chronology and modifications was developed that helped to categorize and prioritize the various elements of the site and ultimately place these elements into zones based on their level of significance and integrity. It is not an exact science but differentiating between elements was felt to be important in order to allow for developing the prioritization of future treatments.

Building and site elements completed during the period of Frank Lloyd Wright (1938 – 1959) and still retaining a substantial amount of material or design integrity were determined to be more significant than those building and site elements modified or completed after Wright's death (1959 – present day). Zones 1 and 2 include the most significant building and site elements. The difference between these zones is marginal and is related to the amount of material or design integrity currently existing. Zone 3 includes building elements and site features that are slightly less significant, and Zone 4 includes building and site elements that have minor or negligible significance. There are a few elements or spaces that may actually change zones once further research has been conducted to provide a better understanding of those spaces or elements.

Zone 1 (Primary Significance)

Building, spaces and site elements in Zone 1 are part of the core historic camp and are integral to Frank Lloyd Wright's design and development of the site. In addition, these building and site features contain much of their material and design integrity from the period of Frank Lloyd Wright. A few have had some alterations to their materials but maintain their basic design integrity. These are marked with an asterisk (*).

The spaces, building and site elements in Zone 1 include:

The site hardscape, landscape and view corridors of the historic core campus*

Frank Lloyd Wright's Office

Drafting Studio

Original Dining Room (now Board Room)

The exterior walls and spaces of the Apprentice Court Apartments

Pergola*

Kiva

Cabaret

Light Tower

Bell Tower*

Water Tower

Peters/ Masselink Rooms (behind the WWP Conference Room)*

The Garden Room

The Wrights' Private Living Quarters*

Prow

Zone 2 (Secondary Significance)

Building elements, spaces and site elements in Zone 2 are either non-public spaces that are not integral to the significance of Taliesin West but still maintain some material from the period of Frank Lloyd Wright, (such as the shops and the interiors of the apprentice apartments); or they are building elements within the historic core of the campus that were essentially reconstructed and modified after Frank Lloyd Wright's death in 1959 (such as the Dining Room, Kitchen and Guest Deck). These spaces or elements would be considered in Zone 1 but for their significant later alteration and are marked with a double asterisk (**).

The spaces and building elements in Zone 2 include:

The interiors of the Apprentice Apartments

Shops

Dining Room (former Loggia)**

Kitchen**

Guest Deck**

Kitchen & Bathrooms in Wright Quarters

Citrus Grove

Men's Locker Room (exterior)

Root Cellar



Figure 8-15 - Drafting Studio - Zone 1 (Harboe Architects)



Figure 8-16 - Kiva - Zone 1 (Harboe Architects)



Figure 8-17 - Dining Room - Zone 2 (Harboe Architects).



Figure 8-18 - Guest Deck - Zone 2 (Harboe Architects)

Zone 3 (Tertiary Significance)

Spaces and building elements in Zone 3 are those that were largely reconstructed after the period of Frank Lloyd Wright (1938 – 1959), but still contain some original elements of Frank Lloyd Wright's earlier constructions at these locations, such as the desert masonry. These building elements still contribute to the history of Taliesin West because of their association with Frank Lloyd Wright, Olgivanna Lloyd Wright and the Taliesin Fellowship but could be seen to have stronger physical affiliation with the later period after Wright's death.

The spaces and building elements in Zone 3 include:

Pavilion

Sun Cottage

Outdoor terraces and gardens directly adjacent to the Pavilion and Sun Cottage



Figure 8-19 - Pavilion - Zone 3 (Harboe Architects)



Figure 8-20 - Sun Cottage - Zone 3 (Harboe Architects)

Zone 4 (Minor Significance)

Spaces and buildings in Zone 4 were constructed after the period of Frank Lloyd Wright (1938 – 1959) and are not the work of Frank Lloyd Wright. These buildings still contribute to the more recent history of Taliesin West due to their relation to Olgivanna Lloyd Wright and the Taliesin Fellowship.

The spaces and building elements in Zone 4 include:

William Wesley Peters (WWP) Conference Room

Administrative Buildings (formerly Dr. Rorke's medical office and living quarters for fellows)

Surrounding outdoor terraces around the administrative buildings

Atrium

East Wing

Library and storage spaces for the Pavilion

Bookstore

Men's Locker Room (interior)

Reading Room

Fellowship pool

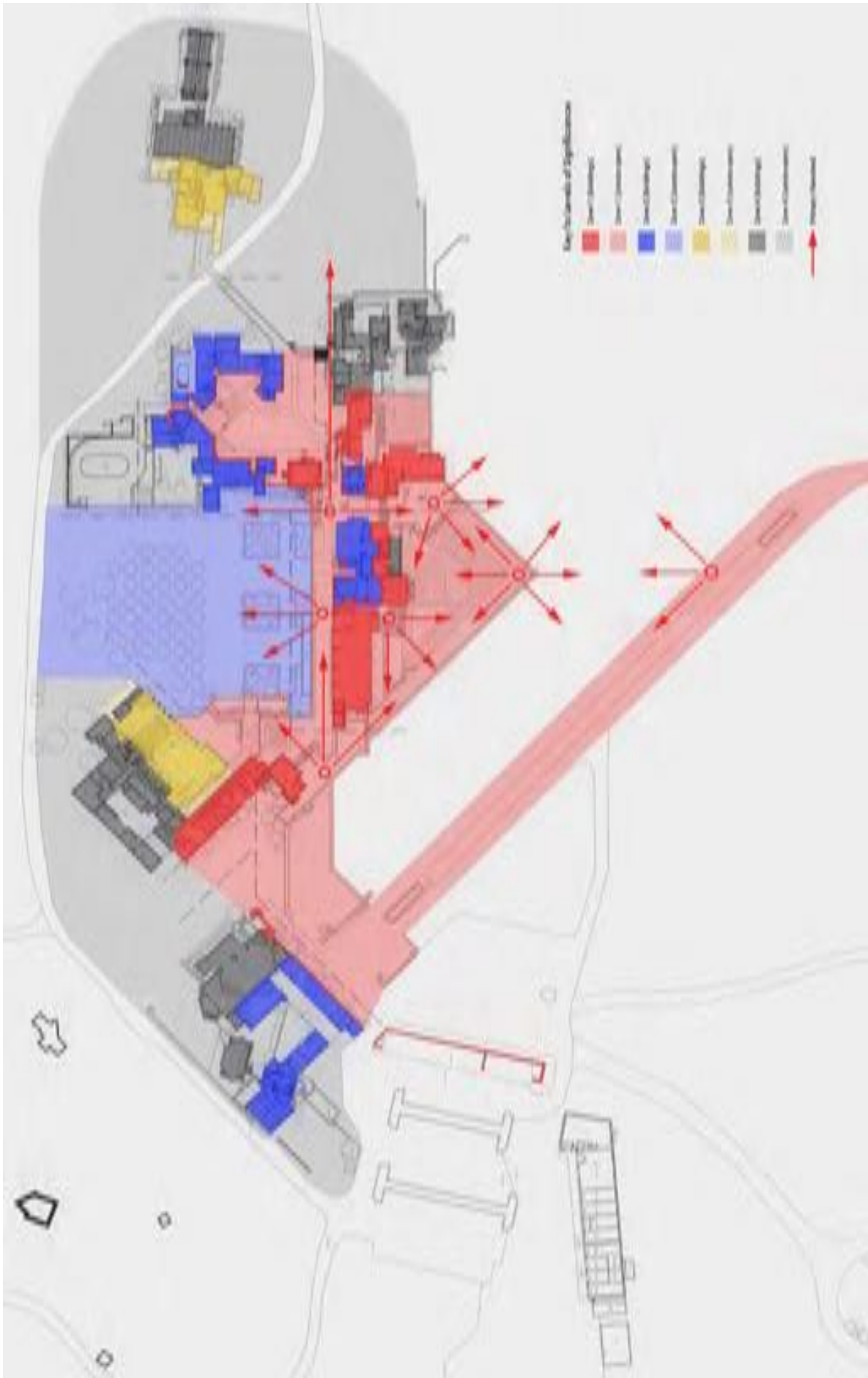


Figure 8-21 - Preservation Zoning Plan of Taliesin West.

Other

This includes all buildings, spaces and site elements outside the scope of the Preservation Master Plan, including but not limited to the Archives Building, Crescent Apartments, Student Shelters, and other buildings, structures, and landscapes that are on the Taliesin West property. It is strongly recommended that additional study be conducted to gain a better understanding of these structures and elements and their contribution to the significance of the overall site.



Figure 8-22 - William Wesley Peters Conference Room - Zone 4 (Harboe Architects)



Figure 8-23 - Atrium - Zone 4 (Harboe Architects)

PERIOD OF SIGNIFICANCE

Determining a period of significance for any historic site can be a challenging task. It is common preservation practice to make this determination to aid in the planning of any interventions that are needed at the site as well as its interpretation. Significance should be based on the cultural values that are present and expressed by the physical fabric of the site. Any proposed work should have the period of significance in mind so appropriate decisions are made that support and enhance the understanding of a site's importance and not detract from it. This is particularly true when the intent is to restore a site to a previous time. For some sites this is a rather straight forward task as its significance relates to its original construction, or perhaps to a single historic event. Other sites, such as those that have undergone a number of additions or alterations, or have a long period of time where significant events have occurred, are much more difficult to determine. Taliesin West is such a site.

Based on a careful analysis of the history, embedded values and physical integrity of the site, the primary period of significance for Taliesin West has been determined to be from its initial design and construction starting in 1938 to the death of Frank Lloyd Wright in 1959. Over that twenty year period there were many alterations and incremental changes that transformed Taliesin West from a rustic open desert camp into a more refined and enclosed seasonal campus where Wright and members of the Fellowship lived and worked nearly six months of each year. These changes resulted in a place with some significant differences at the end of this period than that which existed at the beginning. Many of the changes were intentionally done by Wright, and others appear to have perhaps occurred more haphazardly, particularly in the last few years of his life. However, the majority of the values and physical manifestations of what Taliesin West was to Frank Lloyd Wright were present at the time of his death.

It is very tempting to focus attention on the brief period of the original design and construction from 1938 until the end of the war. During this period Taliesin West was a bare bones open camp. The purity of the idea of using only desert masonry, wood and canvas, and the beauty of the black and white photographs that depict a ship like structure set sail in the desert, are very seductive. It must have been amazing. However it must be remembered that this was at a time when Wright had very few commissions and even less money. When the war ended there was a large influx of former and new apprentices and new commissions. Wright now had the resources (apprentices and money) to modify and expand Taliesin West which he began almost immediately and didn't stop until he died. To ignore those last fourteen years is to exclude an important part of the story of what Taliesin West was to Wright.

The changes that occurred after Wright's death and up to the time of Olgivanna Lloyd Wright's death in 1985 are viewed as falling outside the primary period of significance and are sometimes in direct conflict with what existed during Wright's lifetime. While an argument could be made that these changes contribute to the understanding of what Taliesin West is today, they were carried out by the senior Fellows under the direction of Olgivanna Lloyd Wright and there is a distinct difference in the manner in which they were executed from those of the Wright period. Some changes of materials and details have clearly had a deleterious effect on the original values and material integrity of some aspects of the site. Similarly the additional changes made since 1985 up to the present are seen as moving even further away from the Taliesin West built and lived in by Frank Lloyd Wright.

What does this mean moving forward? Does selecting a primary period of significance of 1938 -1959 mean that the entire complex should be restored to exactly how it looked on the date of Wright's death, April 9, 1959? The answer is no. Even if there were extensive photographic and drawing documentation that provided evidence of how Taliesin West looked on that day (there is not), it would be extremely difficult and impractical to carry out such a radical reversal. The idea of going back to a fixed point in time is illusive. Time has moved on and continues to do so. The Taliesin West of tomorrow will necessarily be different from the Taliesin West of 1959 and the one of today. It is impossible to know what will happen ten or twenty years from now. The future will likely bring new demands and expectations from its various users that will influence how the various building components should function. New technologies may allow the building elements to operate in a more efficient and appropriate manner.

Rather, the primary period of significance of 1938-1959 should be used as the guide to achieve the goal of recapturing as many of the values that define Taliesin West as possible. It should shape the decisions that will need to be made for future interventions on all of the building and site elements. The sheer size of the complex and the significant financial investment that will be required to maintain, preserve and restore the building elements and site means that any interventions are likely to occur over an extended period of time. This is true to the essence of Taliesin West and could be seen as an authentic aspect of what it is as a place. Wright continually changed it during his lifetime. Subsequent changes over the last half century since his death have moved it away from his ideal. Any future interventions should be utilized to recapture the Taliesin West that once was, even if they are done incrementally.

While much of Taliesin West is currently in stable and usable condition, there are a number of important issues with fundamental aspects of the buildings, such as the roofs and mechanical systems, which need to be addressed in the immediate or near future. As this work is planned and executed it should be done in a manner that brings back the qualities that were present in the primary period of significance such as fabric roofs and utilizing natural ventilation. To accomplish this with the necessary level of accuracy and authenticity, further research and analysis needs to be conducted into each of the buildings and entire site that make up Taliesin West. It is recommended that this takes the form of a historic structure report (HSR) or a series of HSRs that fully document the history, construction chronology and current conditions and proposed treatments of the component in question.

CONSERVATION PRINCIPLES

Using the primary period of significance of 1938-1959 described above to help guide preservation and restoration decisions, the following conservation principles are proposed as the basis for developing treatments and modifications:

Preserve materials and elements from the period of Frank Lloyd Wright (1938-1959) still existing onsite.

Evaluate those modifications made over time that demonstrate respect for the Frank Lloyd Wright period of significance, integrity and values. Building and site modifications that have been made after the life of Frank Lloyd Wright are to be maintained unless those modifications are determined to have an adverse effect on Wright's design for a winter camp that responded to its natural environment.

Values based assessment of significance for evaluating and planning treatments - Consider the embodied values associated with the site and seek to find the best balance that meets the preservation goals.

Encourage continued use and be a living site that accommodates changes over time – Taliesin West is a living site and is to maintain the intended use of the site as a place for living, working and learning.

Reverse alterations that compromise the historic character and significance of Taliesin West.

PRESERVATION TREATMENT STRATEGIES

In order to help guide preservation and restoration decisions, the following preservation treatment strategies will be followed for each zone of significance:

Zone 1 (Primary Significance)

Preserve, restore, and rehabilitate buildings, spaces and site features which contribute to the period of significance associated with Frank Lloyd Wright (1938-59) to enhance the understanding and interpretation of the site as a seasonal winter camp.

Zone 2 (Secondary Significance)

Preserve the contributing materials and elements of buildings, spaces and site features still present while allowing for modifications that are sympathetic to the historic character of the building or site element.

Zone 3 (Tertiary Significance)

Preserve the contributing materials and elements of buildings, spaces and site features still present while allowing for respectful rehabilitations and upgrades to spaces based on programmatic needs.

Zone 4 (Minor Significance)

Allow for respectful rehabilitation, modifications, and possible removal or replacement to buildings and site elements with minor or negligible significance to accommodate programmatic needs on the site.

PROCEDURES

The following preservation procedures are based on the Secretary of the Interiors Standards for the Treatment of Historic Properties. As a National Historic Landmark, it is important that the treatments for the various components of Taliesin West adhere to the Standards. It should also be understood that each building component and landscape feature may have different specific treatments or combinations thereof, based on its level of significance, level of material integrity, current physical condition, and proposed use. The basic procedures are as follows:

Use – Taliesin West is to be used as it was historically – a seasonal winter camp for living, learning and working. Uses that require modifications to contributing materials, features, spaces and spatial relationships are discouraged. Year round uses that are accepting of the limitation of the building's design as a seasonal camp and are sympathetic to the historic use of the site are acceptable.

Character and Materials – Materials, features, spatial relationships and view corridors that are from the period of Frank Lloyd Wright are to be retained and preserved. The replacement, alteration or removal of intact or repairable historic materials, features, spaces, and spatial relationships that characterize Taliesin West are to be avoided.

Physical Record of the Properties Time, Place and Use – Changes that create a false sense of historical development such as adding conjectural features, or combining features that never existed together historically shall be avoided. Restoration and conservation of contributing materials and features will be physically and visually compatible with the historic materials and are to be fully documented for future research.

Respect Changes That Have Acquired Historic Significance – Changes that have acquired historic significance in their own right are to be maintained and preserved. Materials, features, spaces and finishes that are not from the period of Frank Lloyd Wright are to be documented prior to their alteration or removal.

Repair and Preserve Original Materials and Features – Distinctive materials, features and construction techniques and examples of craftsmanship that characterize Taliesin West shall be preserved.

Repairs of Historic Materials – Deteriorated historic materials will be repaired rather than replaced. Repair treatments are to use the gentlest means possible and shall not cause damage to historic materials. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the original in design, color, texture, and where possible material.

Replacement and Reconstruction of Missing Features – Replacement or reconstruction of missing features will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

Archeological Resource Shall Be Preserved – Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

New Additions and Alterations – New additions and exterior alterations are to be avoided in the primary spaces and structures of Taliesin West. Additions are to be planned outside of the historic core and view corridors of the campus. They are to be differentiated from the historic buildings and elements and be compatible with the historic materials, features, size, scale, and proportion of the complex. New construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

9. PROGRAMMING WORKSHOPS SUMMARY

Harboe Architects conducted programming workshops at Taliesin West with five distinct groups that included representative faculty from the Frank Lloyd Wright School of Architecture, representative students of the school, the Frank Lloyd Wright Foundation administration, the tours and visitor services staff, and the legacy fellows. The workshops identified that the various user groups have many areas of shared use on the site. The collaborative environment that these overlapping uses create is important and has always been part of Taliesin West. The restoration should serve to strengthen this collaborative environment while improving the facilities to best accommodate user needs and preserve historic materials, spaces, and relationships.

The following site plans illustrate the primary space uses of each user group.



Figure 9-1 - Site plan of Taliesin West showing the locations of spaces used by the Frank Lloyd Wright School of Architecture.



Figure 9-2 - Site plan of Taliesin West showing the locations of spaces used by the Frank Lloyd Wright Foundation administration.



Figure 9-3 - Site plan of Taliesin West showing the locations of spaces used by the visitors' services staff.



Figure 9-4 - Site plan of Taliesin West showing the locations of spaces used for tours.



Figure 9-5 - Site plan of Taliesin West showing the locations of spaces used by the Legacy Fellows.

10. CONDITION ASSESSMENT & EVALUATION OF INTEGRITY

Harboe Architects conducted an onsite survey of the building complex in the historic core at Taliesin West in order to evaluate both the physical condition and material integrity of each building element. The Condition Assessment and Evaluation of Integrity is organized by building space and includes a description of the existing building materials, their historic integrity, and their existing conditions. The assessment of each building is categorized by building element. Material integrity was determined based on the surveys conducted of each building component and historic research. The material integrity was a contributing factor in determining the level of significance of each building component. A more detailed evaluation of significance can be found in Chapter 5, Preservation Philosophy.

Environmental management systems and site utilities were surveyed and assessed by Watson & Henry Associates. For these assessments see the tables included at the end of Chapter 8, Recommended Scope of Work.

OFFICE

Historic Significance

The Office was one of the first building elements constructed at Taliesin West and was the main office for Frank Lloyd Wright and the location where clients would meet with Wright to discuss projects. Today it is the first stop on tours of the site. The Office is a significant structure in the history and life of Taliesin West.

Level of Significance

Primary

Walls

Materials

The walls and fireplace are constructed of desert masonry. Desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls and fireplace date from the original construction of the Office in 1939 and retain their material integrity.

Condition

The desert masonry walls as well as the fireplace are in good condition. There is generally a light soiling on all desert masonry with heavier soiling at the fireplace. There are also select areas of non-matching patches on both the interior and exterior walls.

Flooring

Materials

The floor is comprised of floated concrete configured in panels that are separated by 2-1/2" double score joints. The joints originally had exposed small stone aggregate. The floor is integrally colored concrete. Originally the site paving and Office floor were continuous inside to out. The current floor dates from after the period of significance (1938-59).

Condition

The flooring is in fair to good condition. There are select areas where there are holes in the concrete floor. There are also a few shrinkage cracks in the concrete.

Roof Framing

Materials

The original framing members were redwood and were constructed in a different configuration than the

existing roof framing. The configuration of the framing has changed multiple times since the Office was completed in 1939. This is evident in historic photographs. The current built up beams are constructed of Douglas fir with a concealed steel flitch plate and exposed steel internal gutter at the underside of the trusses. The wood and steel are painted red. The wood members date from 1998. The steel flitch plate and gutters date from 1958.

Condition

The existing built up beams are in fair condition. There are localized areas of UV and rot damage. This is typically limited to the jointed corners and at the bottom of the built up beams where they rest on the desert masonry. Additionally, the design of the beams and roof system does not appear to provide significant lateral bracing between trusses allowing for significant lateral deflection in heavy wind conditions.

Roof Panels

Materials

The Office was originally constructed with operable canvas roof panels consisting of canvas wrapped on a wood frame. These panels were operable to control sun shading and natural ventilation. The canvas roof panels were replaced and reconfigured frequently (every 1 to 3 years from 1938 to 1959). Following Wright's death, the Fellowship replaced the fabric roof panels with fiberglass panels. These panels were replaced in the 1990s with acrylic panels. The current roof panels are constructed of fixed translucent acrylic panels with a supplemental canvas interior panel suspended below the acrylic panels to diffuse the day light and replicate the appearance of the original canvas panels. This system dates from 1998.

Condition

The existing acrylic roof panels leak. This typically occurs at the intersection of the acrylic panels and the built up wood beams. This joint is simply a sealant joint between the two materials. The wood and acrylic move differently with thermal expansion and the lateral deflection of the wood beams likely contribute to the failure of the sealant joint. The texture and appearance of the acrylic panels also differs from the canvas used during the period of significance.

Glazing

Materials

The Office was originally constructed without glazed enclosures. It was an open air structure with operable panels constructed of canvas on wood frames. Photographic evidence suggests that glazing was first added to the Office in the late 1940s and continued to be added and modified throughout Wright's lifetime and after.

Condition

The glazing is typically in good condition. The glass is typically set with minimal metal framing to minimize its visual modification to the original open air design. The addition of glazing has significantly decreased the option of cooling the Office with natural ventilation.

Doors

Materials

The metal and glass door and frame on the south side of the Office was added in the late 1940s/early 1950s. Before this time, the door opening was covered with canvas flaps or left open. The metal framed glass door on the west side of the Office dates from the 1980s. This doorway was open prior to the 1960s, at which time a louvered wood door was installed. This door was removed in the 1980s prior to the installation of the current door.

Condition

The doors and frames are in good condition.

Sunshades

Materials

The checkerboard patterned sunshades on the east and west sides of the office were originally constructed of canvas on wood frames. The current sunshades are constructed of painted plywood and supported by wood pinnacles and date from after the period of significance.

Condition

The sunshades are in fair condition.

Lighting

Materials

The office has never had fixed lighting. It was originally and continues to be lit with free standing and task lighting.

Condition

Task lighting in the Office is adequate for its current use.



Figure 10-1 - Office Location Plan

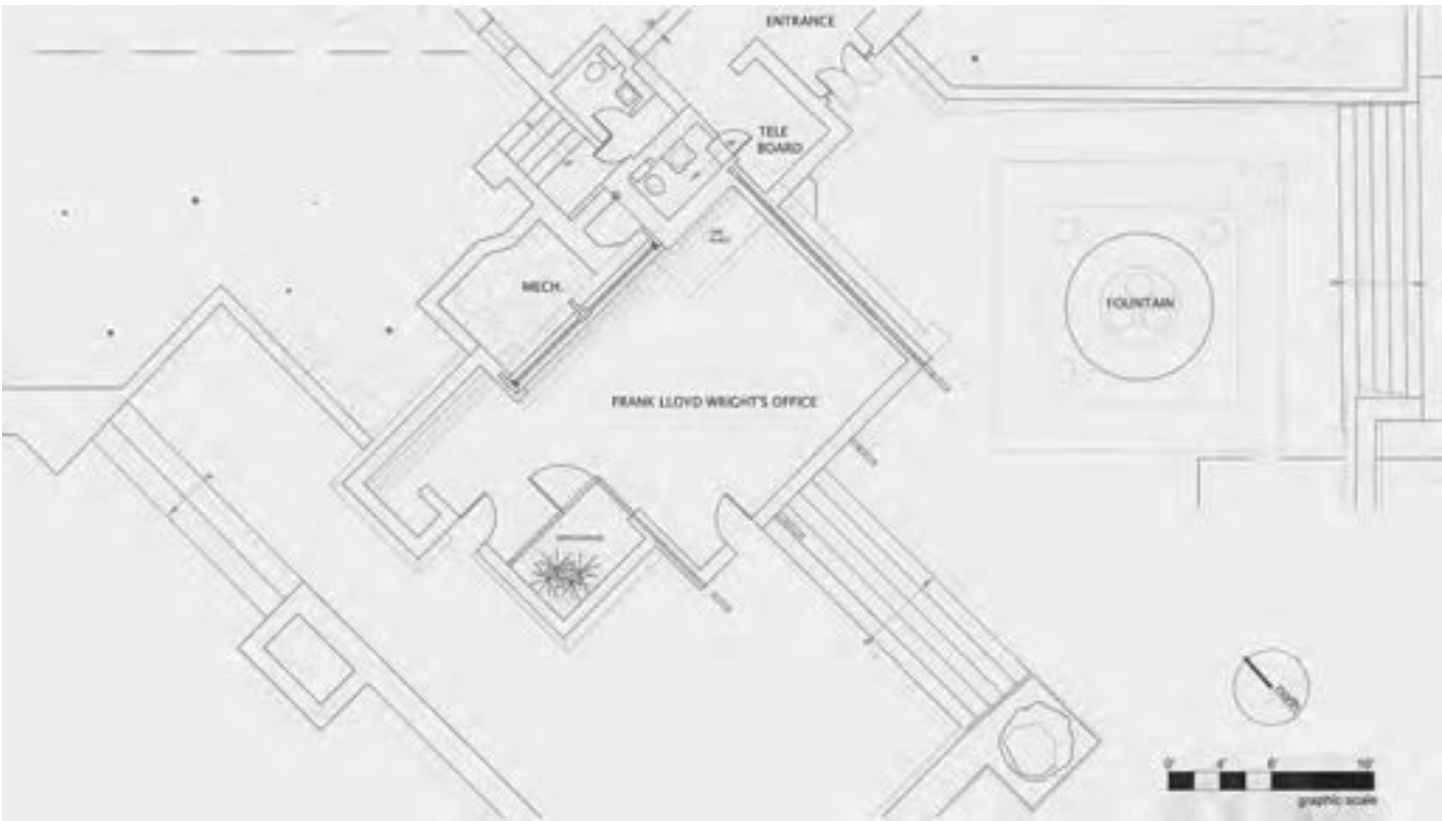


Figure 10-2 - Office Floor Plan



Figure 10-3 - South side of the office in 2014 (Harboe Architects).



Figure 10-4 - Southwest side of the office in 2014 (Harboe Architects).



Figure 10-5 - Roof trusses on the office in 2014 (Harboe Architects).



Figure 10-6 - North clerestory windows and roof on the office in 2014 (Harboe Architects).



Figure 10-7 - Sunshade and supports on the office in 2014 (Harboe Architects).



Figure 10-8 - Roof on the office in 2014 (Harboe Architects).



Figure 10-9 - Interior of the office looking east in 2014 (Harboe Architects).



Figure 10-10 - Interior of the office looking west in 2014(Harboe Architects).

DRAFTING STUDIO

Historic Significance

The Drafting Studio was one of the first building elements constructed at Taliesin West and was the center of design and drawing production for Frank Lloyd Wright and the Fellowship. Today it still functions in a similar way for students of the Frank Lloyd Wright School of Architecture. The Drafting Studio is a significant structure in the history and life of Taliesin West. It is recommended that the Studio continues to be used for its original purpose.

Level of Significance

Primary

Walls & Piers

Materials

The walls, piers and fireplace are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls, piers and fireplace date from the original construction of the Drafting Studio in 1939 and retain their material integrity.

Condition

The desert masonry walls and piers as well as the fireplace are original elements and are in good condition. There is generally a light soiling on all desert masonry with heavier soiling at the fireplace. There are also select areas of non-matching patches.

Flooring

Materials

The floor is comprised of floated concrete configured in panels that are separated by 2-1/2" mortar joints. The mortar joints originally had exposed small stone aggregate. The floor has been painted red since 1958. There is a section of floor surrounding the fireplace that is stone paving, using the same stone as the desert masonry fireplace and piers.

Condition

The flooring is in poor to fair condition. The concrete has many areas of heavy wear and loss of the original smooth face texture. There are also shrinkage cracks in most of the panels. Many of the mortar joints do not contain their original mortar. In many cases it was removed to run power and was replaced with smooth mortar without exposed stones and with metal cover plates. Minor interventions such as junction boxes for power and data have also been recessed into the flagstone floor.

Roof Structure

Materials

The original roof framing was redwood and was constructed in a different configuration than the existing framing members, as evident in historic photographs. The current roof framing is constructed of Douglas fir with concealed steel flitch plates and exposed steel internal gutters at the underside of the wood members. The wood and steel are painted red. The wood members date from 1998. The steel flitch plates and gutters date from 1958.

Condition

The existing wood roof framing is in fair condition. There are localized areas of ultraviolet and rot damage. This is typically limited to the jointed corners of the built up beams and at the bottom of the beams where they rest on the desert masonry. Additionally, the design of the built up beams and roof system does not appear to provide significant lateral bracing between beams allowing for significant lateral deflection in heavy wind conditions.

Roof Surface

Materials

The studio was originally constructed with operable canvas roof panels consisting of canvas wrapped on a wood frame. These panels were operable to control sun shading and natural ventilation. The canvas roof panels were replaced and reconfigured frequently (every 1 to 3 years from 1938 to 1959). Following Wright's death, the Fellowship replaced the fabric roof panels with fiberglass panels. These panels were replaced in the 1990s with acrylic panels. The current roof panels are constructed of fixed translucent acrylic panels with a supplemental canvas interior panel suspended below the acrylic panels to diffuse the day light and replicate the appearance of the original canvas panels. This system dates from 1998.

Condition

The existing acrylic roof panels leak. This typically occurs at the intersection of the acrylic panels & the built up wood beams. This joint is simply a sealant joint between the 2 materials. The wood and acrylic move differently with thermal expansion and the lateral deflection of the wood beams likely contribute to this failure. The acrylic panels are fixed in place eliminating sun shading and ventilation control. The texture and exterior appearance of the acrylic panels also differs significantly from the historic canvas panels used during Wright's lifetime.

Glazing

Materials

The studio was originally constructed without glazed enclosures. It was an open air structure with operable panels constructed of canvas on wood frames. It is believed that, based on photographic evidence, glazing was first added to the studio at the upper north clerestory in the late 1940s. Glass was added to the south windows in the early 1950s. In addition, the west end wall of the studio was modified adding wood and steel framing with glass in the mid-1950s. A wood frame wall with glass and flush wood doors was added along the north wall between the desert masonry piers in the mid-1950s. The solarium on the southeast side of the drafting room was enclosed in glass in 1958.

Condition

The glazing is typically in good condition with some sealant and paint splatter at several locations. The glass is typically set with minimal wood framing to minimize its visual modification to the original open air design. The addition of glazing has significantly decreased the option of cooling the studio with natural ventilation.

Doors

Materials

The doors are flush wood double doors painted red with metal hardware. These doors are located along the north side of the Drafting Studio and were added in the mid-1950s. Prior to that time the openings were covered in canvas or left open depending on the season. At

Condition

The doors are in fair condition. Some of the doors need to be reset so that they close properly. The hardware on the doors is worn and some of the doors are missing thresholds or the thresholds are damaged.

Sunshades

Materials

The checkerboard patterned sunshades on the east and west sides of the office were originally constructed of canvas on wood frames. The current sunshades are constructed of painted plywood and canvas and are supported by wood pinnacles and date from after the period of significance.

Condition

The sunshades are in good condition.

Pergola

Materials

The pergola was originally constructed of redwood framing. In 1970 the wood pergola was replaced with one constructed of painted steel and raised ten inches higher than the original pergola.

Condition

The pergola is in good condition.

Millwork

Materials

The layout table along the southwest wall was added in the late 1950s and originally had half round wood trim. It was resurfaced with plywood and square stock trim in 2011.

Condition

The table and shelves are in poor condition. There is extensive termite and water damage to the wood.

Lighting

Materials

The original lighting in the studio was somewhat makeshift and utilitarian consisting of exposed hung wiring with simple exposed bulbs with metal reflectors. The wood pendant lights with exposed lamps were added in 1951 and were constructed of redwood. This corresponds with the conversion of the site to public electricity. The current pendant lights are painted plywood and were added in the 1980s. Architectural accent lighting was added at the integral gutters in 1998.

Condition

The wood pendant lights are in good condition. The wiring of these fixtures consists of exposed wiring and terminations with taped wire splices. The wiring does not meet UL standards & may pose a potential fire risk. The added accent lighting is outside the period of Frank Lloyd Wright. The existing lighting is harsh and often does not highlight and compliment the architecture as well as it could. The architectural accent lighting creates hot spots along the structure and does not evenly distribute the light.

Vault

Materials

The vault is constructed of desert masonry walls and roof with a painted concrete floor. It was the first permanent structure to be built at Taliesin West and housed Frank Lloyd Wright's project drawings. The interior walls and ceiling are covered with acoustical tiles and lighting is surface mounted fluorescent fixtures. There are both wood and metal shelves in the vault.

Condition

The desert masonry walls are in good condition. The painted concrete floor is in fair condition. The paint finish is worn and faded. The roof is in fair condition. There appear to be areas that leak based on water damaged acoustical tiles inside the vault. The lighting and shelving appear to be in good condition.

Solarium

Materials

The solarium was constructed in 1958 over an existing planter box. It has a low desert masonry wall, painted concrete floor, a steel framed glass enclosure, flat roof with plywood decking, built-up membrane roofing and fiberglass skylights.

Condition

The solarium is in fair/good condition. The painted concrete floor is worn and faded. The steel mullions and glass are generally in good condition. The roof is in fair condition.



Figure 10-11 - Drafting Studio Location Plan

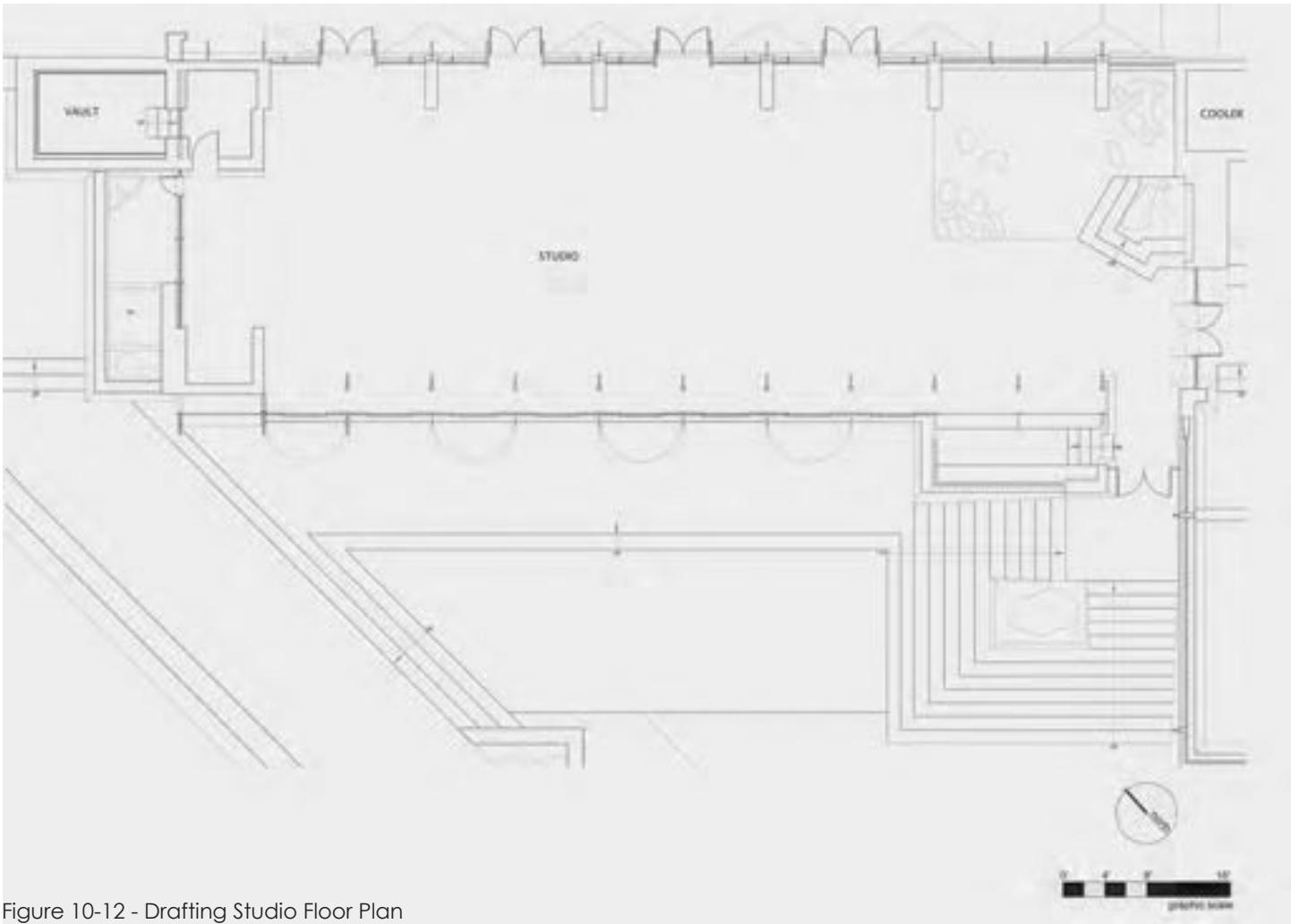


Figure 10-12 - Drafting Studio Floor Plan



Figure 10-13 - Southeast side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-14 - Solarium and terrace on southeast side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-15 - Roof on Drafting Studio, 2014 (Harboe Architects).



Figure 10-16 - Northwest side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-17- Sunshade and decorative wood pinnacles, 2014 (Harboe Architects).



Figure 10-18 - Damaged wood on south side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-19- Pergola on north side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-20 - Drafting studio roof, 2014 (Harboe Architects).



Figure 10-21 - Interior of Drafting Studio looking northwest, 2014 (Harboe Architects).



Figure 10-22 - Interior of Drafting Studio looking southeast, 2014 (Harboe Architects).



Figure 10-23 - Interior of Drafting Studio looking south, 2014 (Harboe Architects).



Figure 10-24 - South windows with damaged canvas above, 2014 (Harboe Architects).



Figure 10-25 - Damaged canvas roof, 2014 (Harboe Architects).



Figure 10-26 - Soffit under north clerestory, 2014 (Harboe Architects).

KITCHEN

Historic Significance

The Kitchen was one of the first building elements constructed at Taliesin West and was and still is where meals at Taliesin West are prepared each day. In Wright's lifetime all meals were prepared in the kitchen by members of the fellowship. Today there is a chef that prepares meals for students, staff and the remaining fellows. While there have been upgrades to the Kitchen fixtures, equipment and finishes over the years, the form, materials and character have remained the same. The Kitchen is a significant structure in the history and life of Taliesin West.

Level of Significance

Primary

Walls

Materials

The walls in the Kitchen are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction of the Kitchen in 1939 and retain their material integrity.

Condition

The desert masonry walls are original elements and are in good condition. There is generally a light soiling on all desert masonry. There are also select areas of non-matching patches.

Flooring

Materials

The floor in the kitchen is painted concrete. The floor was originally unpainted concrete. It is believed that the floor in the Kitchen was painted red at the same time as the Drafting Studio floor.

Condition

The kitchen floor is in poor to fair condition. The concrete has many areas of heavy wear and loss of the original smooth face texture. The red paint is also worn and has chipped away in some locations.

Roof

Materials

The roof of the kitchen is a concrete slab supported on steel beams with a built-up membrane on top. A portion of the kitchen is under the guest deck. The current kitchen roof dates from 1970 when guest deck was reconstructed in concrete and steel.

Condition

The kitchen roof is in poor condition. There are cracks and sections of separation in the concrete slab as well as water infiltration through the slab.

Ceiling

Materials

The ceiling in the kitchen is foam with a gypsum coating. This ceiling is believed to date from the reconstruction of the guest deck in 1970. The original ceiling was believed to be the exposed underside of the the wood decking.

Condition

The gypsum coated foam ceiling is problematic because it is easily damaged and there are multiple areas of damage. There are also some areas of water damage.

Structural Beams

Materials

The beams are steel that are boxed out with painted wood planks. The structural steel beams date from 1970 when the guest deck was reconstructed.

Condition

The beams appear to be in good condition, however, because the steel is incased in wood, a full assessment of the steel beams was not conducted.

Glazing

Materials

The glazing above the kitchen area consists of tinted, sliding windows. These windows were added during the 1970 reconstruction of the Guest Deck. There is also a clear glass window above the shelves on the west side of the dishwashing area. Glass was added at this location in 1970 when the county required that it be enclosed.

Condition

The glazing appears to be in fair condition. There are some cracks in the tinted windows.

Doors

Materials

There are wood double doors between kitchen and drafting studio. These doors date from 1970. Originally there were no doors in the opening between the two spaces. There are wood and glass double doors between the kitchen and dining room. These doors were installed in 1970.

Condition

The doors appear to be in good condition. There are a few areas where the paint is chipped.

Lighting

Materials

The surface mounted lighting on the kitchen ceiling dates from the 1990s. This lighting is not from the Frank Lloyd Wright period. Originally simple pendant reflector lights were used in the kitchen.

Condition

The lighting in the kitchen appears to be in good condition.

Store Rooms

Materials

The store rooms have desert masonry walls, painted concrete floors and foam ceilings with a gypsum coating. Lighting in these rooms consists of exposed incandescent bulbs.

Condition

Desert masonry walls are in good condition. The painted concrete floors are in fair condition with significant wear and loss of surface finish. The ceilings are damaged with a significant number of holes and scratches.

Dishwash Area

Materials

The dishwash area in the Kitchen has a painted concrete floor, painted plaster walls, a ceramic tile counter with sinks, wood shelves, a stainless steel industrial grade dishwasher, and gypsum coated foam ceiling with surface mounted light fixtures.

Condition

The dishwash area is in fair condition. The painted concrete floor is worn. Some of the ceramic tile on

the counter is cracked or broken. The ceiling is damaged with several holes and scratches. The ceiling mounted light fixtures as well as the dishwasher appear to be in good condition.

Bell Tower

Materials

The bell tower is constructed of desert masonry with the support for the bell constructed of painted steel. The framing for the bell tower was originally redwood when it was first constructed in 1939. The steel reconstruction was completed in 1970.

Condition

The bell tower appears to be in good condition.



Figure 10-27 - Kitchen Location Plan



Figure 10-28 - Kitchen Floor Plan



Figure 10-29 - Interior of Kitchen looking north, 2014 (Harboe Architects).



Figure 10-30 - Interior of Kitchen looking up at clerestory windows, 2014 (Harboe Architects).



Figure 10-31 - Damaged kitchen ceiling, 2014 (Harboe Architects).



Figure 10-32 - Kitchen floor, 2014 (Harboe Architects).



Figure 10-33 - Kitchen dishwash area looking northwest, 2015 (Harboe Architects).



Figure 10-34 - Bell Tower, 2014 (Harboe Architects).

ORIGINAL DINING ROOM (BOARD ROOM)

Historic Significance

The Original Dining Room was one of the first building elements constructed at Taliesin West and was where the members of the fellowship ate their meals from 1938. In Wright's lifetime all meals were prepared in the kitchen by members of the fellowship. Today there is a chef that prepares meals for students, staff and the remaining fellows. The Kitchen is a significant structure in the history and life of Taliesin West.

Level of Significance

Primary

Walls/Piers

Materials

The walls in the Original Dining Room are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction of the Original Dining Room in 1939 and retain their material integrity. The desert masonry piers inside the Original Dining room were added in the early 1950s.

Condition

Desert masonry is in good condition. There is generally a light soiling on the surface of the desert masonry with heavier soot and soiling at fireplace. There is also evidence of previous roof leaks on the desert masonry on the east wall and paint splatter on the desert masonry on the west wall. The desert masonry piers have sections of non-matching patches.

Flooring

Materials

The floor is floated concrete configured in panels that align with the structural columns in the fireplace. The concrete panels are separated by 2-1/2" mortar joints that contain small stone aggregate. The floor is painted red. The floor appears to be from the initial construction in 1939 except for a few later patches. Based on photographic evidence oral histories the floor was first painted red in the late 1950s.

Condition

The concrete flooring is in fair/poor condition. The concrete has many areas of heavy wear and loss of original smooth face texture. It is suspected that there maybe select areas of previous patches, but this would not be known unless the existing paint coating is removed. There are shrinkage cracks in most of the panels. These cracks are typically fairly tight with only slight or no displacement in the concrete. There are also a select number of holes in the floor at the northwest side of the room.

Additionally there are select areas of delamination of the surface concrete in which the aggregate is exposed. Select areas of the mortar joints adjacent to the added desert masonry piers have been covered over with smooth concrete to match the floor. These are likely areas of patching in the floor.

Roof

Materials

The roof structure consists of wood framing with a lightweight concrete deck. It is suspected much of the wood framing is original or at least from period of Frank Lloyd Wright. There have been modifications to the structural system including steel plates and the addition of desert masonry columns. The columns were added in the mid-1950s.

Condition

There is a significant amount of UV damage and rot at the exterior wood beams and trim as well as the underside of the wood decking outside the south entry. There is also some damage and rot at the ends of the interior framing at the skylight.

Ceiling

Materials

The ceiling in the Original Dining Room is made up of stained plywood panels framed with wood trim. During the Frank Lloyd Wright period, the ceiling was canvas. A small section of canvas, believed to be pre-1959, is located above the door on the southwest side of the room.

Condition

The plywood panels are in fair/good condition. There are some scratches as well as water staining.

Glazing

Materials

When it was constructed in 1939, the Original Dining Room had no glazing. The opening in the southwest wall did not exist originally. The opening was added around 1946 and covered with operable canvas panels. In the 1950s the opening was expanded and made into a doorway with glass doors. Glazing was first added in the late 1940s at the clerestory. Originally, the clerestory openings were open to the outside with no glazing or wood shutters. The current glazing is a mix of glass dating from the 1940s and later replacement panels.

Condition

The glazing is in fair/poor condition. Many panels of glass are cracked or chipped and the glass at the southeast corner was replaced with a plastic panel. Additionally, when the addition to the Wes Peter's Apartment was constructed the clear glazing at the east clerestory was removed and replaced with mirrored glass.

Skylights

Materials

When the Original Dining Room was constructed in 1939 the skylights were covered with canvas panels. The canvas panels were replaced with glass in the 1950s and later with fiberglass panels in the 1960s. The current skylight is made up of fiberglass panels set on wood framing with sealant at all joints.

Condition

The fiberglass panels are in poor condition. The panels leak at failed sealant joints and are heavily soiled, which diminishes the quality of natural light in the room.

Doors

Materials

The double doors on the southwest side of the Original Dining Room are glass with wood frames and pulls. The door on the northeast side of the room is flush wood painted red with a Plexiglas sidelight. It is believed that this was originally open with no door between the dining room and kitchen.

Condition

The doors are in fair to good condition.

Lighting

Materials

The Original Dining Room did not have any fixed lighting when it was first constructed. None of the current lighting dates from the Frank Lloyd Wright period. There is currently cove lighting on the east and west sides of the skylight. This lighting is simply fluorescent tube fixtures mounted on the wood cove. The fluorescent lighting likely dates from the 1990s. Cove lighting was first added in late 1950s by Arnold Roy under the direction of Frank Lloyd Wright. The directional down lights at the plywood panel ceilings were likely added in the 1990s.

Condition

The cove lighting and the directional down lights are in fair condition. The wiring and electrical conduit requires upgrading.

Decorative Painted Panel

Materials

The decorative panel on the northwest side of the fireplace was painted by Gene Masselink in the 1940s. It consists of painted geometric patterns on a plywood panel.

Condition

The panel is in poor condition. The paint is worn and fading and the plywood is damaged in several locations.

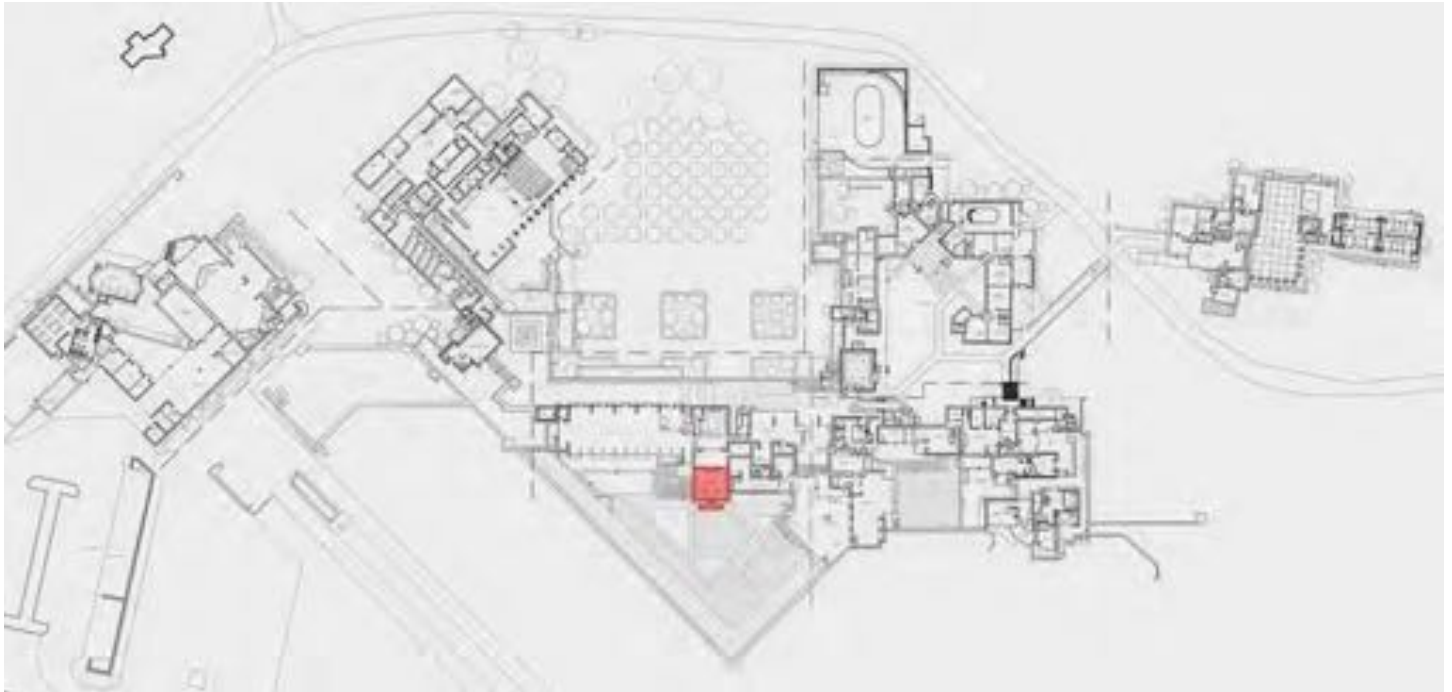


Figure 10-35 - Original Dining Room (Board Room) Location Plan

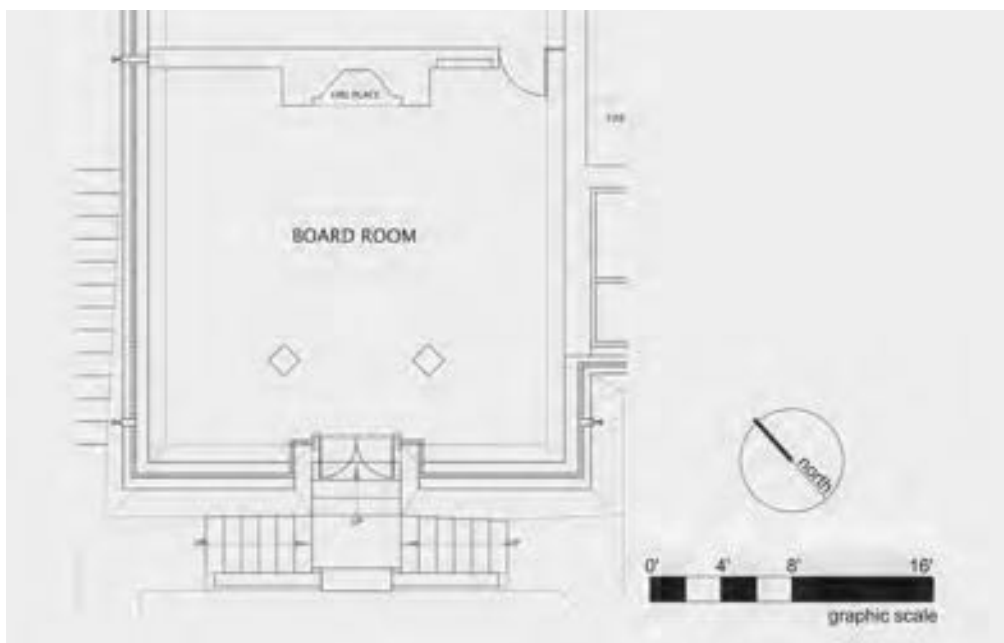


Figure 10-36 - Original Dining Room (Board Room) Floor Plan



Figure 10-37 - Exterior of Original Dining Room (Board Room) looking north, 2014 (Harboe Architects).



Figure 10-38 - Exterior of Original Dining Room (Board Room) looking south, 2014 (Harboe Architects).



Figure 10-39 - Roof of Original Dining Room (Board Room) showing skylight, 2014 (Harboe Architects).



Figure 10-40 - Underside of wood deck, 2014 (Harboe Architects).



Figure 10-41 - Interior of Original Dining Room looking northeast, 2014 (Harboe Architects).



Figure 10-42 - Water damage on desert masonry wall, 2014 (Harboe Architects).



Figure 10-43 - Windows on northwest wall of Original Dining Room, 2014 (Harboe Architects).



Figure 10-44 - Interior of Original Dining Room looking southwest, 2014 (Harboe Architects).



Figure 10-45 - Wood trellis work under the skylight, 2014 (Harboe Architects).



Figure 10-46 - Board room floor, 2014 (Harboe Architects).

KIVA

Historic Significance

The Kiva was one of the first building elements constructed at Taliesin West. It was originally used as a theater; however, by the late 1940s the Fellowship outgrew the space and it was replaced by the Cabaret Theater. At that time, the Kiva became a library for the fellowship. Today it functions as a lecture and presentation space for students of the Frank Lloyd Wright School of Architecture and is part of the historic tour program. It is part of the main historic core at Taliesin West and has primary significance.

Level of Significance

Primary

Walls & Ceiling/Roof

Materials

The desert masonry walls, ceiling/roof, as well as the fireplace are original elements. Gold paint was applied to the concrete matrix on the interior walls in the mid-1950s. At the south end of east wall approximately 5' of stepped section of desert masonry appears to be cut out. This was likely done to accommodate the piano that historic photos show and oral histories confirm was in this approximate location. The desert masonry inside the cabinets on the south side of the east wall is not painted suggesting that the gold paint treatment came after the cabinets were installed at this location.

Condition

The desert masonry is in good condition. There is generally a light soiling on the surface of the desert masonry with heavier soot and soiling at fireplace.

Roofing

Materials

The current roof on the Kiva is a liquid applied built-up membrane roof on top of the concrete deck. The roofing on the Kiva has been replaced several times. When it was first built the roofing material was white lead and canvas.

Condition

The roof is in good condition.

Wood Projection Booth

Materials

The projection room is a wood framed, wood clad structure that was added to the north side of the Kiva in 1941. Some of the wood elements appear to be aged. There are some newer framing members that were added in 2013.

Condition

The wood cladding on the exterior of the projection booth appears to be in relatively good condition. The floor of the projection booth is in poor condition. There is significant termite damage on the wood decking that forms the floor.

Interior Millwork

Materials

The historic wood trim in the Kiva was all replaced in the late 1990s. The cabinets on the southeast end of the Kiva were added in the 1950s. The Kiva currently has wood trim and other millwork at the following locations:

- Painted wood trim around the cove at center of ceiling.
- At the north and south ends of ceiling.

- Painted wood trim running east and west at the perimeter field of the ceiling.
- On the east and west walls above the windows.
- Above the projection booth windows at the north wall.
- Three levels of wood shelving above the stepped desert masonry around perimeter of the room.
- Plywood wall panels at the east, north, west walls.

Condition

The wood trim and millwork appears to be in good condition. There are some wood shelves missing inside the plywood cabinets, as well as some staining and discoloration, possibly from previous roof leaks, on the wood trim at the southeast and northeast corners of the Kiva.

Flooring

Materials

The concrete floor dates from the 1980s. The current flooring consists of smooth finish, integrally colored concrete with double score joints in a grid pattern.

At the entry there is evidence that the flooring on the interior has been modified. There is desert masonry at the threshold with a messy transition to the concrete flooring. Desert masonry is also present at the hearth.

Condition

The existing flooring is in good condition. There are some shrinkage cracks, however, these cracks are typically fairly tight with only slight or no displacement.

Wood Entry Door

Materials

The painted wood entry door at the Kiva is not original. A new door was installed inbound from the original location in the 1960s and the desert masonry pier to the east of the original door was removed.

Condition

The door is in good condition.

Lighting

Materials

The original lighting in the Kiva was minimal. The wood pendant lights with exposed lamps were added in the early 1950s and rebuilt in the 1990s. The addition of the pendants in the 1950s corresponds with the conversion of the site to public electricity and the conversion of the Kiva from a theater into a library. Based on historic photographs, it appears there have always been floor lights in the Kiva. The current floor lights likely date from when the floor was redone. Track lighting was added after Wright's death.

Condition

The lighting appears to be in good condition.



Figure 10-47 - Kiva Location Plan

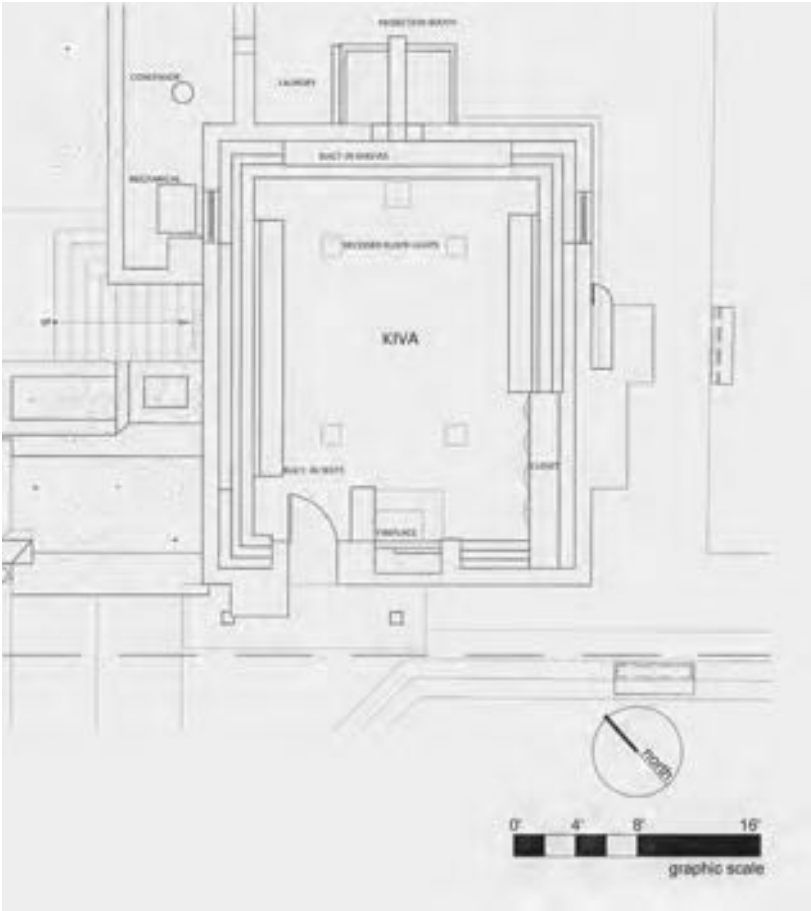


Figure 10-48 - Kiva Floor Plan



Figure 10-49 - Exterior of Kiva looking east, 2014 (Harboe Architects).



Figure 10-50 - Exterior of Kiva looking west, 2014 (Harboe Architects).



Figure 10-51 - Interior of Kiva looking north, 2014 (Harboe Architects).



Figure 10-52 - Interior of Kiva looking southwest, 2014 (Harboe Architects).



Figure 10-53 - Wood pendant light fixture in Kiva, 2014 (Harboe Architects).



Figure 10-54 - Interior of Kiva looking northeast, 2014 (Harboe Architects).

WILLIAM WESLEY PETERS/GENE MASSELINK ROOMS (WWP CONFERENCE ROOM)

Historic Significance

The William Wesley Peters Conference Room is a steel and glass structure that enclosed the terrace outside the William Wesley Peters and Gene Masselink Apartments in 1971. The apartments were part of the original construction at Taliesin West and have primary significance. Desert masonry walls and original openings still remain. The steel and glass structure was completed after the Frank Lloyd Wright period and has minor significance on the site.

Level of Significance

Primary/Minor

Walls

Materials

The desert masonry walls as well as the fireplace date from the original construction of the Peters & Masselink apartments in 1938-39. There is a partial height desert masonry wall that surrounds the William Wesley Peters conference room separates it from the sunset terrace on the east side.

Condition

The desert masonry walls as well as the fireplace are in good condition. There is generally a light soiling on the surface of the desert masonry with heavier soot and soiling at fireplace. The desert masonry walls appear to have been painted in the Wes Peters apartment.

Flooring

Materials

Originally the flooring was all unpainted concrete. Currently the concrete is covered in carpet. The floor in the bathroom is red ceramic tile.

Condition

The condition of the concrete floor under the carpet is unknown since it was not able to be surveyed. The tile flooring in the bathroom is in relatively good condition with some areas of staining around the toilet.

Ceiling

Materials

Additional research will be required to determine the original materials and finishes used in Peters' and Masselink's apartments. The current ceiling in the conference room is exposed steel beams with painted gypsum board panels between the steel beams. In the former Peters/Masselink quarters, the beams are veneered wood.

Condition

The ceiling appears to be in good condition.

Glazing

Materials

The Peters/Masselink apartments originally had no glass. All openings were covered with canvas panels. The openings were subsequently infilled with glass doors in the 1950s. The terrace outside the apartments was enclosed in glass in 1971. This enclosure drastically changed the appearance of the Wes Peters Apartment from the south.

Condition

The glazing appears to be in good/fair condition.

Doors

Materials

The Peters/Masselink apartments originally had no exterior doors. All openings were covered with canvas panels. The openings were subsequently enclosed with glass doors in the 1950s. When the terrace outside the apartments was enclosed in glass in 1971, painted metal and glass doors were added on the east side of the enclosure near the Sunset Terrace. The wood veneer doors at the kitchenette and bathroom were added after the terrace was enclosed.

Condition

All of the doors appear to be in good condition. There are minor scratches and delamination of the veneer on the wood veneer doors.

Millwork

Materials

The millwork in the Peters/Masselink rooms includes all built-in wood cabinetry with flush veneered doors, and wood veneer shelving. More research is needed to determine if any of the millwork is original and/or from the historic period of interpretation. There is plywood paneling in what was formerly Masselink's room that has decorative painting on it. This was painted by Gene Masselink.

Condition

The built in wood veneer cabinetry and shelving is in relatively good condition. There is some minor damage and delamination of the veneer, especially at corners and near the floor. The decorative painted plywood paneling in Masselink's room is in fair/poor condition. There is significant fading of the painted surfaces and some damaged to the plywood.

Clerestory

Materials

The clerestory dates from the Frank Lloyd Wright period. It is a wood frame structure with glass infill.

Condition

The clerestory currently is in poor condition. Water leaks in through the clerestory and has damaged the interior wood veneer.

Lighting

Materials

Lighting includes both wall mounted and ceiling fixtures with wood trim and frosted glass lenses. Lighting in Masselink's former room includes simple incandescent lighting with exposed bulbs mounted on the wood ceiling beams.

Condition

All lighting appears to be in good condition.



Figure 10-55 - Peters/Masselink Rooms (WWP Conference Room) Location Plan

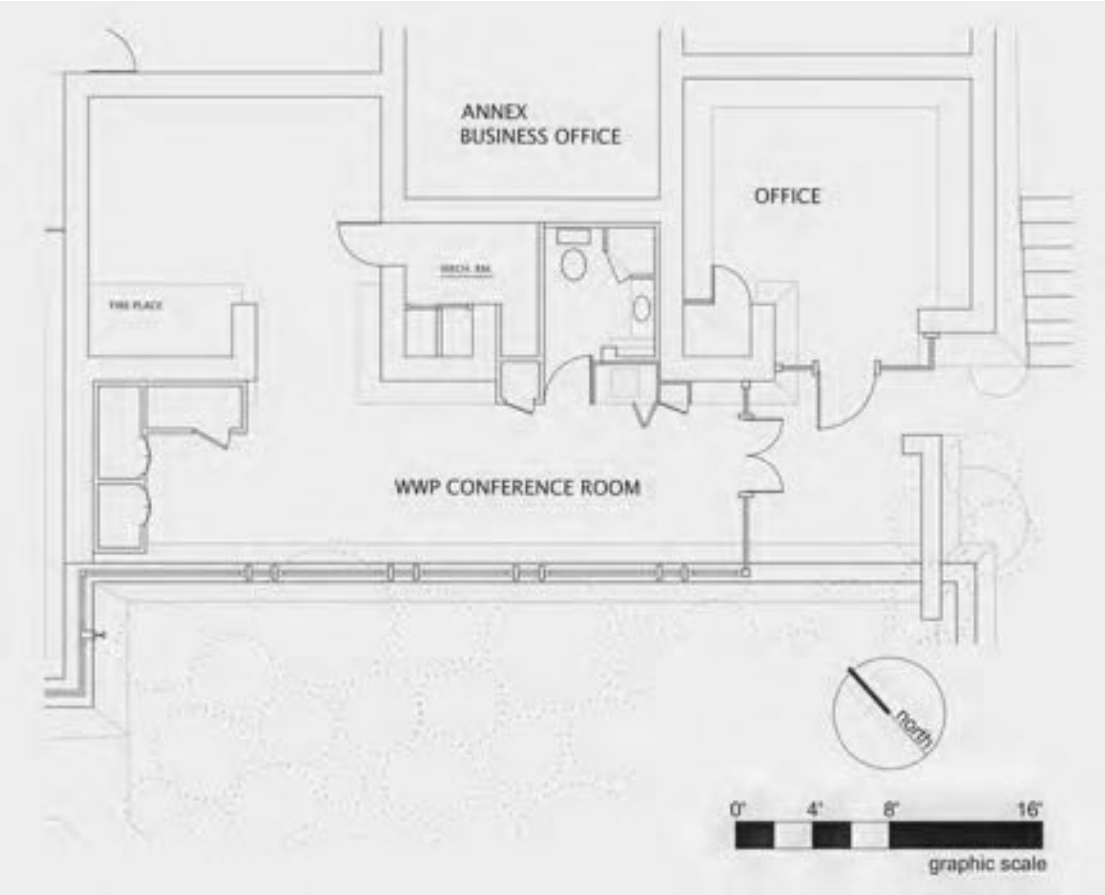


Figure 10-56 - Peters/Masselink Rooms (WWP Conference Room) Floor Plan



Figure 10-57 - Exterior of Peters Apartment (WWP Conference Room) in 2014 (Harboe Architects).



Figure 10-58 - Interior of Peters Apartments (WWP Conference Room) in 2014 (Harboe Architects).



Figure 10-59 - Interior of WWP Conference Room looking east, 2014 (Harboe Architects).



Figure 10-60 - Interior of WWP Conference Room looking west, 2014 (Harboe Architects).



Figure 10-61 - Interior of Wes Peters room looking northeast, 2014 (Harboe Architects).



Figure 10-62 - Gene Masselink room (Director's office) looking northeast, 2014 (Harboe Architects).

GARDEN ROOM

Historic Significance

The Garden Room was completed in 1940 and was the main living room for the Wrights. It was a place where they entertained guests and held special evening events for the apprentices. The Frank Lloyd Wright School of Architecture and the Frank Lloyd Wright Foundation continue to use the Garden Room to host parties and special events and it is one of the key spaces guests visit on tours of the site. The Garden Room was part of the original construction at Taliesin West and has primary significance. The Garden Room has been renovated and added onto multiple times since its initial construction in 1940. The last major renovation was in the 1990s.

Level of Significance

Primary

Walls & Piers

Materials

The walls in the Garden Room, as well as the fireplaces in , are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1940 and retain their material integrity.

Condition

The desert masonry walls and piers as well as the fireplace are in good condition. There is generally a light soiling on all desert masonry with heavier soiling at the fireplace. There are also select areas of non-matching patches.

Flooring

Materials

The floor is painted concrete with narrow vents that run east-west across the floor. The vents were installed during the 1990s renovation for air conditioning. The concrete is covered in carpet. There is a flagstone floor at the east entry.

Condition

The floor is in fair condition. The carpet is worn and soiled. The condition of the underlying concrete floor is unknown since the carpet was not removed during the survey of the Garden Room. The flagstone floor at the entry appears to be in good condition.

Roof Framing

Materials

The original built-up wood beams were described as being made of redwood and were constructed in a different configuration than the existing ones as evident in historic photographs. The current roof beams are constructed of Douglas fir with a concealed steel fitch plate and exposed steel internal gutter at the underside of the beams. The wood and steel are painted red. The wood members date from 1998. The steel fitch plates and gutters date from 1958.

Condition

The existing built-up wood beams are in fair condition. There are localized areas of UV and rot damage. This is typically limited to the jointed corners of the beams and at the bottom of the beams where they rest on the desert masonry. Additionally, the design of the wood beams and roof system does not appear to provide significant lateral bracing between trusses allowing for significant lateral deflection in heavy wind conditions.

Roof Panels

Materials

The Garden Room was originally constructed with operable canvas roof panels consisting of canvas wrapped on a wood frame. These panels were operable to control sun shading and natural ventilation. The canvas roof panels were replaced and reconfigured frequently (every 1 to 3 years from 1940 to 1959). In the late 1950s, Following Wright's death, the Fellowship replaced the fabric roof panels with fiberglass panels. These panels were replaced in the 1990s with acrylic panels. The current roof panels are constructed of fixed translucent acrylic panels with a supplemental canvas interior panel suspended below the acrylic panels to diffuse the day light and replicate the appearance of the original canvas panels. This system dates from 1998.

Condition

The existing acrylic roof panels leak. This typically occurs at the intersection of the acrylic panels & the wood trusses. This joint is simply a sealant joint between the 2 materials. The wood and acrylic move differently with thermal expansion and the lateral deflection of the wood trusses likely contribute to this failure. The acrylic panels are fixed in place eliminating sun shading and ventilation control and creating a stagnant architecture in lieu of the changing dynamic of the operable canvas panels. The texture and appearance of the acrylic panels is also different and less of a natural material feel to it.

Flat Roofs

Materials

The flat roof over the Dining Cove and the roof over the porch enclosure on the east side of the Garden Room are built-up membrane roofs.

Condition

The flat roofs are in fair condition. There are some areas that leak as evident through water staining on the ceiling inside the Dining Cove.

Glazing

Materials

The Garden Room was originally constructed without glazed enclosures. It was an open air structure with operable panels constructed of canvas on wood frames. It is believed that glazing was first added to the Garden Room at the upper east clerestory in the late-1940s. In addition, the north end wall of the Garden Room was modified adding glass in the late-1940s. The porch on the east side of the Garden Room was enclosed in glass around 1952. Originally this area was covered with a canvas awning and open on all sides.

Condition

The glazing is typically in fair condition. The glass is typically set with minimal wood framing to minimize its visual modification to the original open air design. All of the horizontal glass panels at the clerestory are cracked. The addition of glazing has significantly decreased the option of cooling the Garden Room with natural ventilation.

Skylights

Materials

Wood-framed clear glass skylights are located in two locations; near the entry door on the west side of the room, and three square at the ceiling above the fireplace in the Dining Cove.

Condition

The skylights appear to be in good condition. There is no visible evidence of current or past leaks.

Doors

Materials

The door at the west entry to the Garden Room is made up of stepped wood panels painted red. This door is a replica of the original door and was installed during the last major renovation of the Garden Room in the 1990s. In 2012 the mahogany doors adjacent to the fireplace were replaced with new doors in Poplar. There is also a metal-framed glass door at the north end of the Garden Room and a flush wood door between the Dining Cove and kitchen in the Wrights' living quarters.

Condition

The doors appear to be in good condition. The paint is faded and worn in some areas.

Ceilings

Materials

The ceiling in the Garden Room is made up of a series of canvas panels on wood frames (See previous section on Roof Panels). The ceiling over the enclosed porch on the east side of the room is canvas on structural insulated panels. This ceiling dates from the 1990s renovation. Based on photo documentation it is believed that the ceiling was canvas in 1959. The ceiling in the Dining Cove is canvas except for the raised ceiling with the skylights, which is painted plaster. The ceiling inside the east entry hall is concrete.

Condition

The ceiling is in fair condition. There are areas of staining due to water infiltration. In addition, the plaster ceiling around the skylights in the Dining Cove is cracked in several locations.

Millwork

Materials

The interior wood trim, paneling, trelliswork below the skylights, and built in wood shelving and furnishings all date from the Frank Lloyd Wright period.

Condition

Wood millwork, cabinetry and furnishings are generally in good condition. There is some delamination of wood veneer.

Canvas Flaps

Materials

The canvas flaps over the clerestory windows on the east side of the Garden Room were added in the 1990s renovation.

Condition

The canvas flaps appear to be in good condition.

Lighting

Materials

Lighting in the Garden Room is provided with decorative wood and frosted glass fixtures that are integrated into the roof system. These lights were added in the late 1950s during Frank Lloyd Wright's lifetime and reconstructed in 1998. Additional lighting is provided at the skylights near the east entry, as well as a few surface mounted and recessed fixtures, and floor lamps.

Condition

The lighting in the Garden Room appears to be in good condition.



Figure 10-63 - Garden Room Location Plan

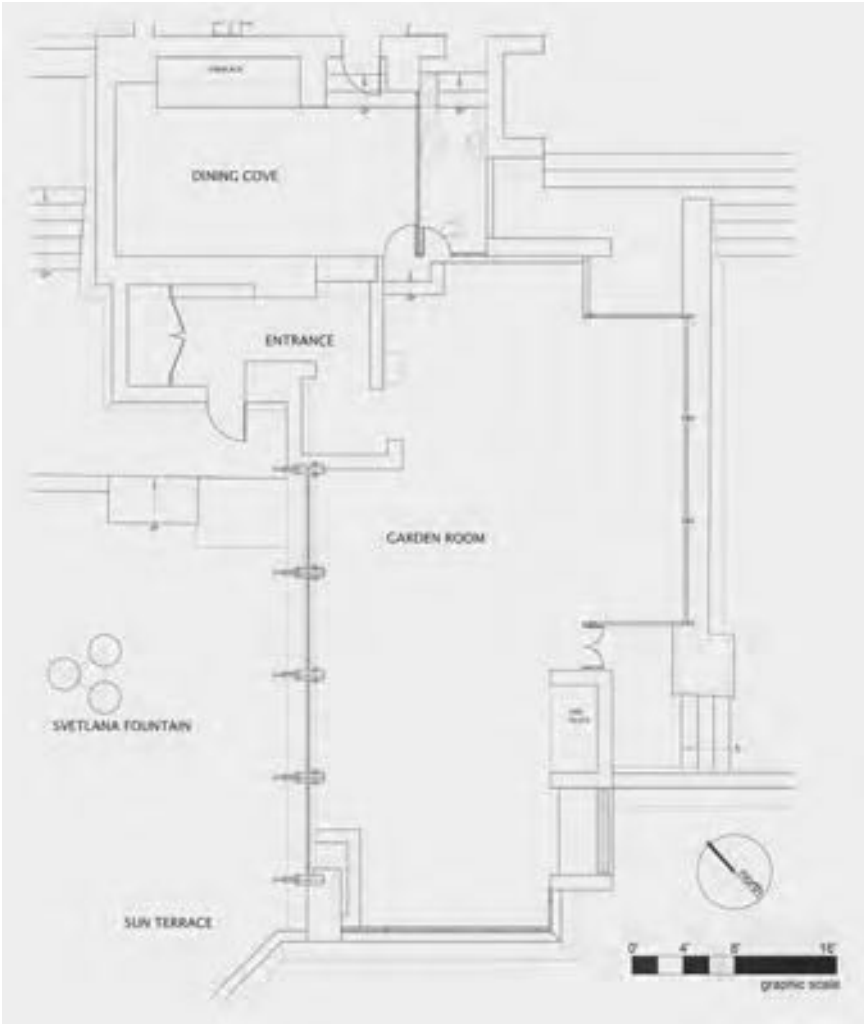


Figure 10-64 - Garden Room Floor Plan



Figure 10-65 - Exterior of Garden Room looking east, 2014 (Harboe Architects).



Figure 10-66 - Exterior of Garden Room looking northwest from garden, 2014 (Harboe Architects).



Figure 10-67 - Exterior of Garden Room looking southwest from terrace outside Swan Cove, 2014 (Harboe Architects).



Figure 10-68 - Interior of Garden Room looking southwest, 2014 (Harboe Architects).



Figure 10-69 - Interior of Garden Room looking northeast, 2014 (Harboe Architects).



Figure 10-70 - Interior of Garden Room looking east at fireplace, 2014 (Harboe Architects).



Figure 10-71 - Garden Room light fixtures, 2014 (Harboe Architects).



Figure 10-72 - Dining Cove, 2014 (Harboe Architects).



Figure 10-73 - Dining Cove fireplace, 2015 (Harboe Architects).



Figure 10-74 - Dining Cove skylights and ceiling, 2015 (Harboe Architects).

WRIGHTS' LIVING QUARTERS

Historic Significance

The Wrights' Living Quarters were completed in 1940 and include their bedrooms, the Swan Cove, kitchen, and bathrooms. The Living Quarters were part of the original construction at Taliesin West and have primary significance. The Wright's living quarters have been renovated and added onto multiple times since initially constructed in 1940. In 2003, the living quarters were restored back to their appearance during the Frank Lloyd Wright period and are part of the interpretive tour program.

Level of Significance

Primary

Walls

Materials

The walls in the living quarters are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1940 and retain their material integrity except for a section that was reconstructed during the 2003 restoration, where an opening created after Wright's death was reversed.

Condition

The desert masonry walls are in good condition. There is generally a light soiling on all desert masonry with heavier soiling at the fireplace.

Paving

Materials

The exterior paving at the terrace and steps on the south side of the Wrights' Living Quarters is painted concrete. While the steps and terrace were originally unpainted, they were painted by the time Wright died in 1959. A portion of the terrace was replaced during the remodeling in 2003.

Condition

The concrete steps and paving appear to be in good condition.

Flooring

Materials

The floors in the Wrights' living quarters are integrally colored concrete. These floors were originally unpainted concrete. The current floors date from the 1980s.

Condition

The floors are in good condition with some general wear on the surface.

Roofing

Materials

The roof structure is a lightweight concrete deck supported on steel beams. The top of the deck is covered in insulated foam and a white built-up liquid applied membrane. The original roof was 2x6 tongue and groove decking covered with canvas.

Condition

The roof is in fair condition. There are some holes caused by insects and birds.

Glazing

Materials

Glazing was added to the Wrights' living quarters in the late 1940s. Prior to that time, all openings were covered with canvas panels.

Condition

The glazing is in good condition.

Ceilings

Materials

The ceiling in the Wrights' Living Quarters is canvas separated by painted steel beams. This ceiling dates from the 2003 restoration. The original ceiling was canvas divided by wood beams.

Condition

The ceiling is in good condition.

Doors

Materials

The painted masonite bi-fold doors on the south (garden) side of the living quarters were added during the 2003 restoration. Originally the openings were covered with canvas panels. Masonite covered doors replaced the canvas panels in the late 1950s.

Condition

The doors are in good condition.

Millwork

Materials

The wood shelving, cabinetry and built-in wood furniture date from the 2003 restoration and replicate what was there during Wright's lifetime.

Condition

The millwork is in relatively good condition with only minor scratches and damage.

Kitchen

Materials

The kitchen has a concrete floor, painted textured plaster walls and ceiling, plywood base cabinets and shelves, and ceiling fixtures with metal frames and translucent square lenses. There is a painted metal and glass door on the north side of the kitchen.

Condition

The kitchen is in fair condition. The concrete floor is stained, the walls and ceiling are soiled, the base cabinets have loss of finish and some delamination, and the film on the glass in the door is wearing through at several locations.

Corridor

Materials

There is a corridor connecting Kitchen, Bar, and Restrooms. The south end of the corridor (between the Kitchen and Dining Cove) has a painted concrete floor, canvas ceiling, and desert masonry walls. There is a wood veneer door enclosing a small closet next to the Kitchen as well as built in plywood cabinets. The corridor outside the restrooms has a ceramic tile floor and wood paneled walls and ceiling. Lighting fixtures in the corridor are recessed ceiling fixtures with metal frames and translucent square lenses.

Condition

The south end of the corridor is in poor condition. The painted concrete floor is significantly worn, canvas ceiling is water stained, and the closet door is severely damaged. The plywood cabinets appear to be a more recent addition and are in good condition. The wood paneling and tile flooring in the corridor outside of the restrooms is in good condition.

Bar

Materials

The bar has a concrete floor, desert masonry walls, and wood bar with laminate counter.

Condition

The bar is in relatively good condition.

Restrooms

Materials

The restrooms have ceramic tile floors and wood paneled walls and ceilings. The sinks are porcelain with white ceramic tile counters. There are glass mirrors above the sinks in each bathroom. The mirrors are flanked by fluorescent light fixtures with translucent lenses. There are also ceiling fixtures that match those in the corridor.

Condition

The restroom materials and finishes are in good condition.

Water Tower

Materials

The Water Tower was originally constructed in 1947 and the roof was constructed in 1956 and altered several times over the years. The wood beams appear to be from the Frank Lloyd Wright period. The current roof deck is OSB and not original.

Condition

The Water Tower roof is in poor condition. The OSB decking is severely deteriorated as well as the 1x boards that support the decking. The wood beams are in fair condition with select areas of damage.



Figure 10-75 - Wrights' Living Quarters Location Plan

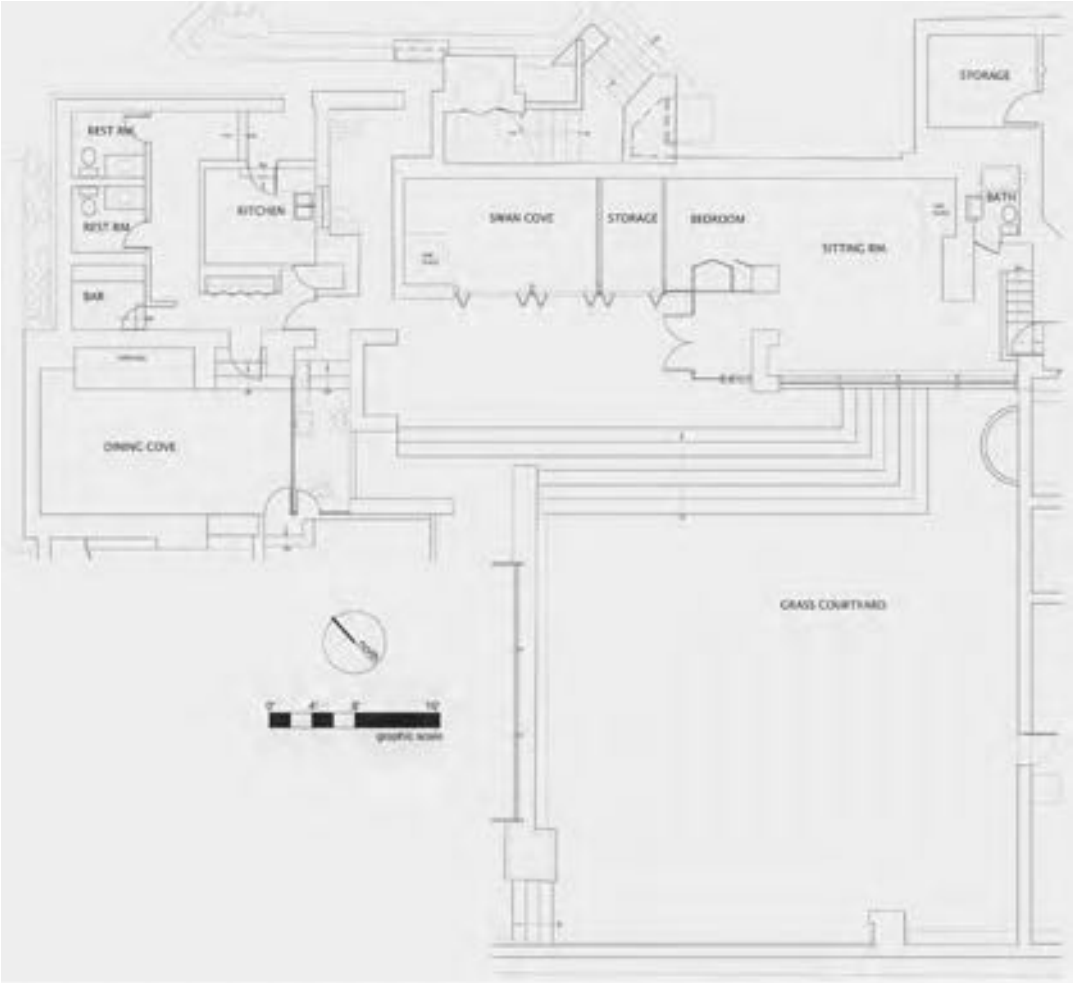


Figure 10-76 - Wrights' Living Quarters Floor Plan



Figure 10-77 - Wright's Living Quarters looking north from garden, 2014 (Harboe Architects).



Figure 10-78 - Wright's Living Quarters looking north at wood bi-fold doors, 2014 (Harboe Architects).



Figure 10-79 - Wright's Living Quarters looking north at Wright's bedroom, 2014 (Harboe Architects).



Figure 10-80 - Wright's Living Quarters looking south at sitting room, 2014 (Harboe Architects).



Figure 10-81 - Wrights' Living Quarters kitchen, 2015 (Harboe Architects).



Figure 10-82 - Metal and glass door in the kitchen, 2015 (Harboe Architects).



Figure 10-83 - Hallway outside the restrooms, 2015 (Harboe Architects).



Figure 10-84 - Sink in women's restroom, 2015 (Harboe Architects).



Figure 10-85 - Water stained canvas ceiling in hallway outside the kitchen, 2015 (Harboe Architects).



Figure 10-86 - Damaged wood veneer door and painted floor in the hallway outside the kitchen, 2015 (Harboe Architects).



Figure 10-87 - Water Tower, 2014 (Harboe Architects).



Figure 10-88 - Detail of Water Tower roof showing damaged wood, 2014 (Harboe Architects).

CABARET

Historic Significance

The Cabaret was completed in 1950 to replace the Kiva as the main theater space at Taliesin West. Although not part of the original construction at Taliesin West, the Cabaret is was constructed during the period of significance and remains largely intact and therefore has primary significance. Today it is used for tours and by the Frank Lloyd Wright Foundation and school for special events and lectures.

Level of Significance

Primary

Walls & Piers

Materials

The walls and piers in the Cabaret are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1950 and retain their material integrity.

Condition

The desert masonry walls are in good condition. There is generally a light soiling on all desert masonry with heavier soiling at the fireplace. There is also some efflorescence on the walls and ceiling of the Cabaret.

Roof Structure

Materials

The roof in the Cabaret is constructed of reinforced desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry roof deck dates from the original construction in 1950 and retains its material integrity. The reinforced concrete beams on the roof were added when the original concrete slab showed signs of failure.

Condition

The desert masonry and reinforced concrete beams appear to be in good condition; however, there may be underlying issues in the structure (See the report prepared by MCC 1200 Architectural Engineers in 2013).

Roof Surface

Materials

The current roof is a built-up membrane roof system. This roof is from after the period of significance.

Condition

The roof membrane is past its useful life and should be replaced.

Flooring

Materials

The flooring in the corridor is concrete. This is a thin layer of concrete that was applied over the original stone paving in the early 2000s. The floor in the theater is a concrete slab covered in carpet. The carpet does not date from the period of significance.

Condition

The concrete floor in the corridor appears to be in relatively good condition. The carpet in the theater is worn and near the end of its useful life.

Operable Panels

Materials

The operable panels along the corridor are painted wood. When originally completed in 1950, and

through the period of significance, the operable panels were canvas on wood frames and operated on a rope pulley system. The canvas panels were replaced with wood in the 1960s.

Condition

The operable wood panels appear to be in good condition.

Doors

Materials

The main entry doors on the cabaret are painted flush wood double doors and date from 2014, when the doors and pivots were replaced. The interior sides of the previous doors had decorative carved wood panels. These panels are original to the building. The decorative panels were removed in August of 2014 due to damage from continued use of the doors.

Condition

The wood doors are in good condition. The decorative carved wood panels are in poor condition and are deteriorating. The panels have been moved to the collections vault for preservation.

Built-in Seating

Materials

The seating consists of rows of benches with fabric-upholstered cushions as well as free standing chairs and tables. The benches were constructed in 1950. Originally there were more rows of bench seating. In the 1960s, every other row was removed to create more room for dining. The upholstery has been replaced multiple times since 1950.

Condition

The upholstery is worn and near the end of its useful life.

Lighting

Materials

There are three types of lighting in the Cabaret: the wall sconces along the west wall of the theater, the triangular lights in the base of the wall in the corridor and along the aisle in the theater, and the string lights at the ceiling. The sconces and triangular lights in the base of the wall are original to the Cabaret and date from its completion in 1950. The string lights at the ceiling were added in the 1960s.

Condition

The wall sconces appear to be in good condition. The triangular lights in the base of the wall are in poor condition. Many of the lenses are missing or damaged. The string lights appear to be relatively good condition.

Projection Room

Materials

The projection room has a concrete floor and desert masonry walls. The ceiling is the exposed underside of the concrete slab which is supported on steel beams. Spotlights are mounted on the steel beams. Wood shelving is located along the east and west walls and holds a collection of old films once viewed in the Cabaret. The door is flush wood with a clear finish. There are two small windows that open into the theater for the projector. The old film projector is still in the room, however, a new digital projector has been installed in the room.

Condition

The walls and floors appear to be in good condition. The underside of the concrete deck also appears to be in good condition. There is some surface corrosion on the steel beams. The wood shelves appear to be in good condition. There are a few scratches. The door is also in good condition.

Serving Kitchen

Materials

The kitchen has desert masonry walls and ceiling. The floor is painted concrete. There are built-in plywood base and wall cabinets and shelves. The countertop is red laminate and there is a stainless steel sink. A circular window on the west wall provides natural light and views to outside. Lighting is achieved with ceiling mounted track lighting and an additional surface mounted fixture. There is a metal pipe that leads to a vent on the roof.

Condition

The kitchen is in relatively good condition. The paint finish on the floor is significantly worn. There is also some water staining around the vent pipe. Wood cabinets and shelves are in good condition with only minor scratches and nicks.

Restrooms

Materials

The restrooms have painted concrete floors, desert masonry and textured plaster walls, underside of desert masonry slab and painted plywood at the ceilings, wood shelves, flush wood doors, and porcelain fixtures. The area outside the men's restroom has plywood wood shelves, mailboxes and cabinets. Lighting in the men's restroom includes a recessed fluorescent fixture with eggcrate diffuser and a square ceiling fixture with metal frame and frosted glass lense. Lighting in the women's restroom includes simple metal sockets with exposed bulbs on each side of the mirror.

Condition

The restrooms appear to be in good condition. Lighting levels in the women's restroom are low. The mailboxes and cabinets in the space outside the men's restroom are damaged. The cabinet doors are detached and in need of repair.



Figure 10-89 - Cabaret Location Plan

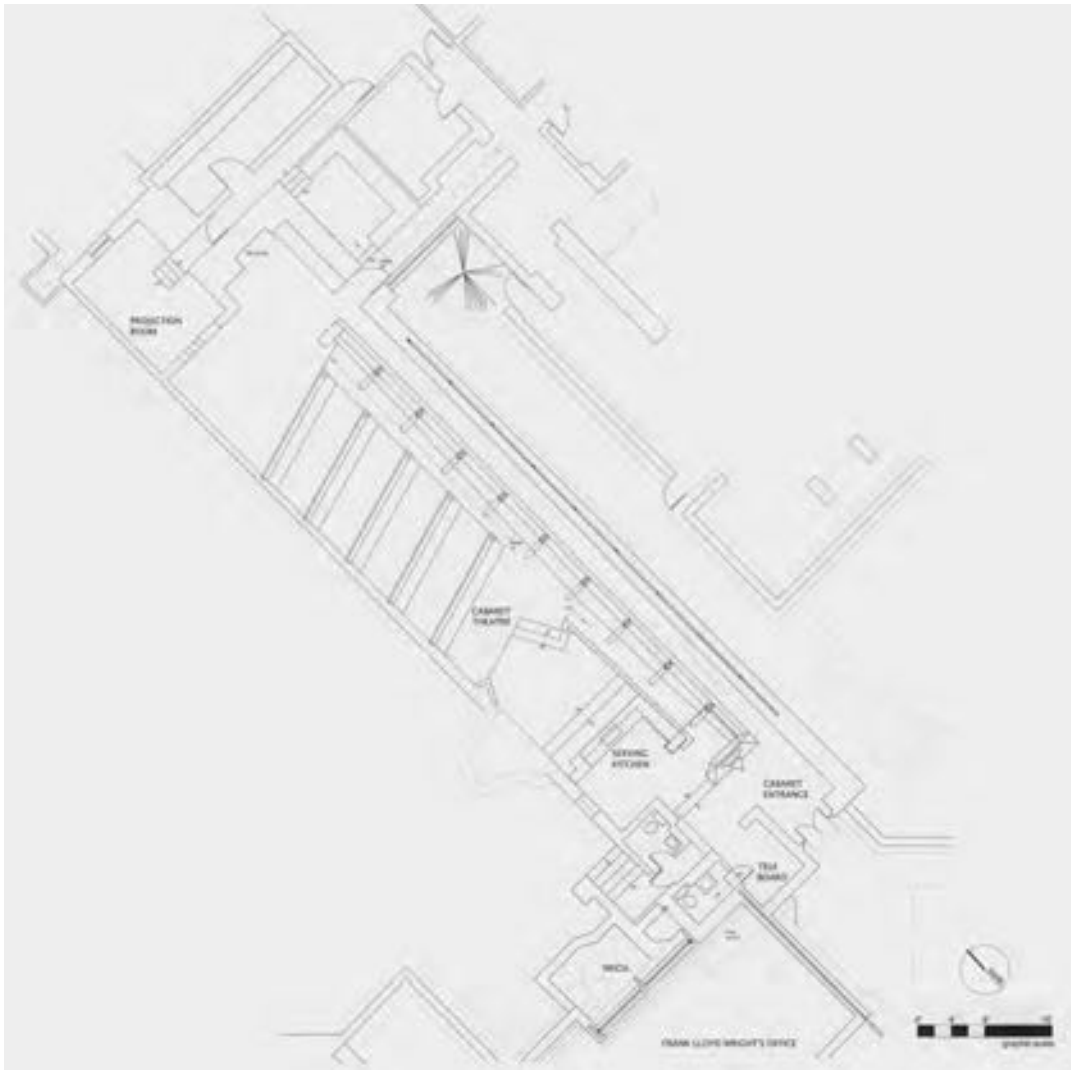


Figure 10-90 - Cabaret Floor Plan



Figure 10-91 - Looking north at Cabaret entrance, 2014 (Harboe Architects).

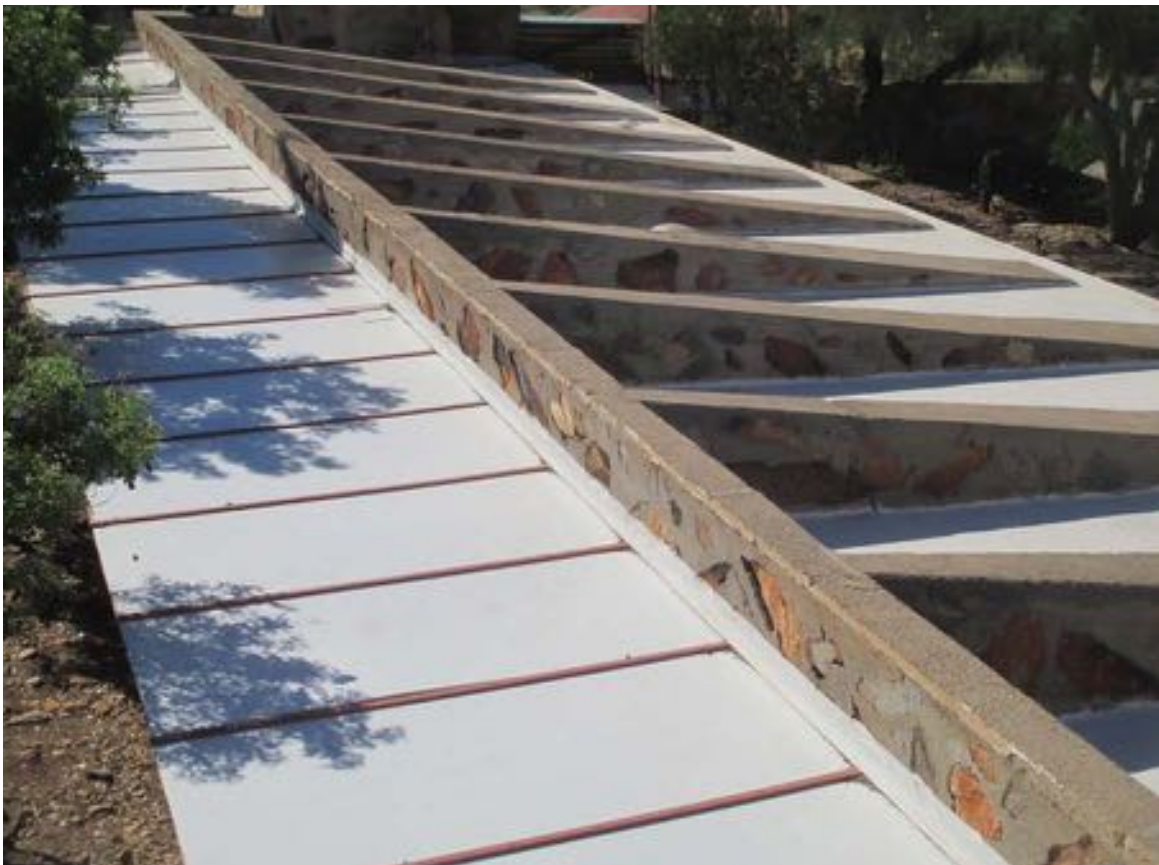


Figure 10-92 - Roof of Cabaret, 2014 (Harboe Architects).



Figure 10-93 - Entry hall of Cabaret looking north, 2014 (Harboe Architects).



Figure 10-94 - Cabaret corridor looking north, 2014 (Harboe Architects).



Figure 10-95 - Cabaret corridor looking south at entry doors, 2014 (Harboe Architects).



Figure 10-96 - Cabaret theater looking south, 2014 (Harboe Architects).



Figure 10-97 - Cabaret theater looking north, 2014 (Harboe Architects).



Figure 10-98 - Cabaret theater lights, 2014 (Harboe Architects).



Figure 10-99 - Cabaret serving kitchen, 2015 (Harboe Architects).



Figure 10-100 - Mailbox area outside of the men's restroom, 2015 (Harboe Architects).



Figure 10-101 - Men's restroom, 2015 (Harboe Architects).



Figure 10-102 - Cabaret projection room, 2015 (Harboe Architects).



Figure 10-103 - Cabaret projection room, 2015 (Harboe Architects).

DINING ROOM

Historic Significance

The Fellowship Dining Room was originally an open loggia used for weaving and outdoor eating. The space was enclosed in wood and glass around 1950 and then later expanded to the north in 1958. The Dining Room was significantly renovated in 1970 with the complete reconstruction of the guest deck above. At this point steel framing replaced the original wood framing. While it was significantly modified, the Dining Room is part of the main historic core at Taliesin West. Therefore, it has secondary significance.

Level of Significance

Secondary

Walls & Piers

Materials

The desert masonry walls and piers are original elements except for the pier at the middle western side of the dining room. The original pier was removed during the 1970 renovation. The current pier is a replica.

Condition

All desert masonry walls and piers in the dining room appear to be in good condition. The desert masonry walls in the annex office off of the dining room have been painted.

Flooring

Materials

The flooring in the dining room was originally concrete configured in panels that were separated by 2-1/2" mortar joints similar to that found in the studio. This floor was removed during the 1970 renovation. The current floor is concrete that is covered in carpet. The finish floor has been carpet since the 1970 renovation.

Condition

The carpet is in good condition. The carpet was not removed during the survey to assess the condition of the underlying concrete floor.

Ceiling

Materials

The ceiling in the dining room was originally wood beam framing with an exposed wood deck above. The wood decking was later covered after the room was enclosed. Historic photos show a smooth white surface that is either painted plaster or canvas. The wood beams and decking were removed during the 1970 renovation. The current ceiling framing is steel and dates from the 1970 renovation. Concrete was used to infill the space between the two flanges of the wide flange steel beams. The flat sections between the steel beams are white fabric panels held in place with painted wood trim at the edges. The ceiling in the annex office is foam with a layer of gypsum plaster on the exposed surface to look like stucco.

Condition

The steel framing is painted red and is in good condition. The fabric panels appear to be in good condition. There is one section on the west side of the dining room that has some water staining. The ceiling in the annex is in fair condition.

Framed Glass Enclosure

Materials

There is a glass enclosure with painted steel frame on the north and east side of the dining room. This

glass enclosure was first added in 1958 and was completely reconstructed in 1970. On the east side there are two sets of painted metal and glass double doors that lead to the breezeway. There is also a painted flush wood door on pivots next to the glass doors.

Condition

The steel frame and glazing is in fair condition. There is some corrosion at the steel base and at the bottom stops. Also, some of the edges of the sliding glass panels are chipped.

Lighting

Materials

The dining room has recessed ceiling lighting. The lighting consists of recessed light troughs with diagonal wood slot screens and fiber glass sheet lenses above the wood screens. Additionally, there are also square painted metal box lights with egg crate diffusers along the glass wall. The current lighting was added during the 1970 renovation of the dining room. Originally, when the dining room was an open loggia, there was no electric lighting.

Condition

The lighting is in fair condition. The diagonal wood slot screens suffer from water damage.

Roofing

Materials

While much of the dining room is under the guest deck, there is a section that protrudes out on the north side. This section has a built-up liquid applied membrane roof.

Condition

This roof is in good/fair condition. The membrane is in good condition; however, the area around the ceramic Chinese frieze leaks causing water staining on the fabric ceiling panels below. The roof drains are only 1" in diameter, which is inadequate during a rain storm in the Arizona desert and results in ponding on the roof.

Millwork

Materials

There are wood veneer cabinets along the northwest wall of dining room. These cabinets were added in the 1980s.

Condition

The cabinets are in fair condition. There are some scratches and delamination of veneer, especially on the base cabinets.



Figure 10-104 - Dining Room Location Plan

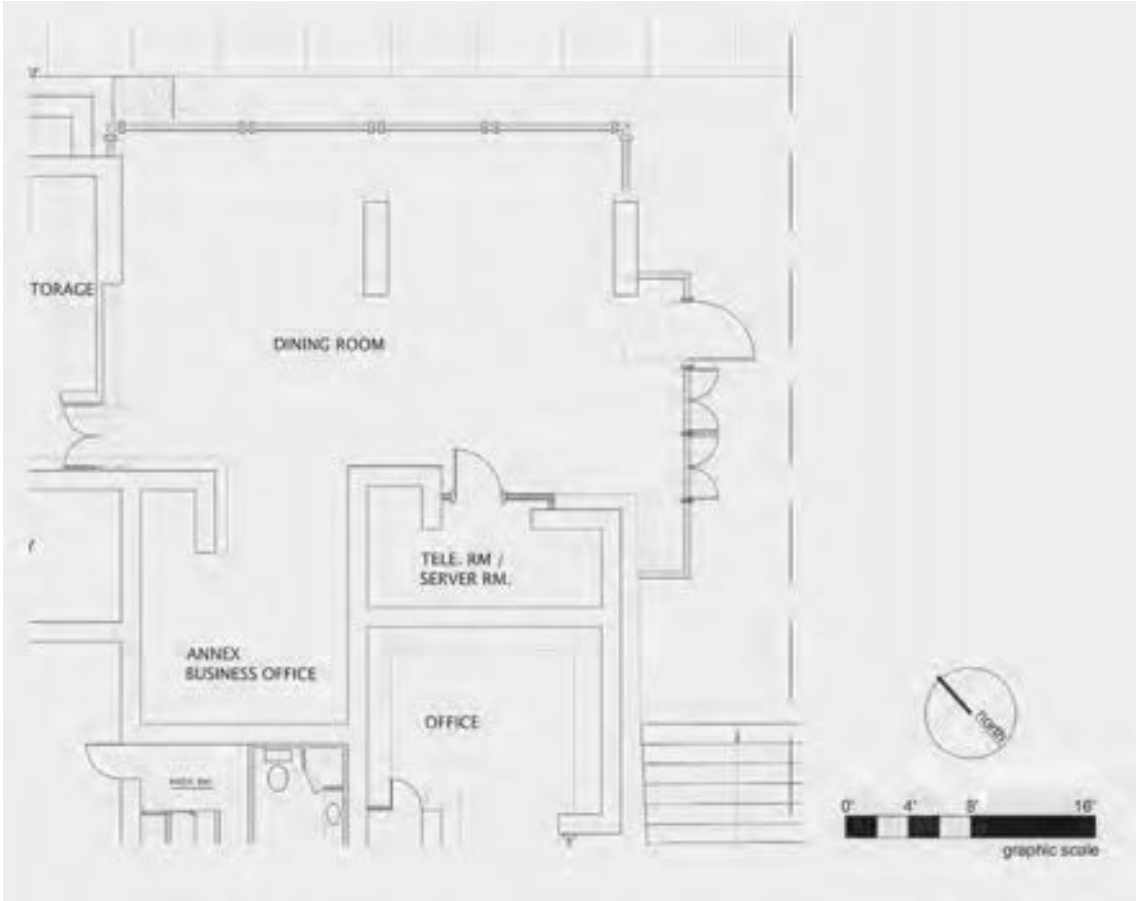


Figure 10-105 - Dining Room Floor Plan



Figure 10-106 - View of Dining Room from Kiva roof, 2014 (Harboe Architects).



Figure 10-107 - Exterior of Dining Room looking west, 2014 (Harboe Architects).



Figure 10-108 - Interior of Dining Room looking southeast, 2014 (Harboe Architects).



Figure 10-109 - Interior of Dining Room looking west, 2014 (Harboe Architects).



Figure 10-110 - Interior of Dining Room looking south at door, 2014 (Harboe Architects).



Figure 10-111 - Dining Room looking northwest at doors to kitchen, 2014 (Harboe Architects).

GUEST DECK

Historic Significance

The Guest Deck was completed in 1941 and was constructed on the roof of the kitchen and what was then the loggia (now the dining room). It was completed during the first period of construction (1938-45) at Taliesin West. Because the guest deck was entirely rebuilt in 1970, it retains no historic material from the period of significance. However, because of its location in the historic core of the camp, the Guest Deck has secondary significance.

Level of Significance

Secondary

Roof

Materials

The roof is a non-historic built-up membrane on a wood deck. The deck is supported with wood framing on a steel structure. The original roof deck was wood with a built up roof system.

Condition

The roof deck and membrane is damaged and leaking and in need of replacement. The soffit under the roof is also damaged and needs repairs.

Framing

Materials

The framing on the Guest Deck was originally wood when it was first constructed in 1941. The wood was replaced with steel framing in 1970.

Condition

The steel framing appears to be in good condition.

Decking

Materials

The decking is concrete with a waterproofing membrane on top. Originally, the decking was wood. The concrete decking was constructed in 1970.

Condition

The deck is starting to leak and needs new waterproofing.

Metal Parapet

Materials

The painted metal parapet around the perimeter of the Guest Deck were added during the 1970 reconstruction. The original Guest Deck had a parapet constructed of 1x12 redwood boards.

Condition

The metal parapet is in relatively good condition. There are areas where the paint is worn and faded.

Doors

Materials

The mirrored glass doors at the entrances to each guest room were added in the 1970 reconstruction. When first completed in 1941, the guest rooms were enclosed with canvas panels.

Condition

The doors appear to be in good condition.

Wood Shutters

Materials

The painted plywood shutters on the Guest Deck were first added in the 1950s. The shutters there now were installed in 2012 and closely match the historic shutters.

Condition

The painted plywood shutters appear to be in relatively good condition. Some of the shutters do not close properly and are out of alignment.

Walls

Materials

The interior walls of the Guest Deck are painted drywall. Originally, the walls were wood with canvas over them.

Condition

The walls are in fair condition and require some repair at damaged areas of drywall.

Ceiling

Materials

The ceilings of the guest rooms are painted drywall. Originally, the ceilings were exposed wood deck.

Condition

The ceilings are in fair condition and require some repair.

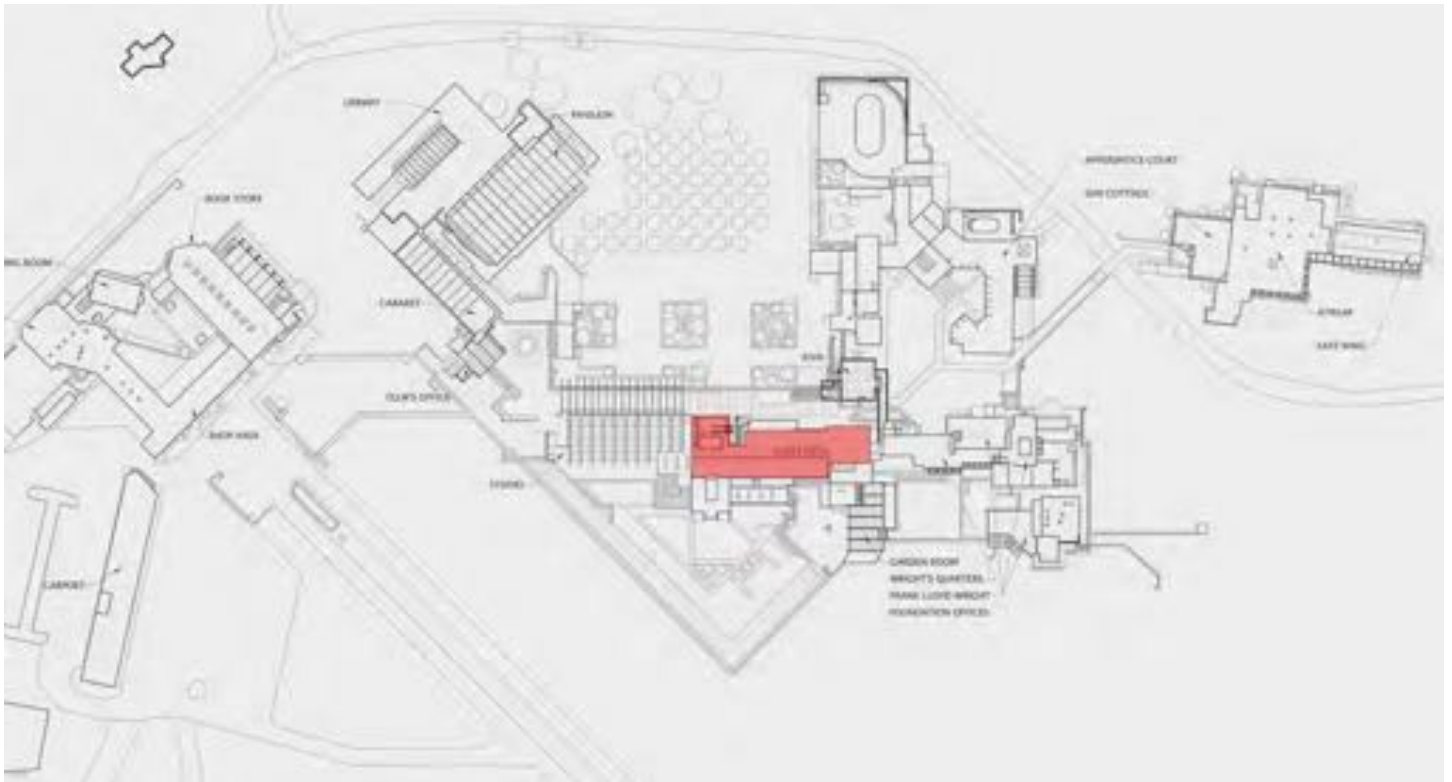


Figure 10-112 - Guest Deck Location Plan

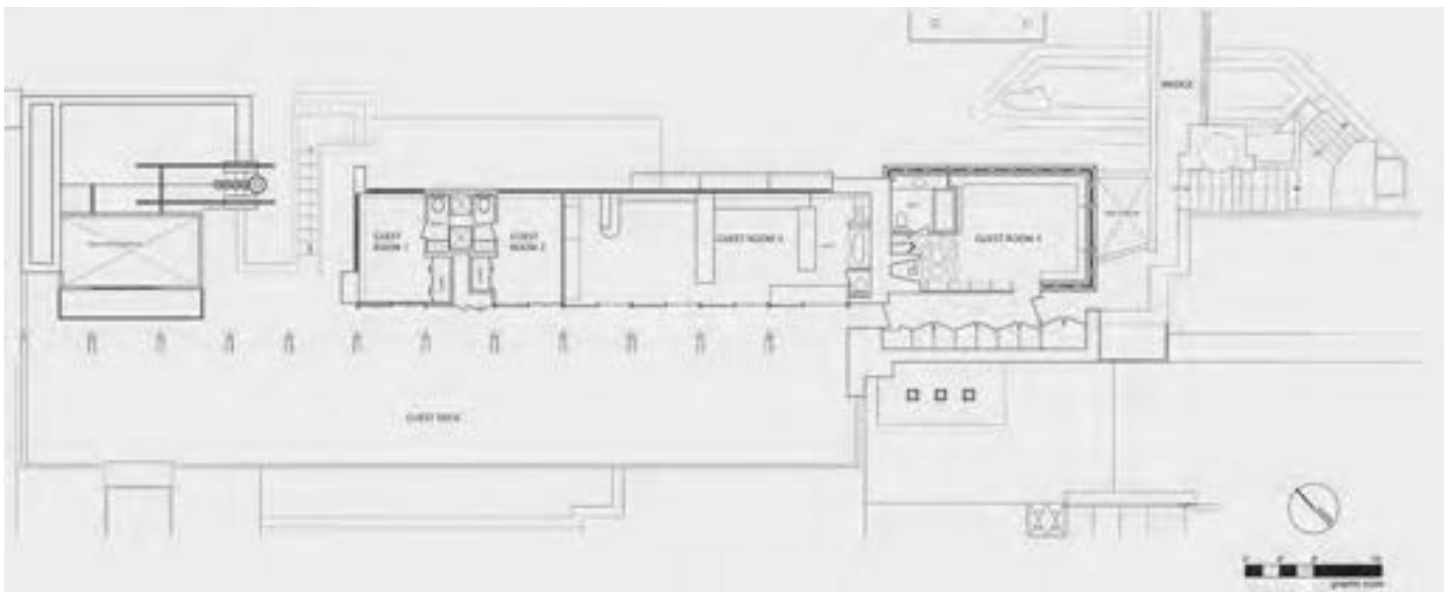


Figure 10-113 - Guest Deck Floor Plan



Figure 10-114 - Guest Deck looking west, 2014 (Harboe Architects).



Figure 10-115 - Guest Deck looking east, 2014 (Harboe Architects).



Figure 10-116 - Looking north at guest room with open wood flaps, 2014 (Harboe Architects).



Figure 10-117 - Looking north at guest room with closed wood flaps, 2014 (Harboe Architects).



Figure 10-118 - North side of guest rooms looking east, 2014 (Harboe Architects).



Figure 10-119 - Interior of typical guest room, 2014 (Harboe Architects).

APPRENTICE COURT

Historic Significance

The Apprentice Court was completed in 1941 as rooms for the senior apprentices. Since being completed it has undergone significant changes as each new apprentice has moved in and modified the interiors. The entire east side of the Apprentice Court was destroyed in a fire in 1967 and reconstructed. Because of the multiple changes, the Apprentice Court has secondary significance.

Level of Significance

Secondary (Exterior wall is Primary)

Walls

Materials

The walls in the Apprentice Court are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1941 and retain their material integrity. The desert masonry walls were the only original elements to survive the fire in 1967. There are some interior gypsum board partitions. Sections of the desert masonry walls in the old men's locker room are faced with painted plaster.

Condition

The desert masonry walls are in good condition. There is generally a light soiling on all desert masonry. Painted plaster walls in the old men's locker room are damaged with multiple cracks and portions of failing and crumbling plaster. The old men's locker room is currently not used.

Roof

Materials

The roof is a built-up membrane roof system on the east side and a combination of foam roofing system and built-up membrane system on concrete deck on the west side. Originally it was a built-up roof system of canvas and white lead. The roof deck is wood on the breezeway and west side of the Apprentice Court and is a concrete roof deck on the east half. The fascia at the eaves is wood on the Roy Apartment on the west side and it is metal on the Rattenbury Apartment and east half of the court. Portions of the Roy Apartment date from 1941.

Condition

The membrane roof is at the end of its usable life and needs to be replaced. The fascia at the eaves is in relatively good condition. There are a few select areas of damage to the wood fascia on the west side of the Apprentice Court. The entire fascia needs to be painted.

Glazing

Materials

Window openings in the Apprentice Court originally were enclosed with operable canvas panels. Glass began to be added in the late 1940s. Current openings are enclosed with glass, with only fiberglass panels in a few locations on the east apartments.

Condition

The glazing appears to be in good condition.

Doors

Materials

Door openings in the Apprentice Court originally were enclosed with operable canvas panels. Wood doors began to be added in the late 1940s. The current doors are flush wood and metal painted red.

Condition

The doors appear to be in good condition. There are some minor scratches and some wear on the bottom of the doors.

Flooring

Materials

The flooring in the Apprentice Court apartments and old men's locker room is a concrete slab on grade. Individual apartments have been updated with carpet on the floors. The women's locker room has tile flooring.

Condition

In many of the apartments the carpet is old and worn and in need of replacement. The tile flooring in the women's locker room is in good condition. This tile floor was installed during the most recent remodel of the locker room in the mid-2000s. The concrete floor in the old men's locker room is in poor condition.

Ceiling

Materials

The ceilings in the Apprentice Court are primarily painted gypsum board in the Rattenbury and Roy Apartments (west half) and painted fiberboard (east half). Originally the ceilings were painted plaster with exposed wood beams. The wood structure in Arnold Roy's apartment is believed to date from 1941.

Condition

The ceilings in select apartments appear to be in good condition. Occupied apartments were not surveyed. The ceiling in the women's locker room is in good condition. The ceiling in the old men's locker room was removed at the time of the survey, exposing the wood structure and wood roof deck above.

Fellowship Pool

Materials

The fellowship pool is constructed of poured in place concrete. The inside surface of the pool is painted light blue. There is a precast coping around the edge of the pool. Outside of the coping is a ring of concrete deck with a textured mortar topping. The main outer pool deck is textured concrete. The pool deck is surrounded with a desert masonry wall that varies in height from 18 inches to 5 feet tall. At the base of the wall is a cast concrete bench. On top of the wall is a painted steel picket fence with gates on the east and west sides of the pool area. Lighting is set into the desert masonry wall.

Condition

The painted concrete on the inside face of the pool is in good condition. The textured mortar topping on the inner pool deck is in poor condition. The topping is delaminating and cracking in multiple locations. There are also many open mortar joints and some areas of previous non-matching patches and repairs. The outer pool deck is in fair condition. There are some cracks and non-matching repairs. The cast concrete bench is in fair condition with areas of spalling, erosion, and cracking. The steel picket fence is in good condition. Lighting is in fair condition. Many of the lights are missing lenses.

Trunk Room

Materials

The exterior walls are desert masonry. Interior walls are painted plaster on the interior side of the desert masonry. The roof is covered with a liquid applied membrane. This is on top of a plywood deck with wood framing that is exposed on the interior. The entry has a dimensional plywood door and wall infill.

Condition

The trunk room is in good condition.



Figure 10-120 - Apprentice Court Location Plan

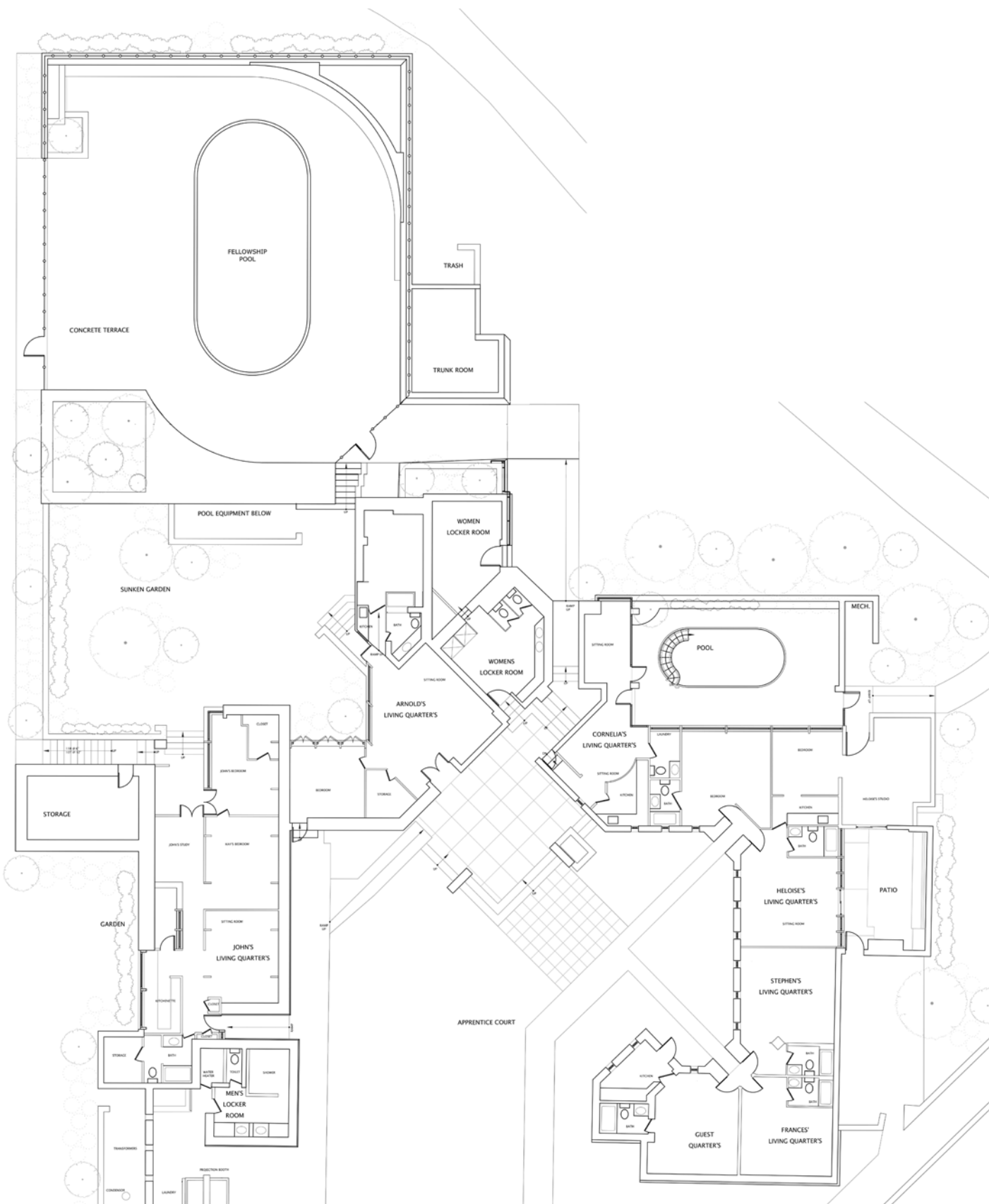


Figure 10-121 - Apprentice Court Floor Plan



Figure 10-122 - Apprentice Court looking northeast, 2014 (Harboe Architects).



Figure 10-123 - North side of the Apprentice Court, 2014 (Harboe Architects).



Figure 10-124 - Apprentice Court apartments roof, 2014 (Harboe Architects).



Figure 10-125 - Damaged underside of roof decking at Apprentice Court, 2015 (Harboe Architects).

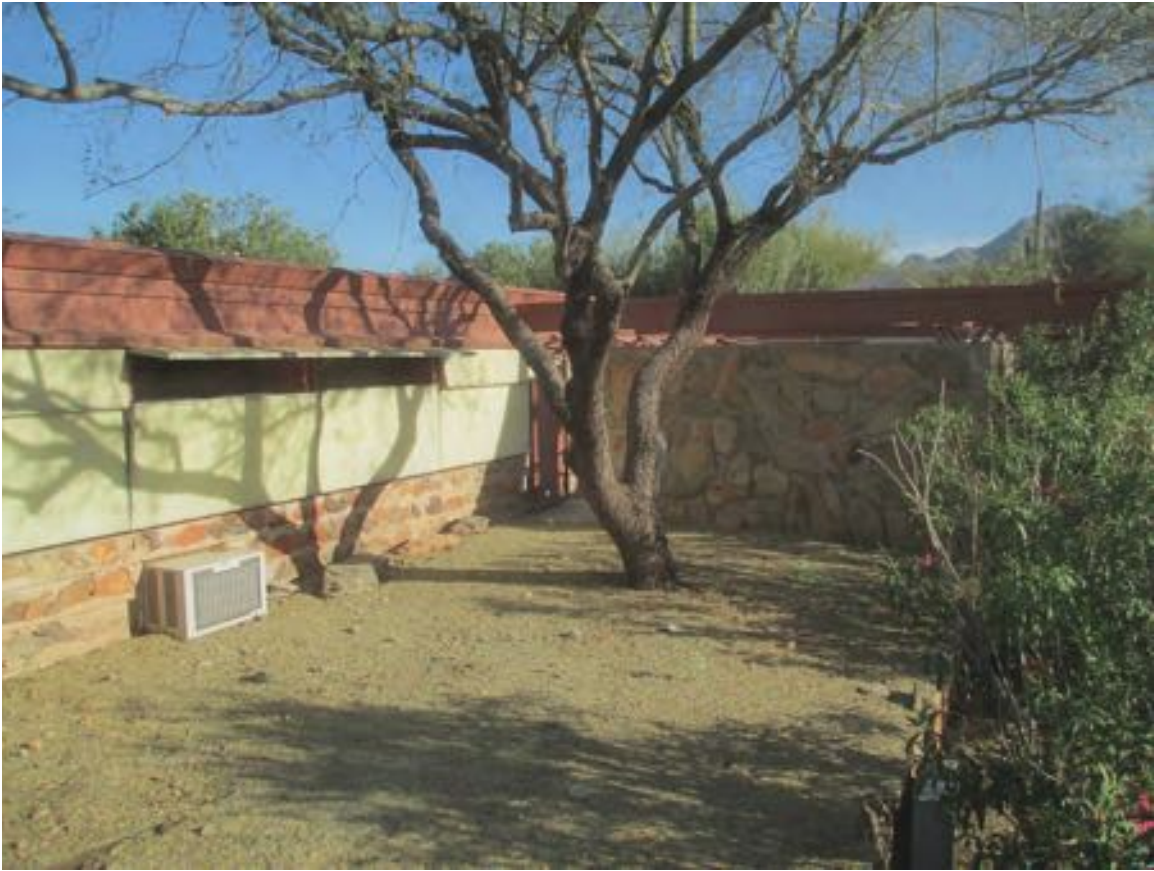


Figure 10-126 - South side of Apprentice Court apartments, 2014 (Harboe Architects).



Figure 10-127 - Sink area in Old Men's Locker Room, 2015 (Harboe Architects).



Figure 10-128 - Shower area in Old Men's Locker Room, 2015 (Harboe Architects).



Figure 10-129 - Damaged wall in shower area in Old Men's Locker Room, 2015 (Harboe Architects).



Figure 10-130 - Fellowship Pool, 2015 (Harboe Architects).



Figure 10-131 - Concrete bench around perimeter of Fellowship Pool, 2015 (Harboe Architects).



Figure 10-132 - Delaminated mortar topping of inner pool deck, 2015 (Harboe Architects).



Figure 10-133 - Interior of Trunk Room, 2015 (Harboe Architects).



Figure 10-134 - Interior of Trunk Room, 2015 (Harboe Architects).

SHOPS

Historic Significance

The Shops were originally constructed in 1939. Little has changed in the shops since it was constructed. Much of it is still open air with no glazing. While the shops still have a high degree of historic integrity, they are not located in the historic core and therefore have secondary significance.

Level of Significance

Secondary

Walls

Materials

The walls in the Shops are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1939 and retain their material integrity.

Condition

The desert masonry walls are in good condition. There is generally a light soiling on all desert masonry.

Roof

Materials

The roof is a membrane roof system. Originally it was a built-up roof system of hot mopped asphalt. The roof deck was originally tongue and groove wood decking. This decking still exists over the tool shop. Other areas have been replaced with a plywood decking. There is wood fascia around the eaves of the flat roofs.

Condition

The membrane roof is at the end of its usable life and needs to be replaced. The original tongue and groove wood decking appears to be in fair condition. There are areas of damage to the wood deck. The fascia at the eaves is in fair condition. There are select areas of damaged wood fascia that needs to be replaced. The entire fascia needs to be painted.

Glazing

Materials

There are select areas of glazing at the offices. This glazing is not from the period of significance.

Condition

Glazing appears to be in good condition.

Doors

Materials

The doors in the Shops are flush solid core wood doors painted red. These doors are not original.

Condition

The doors are in fair condition. There is damage to the wood veneer on many of the doors, especially at the bottoms of the doors.

Paving/Flooring

Materials

The paving in the open court and in the shops is concrete. The flooring in the offices is painted concrete.

Condition

The paving is in fair condition. There are a number of cracks and areas of previous patches. The concrete flooring in the offices is in fair condition. The paint is worn and faded.

Lighting

Materials

Lighting in the shops is achieved with a combination of fluorescent fixtures and jelly jar fixtures mounted to the underside of the exposed roof deck between the beams. Originally, the lighting in the shops was simply a series of sockets with incandescent bulbs.

Condition

The fluorescent light fixtures are past their useful life and should be replaced. The jelly jar fixtures are in good condition and replaced socket fixtures in 2014 because of safety concerns.

Light Tower

Materials

The Light Tower was constructed between 1939 and 1940. The metal light post and spot lights on top was not added until the early 1950s. The fountain on the east side of the Light Tower was constructed in 1955. The Light Tower retains much of its historic material and integrity.

Condition

The desert masonry is in good condition. The attachments at the gate are damaged and need to be repaired. The paint finish on the metal gate and lamppost is worn and should be repainted. The light post and lights are in good condition. The workings of the lights were replaced with LED fixtures in 2013. The original metal reflectors were retained.

Root Cellar

Materials

The root cellar is constructed of desert masonry walls and a concrete roof slab and has a painted metal door and frame.

Condition

There is some cracking in the concrete roof slab that requires further analysis.

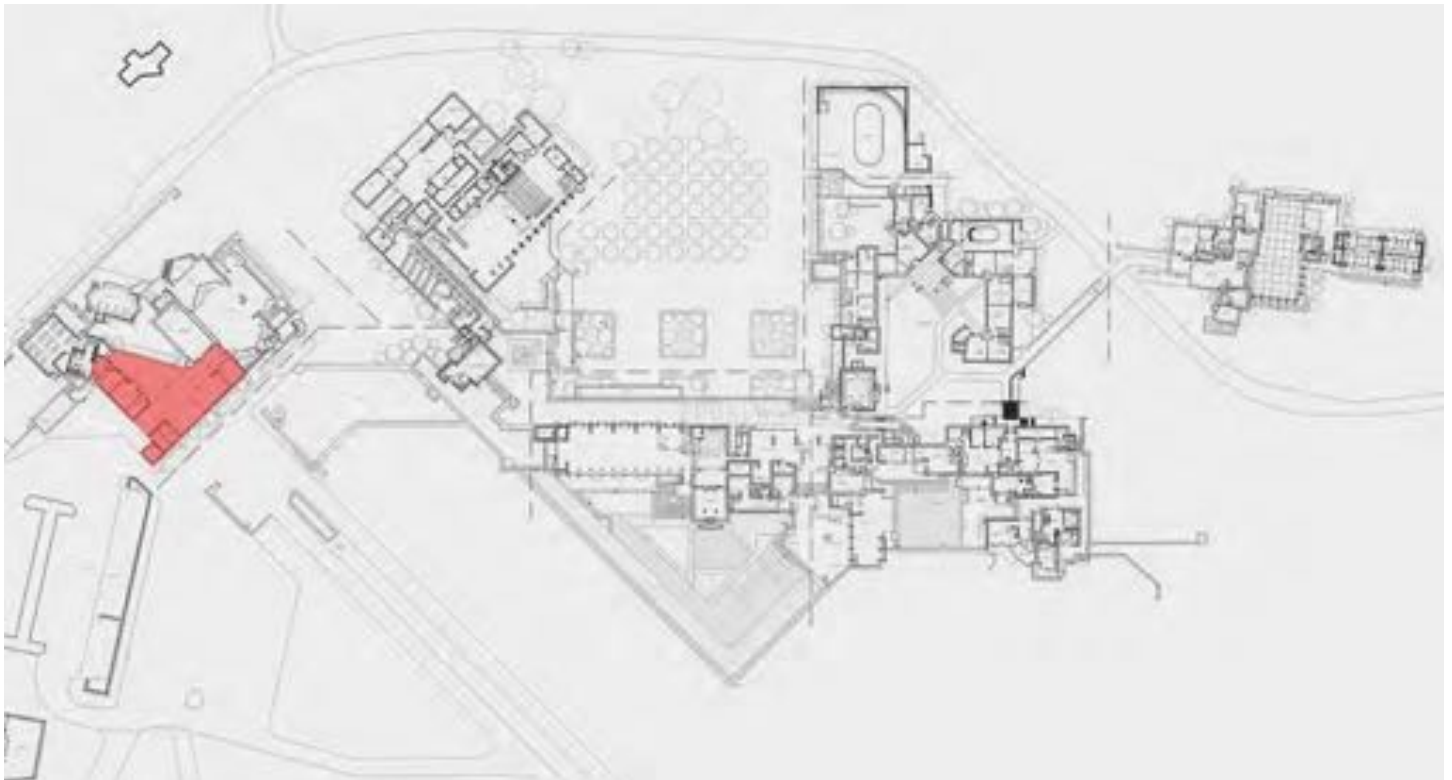


Figure 10-135 - Shops Location Plan

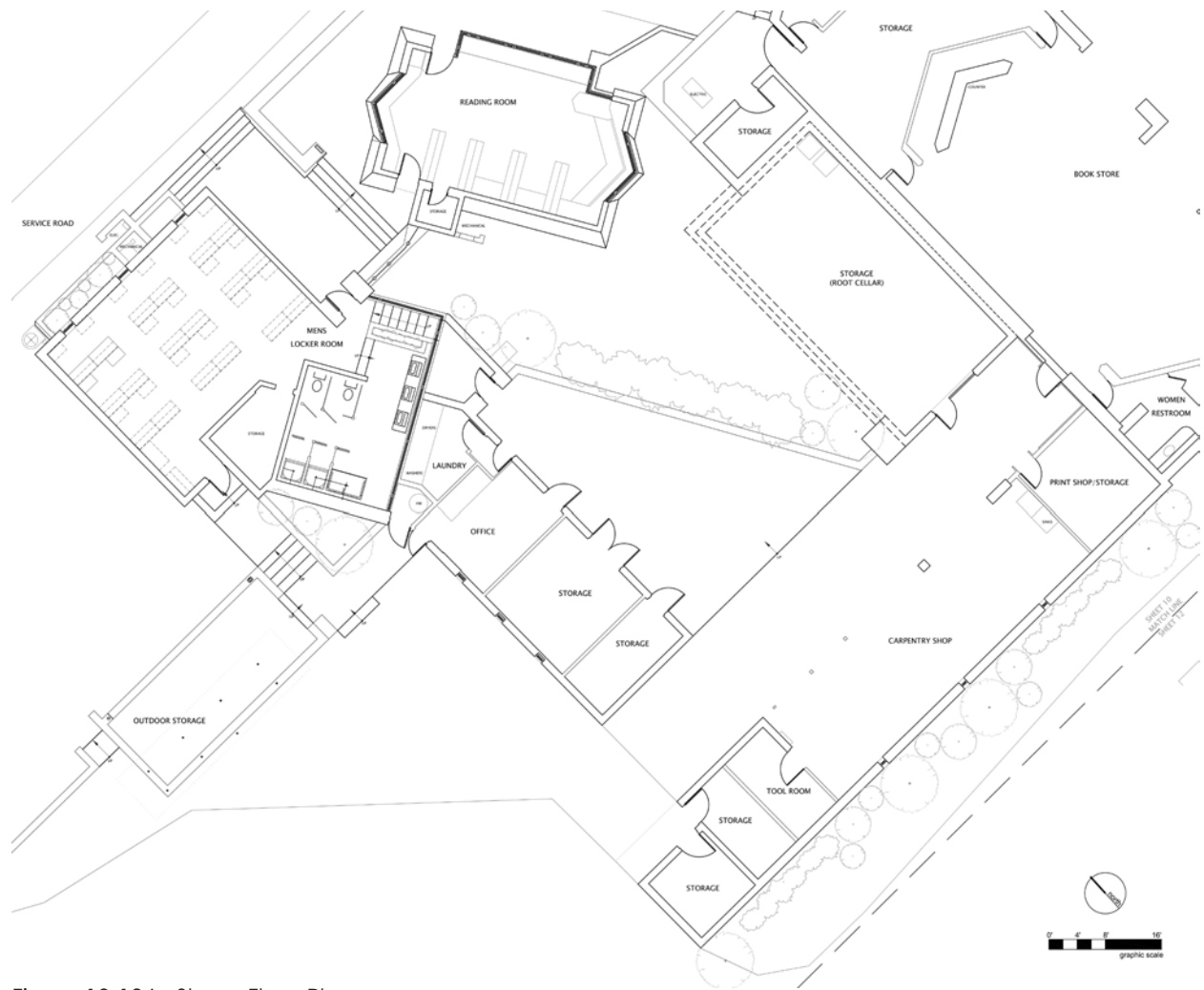


Figure 10-136 - Shops Floor Plan



Figure 10-137 - View of Shops and Light Tower looking north, 2014 (Harboe Architects).



Figure 10-138 - View of Shops looking south, 2014 (Harboe Architects).



Figure 10-139 - View of Shops roof, 2014 (Harboe Architects).



Figure 10-140 - View of Shops showing wood fascia at eaves, 2014 (Harboe Architects).



Figure 10-141 - Interior of shops, 2014 (Harboe Architects).



Figure 10-142 - Outside the Root Cellar, 2015 (Harboe Architects).



Figure 10-143 - Inside the Root Cellar, 2015 (Harboe Architects).

MEN'S LOCKER ROOM

Historic Significance

The Men's Locker Room was constructed in 1952 near the shops to replace the much smaller old men's locker room in the Apprentice Court. The locker room was renovated and added onto in 1957. Since that time the locker room has been renovated multiple times. While the exterior walls remain intact, the interior has been significantly altered over the years. The Men's Locker Room has secondary significance.

Level of Significance

Secondary

Walls

Materials

The walls in the Men's Locker Room are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1952 and retain their material integrity. The interior partitions are painted gypsum board walls. There is a textured plaster wall at the west end of the sink area with a small section of ceramic tile at the base of wall.

Condition

The desert masonry, plaster and gypsum board walls are all in good condition

Roof

Materials

The roof is a liquid applied built-up membrane roof system and is not original.

Condition

The membrane roof was installed in 2011 and is in good condition.

Soffit

Materials

The soffit under the roof overhang is gypsum board with a coating of painted plaster.

Condition

The soffit on the north side of the Men's Locker Room was unfinished at the time of the survey. The gypsum board was installed but was missing the skim coat of plaster.

Doors

Materials

The doors in the Men's Locker Room are flush solid core wood doors painted red with painted metal frames. These doors are not believed to be original.

Condition

The doors are in good condition.

Windows

Materials

There are wood framed clear glass windows above the sinks along the southeast wall of the Men's Locker Room. There are also windows located on the north wall.

Condition

The windows are in good condition.

Skylights

Materials

There are metal framed clear glass skylights in both the bathroom area and locker area of the Men's Locker Room.

Condition

The skylights are in good condition.

Flooring

Materials

The floors in the bathroom and entry hall are painted concrete. Floors in the locker room and storage area are red quarry tile.

Condition

The floors are generally in good condition. There is some water staining and worn paint finish in the bathroom area, especially near the showers.

Showers, Sinks & Toilets

Materials

The bathroom facilities were remodeled in 2011. The shower stalls are white fiberglass; sinks are stainless steel with three small circular mirrors mounted above sinks. The toilets and urinal are white porcelain.

Condition

The bathroom facilities are in good condition.

Lockers

Materials

The lockers/storage shelves are constructed of painted plywood on wood frames and set up to divide the locker room into rows with aisles in between.

Condition

The lockers are in fair condition. Some lockers have broken shelves and there is some delamination of the plywood at the base of the lockers.

Lighting

Materials

The light fixtures in the Men's Locker Room are recessed cans.

Condition

The lights are in good condition.

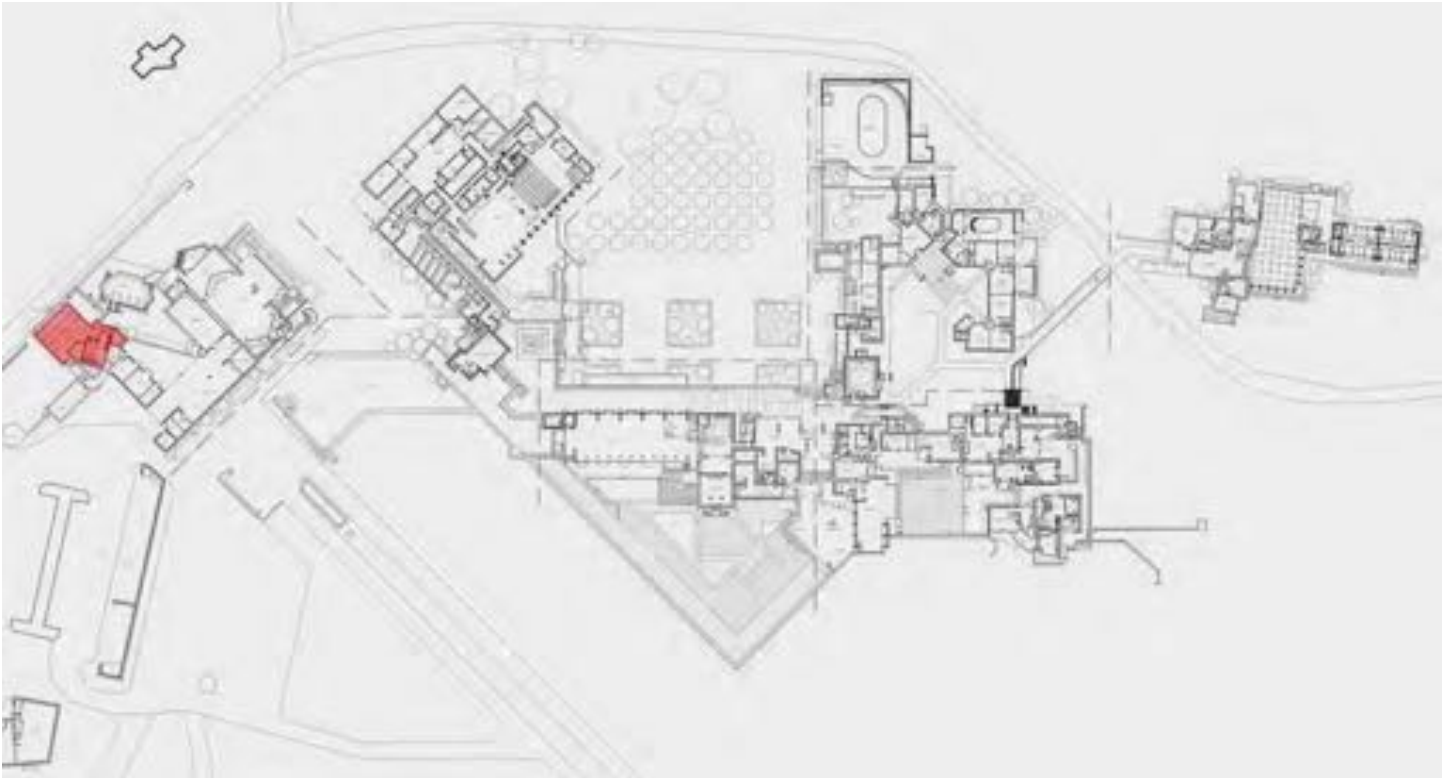


Figure 10-144 - Men's Locker Room Location Plan

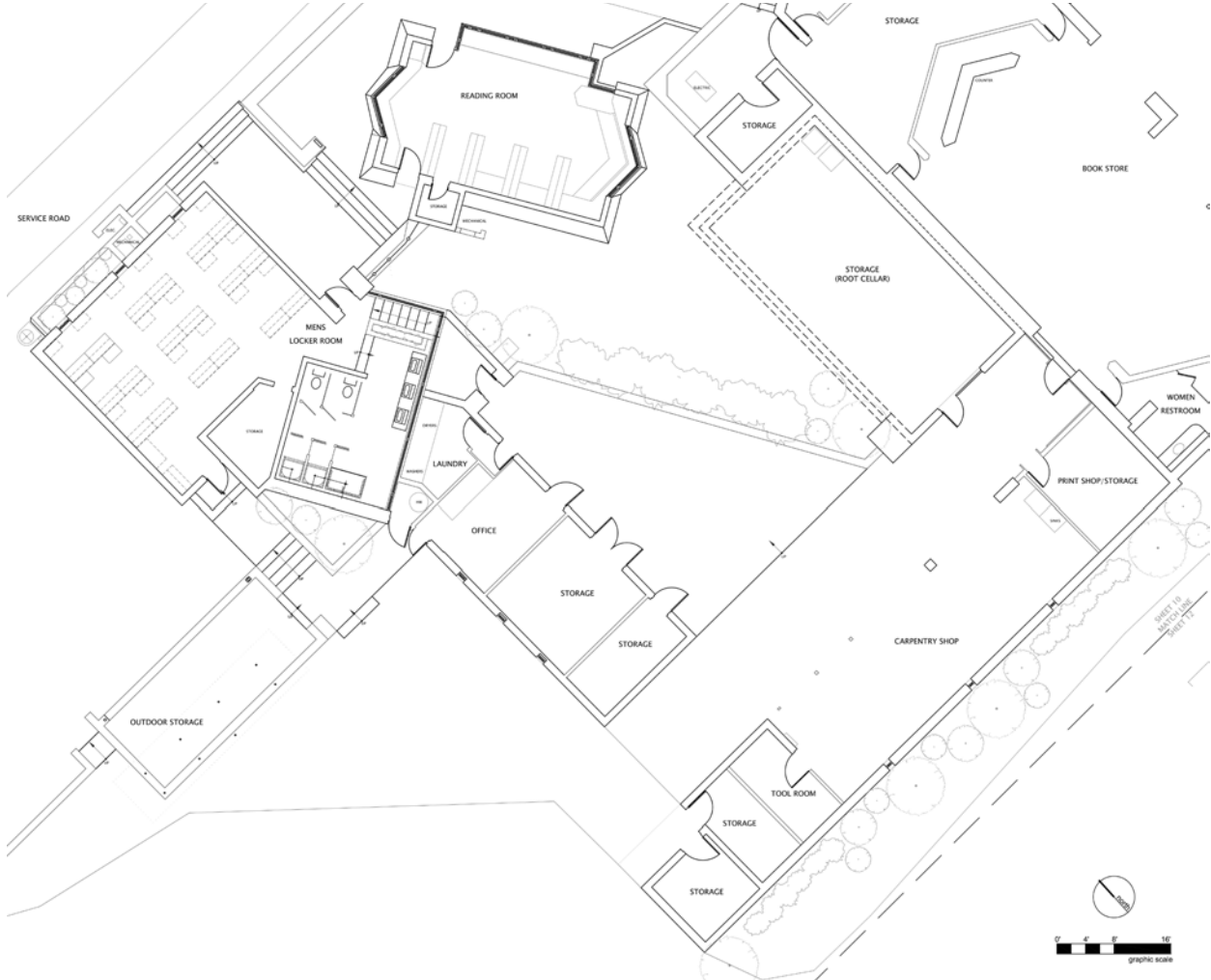


Figure 10-145 - Men's Locker Room Floor Plan



Figure 10-146 - North side of Men's Locker Room, 2015 (Harboe Architects).



Figure 10-147 - Soffit on northeast side of Men's Locker Room, 2015 (Harboe Architects).



Figure 10-148 - Sink area inside Men's Locker Room, 2015 (Harboe Architects).



Figure 10-149 - Windows above sinks inside Men's Locker Room, 2015 (Harboe Architects).



Figure 10-150 - Shower and toilet stalls inside Men's Locker Room, 2015 (Harboe Architects).



Figure 10-151 - Stairs from entry hall into Men's Locker Room, 2015 (Harboe Architects).



Figure 10-152 - Locker area inside Men's Locker Room, 2015 (Harboe Architects).



Figure 10-153 - Locker area inside Men's Locker Room, 2015 (Harboe Architects).

READING ROOM

Historic Significance

The Reading Room was constructed in the 1980s, after the period of significance, and therefore has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. Interior walls are gypsum board with a coating of painted textured plaster.

Condition

The desert masonry walls are in good condition. There is generally a light soiling on all desert masonry. Plaster walls are in good condition.

Roof

Materials

The roof is a liquid applied membrane roof system.

Condition

The membrane roof is near the end of its usable life and needs to be replaced.

Soffit

Materials

The soffit under the roof overhang is gypsum board with a coating of painted textured plaster.

Condition

The soffit on the north side of the Reading Room was unfinished at the time of the survey, exposing the wood framing and underside of the plywood deck. The soffit on the south and east sides of the building are in good condition.

Glazing

Materials

The glazing is clear glass set in metal frames. The windows at the prows are sliders and the windows along the northeast wall are a combination of fixed and casement windows. The interior window frames are wood with a clear coat finish.

Condition

The glazing is in good condition.

Doors

Materials

The doors in the Reading Room are custom tube steel frames with plywood and glass panels. The doors are painted red.

Condition

The doors are in good condition.

Flooring

Materials

The floor in the Reading Room is painted concrete.

Condition

The concrete floor is in good condition with only minor scuffs and areas of wear.

Ceiling

Materials

The ceiling over the center of the room is painted exposed metal deck. The perimeter soffits are gypsum board with a coating of painted textured plaster.

Condition

The metal deck is in good condition. The plaster soffits are in fair condition with some water staining.

Millwork

Materials

There is wood trim around the edge of the interior soffit, built-in cabinets, desk, and benches, as well as freestanding plywood bookshelves. The wood millwork has a clear, resinous finish. The benches have vinyl upholstery seat cushions.

Condition

The millwork is in relatively good condition. There are some areas - especially near the floor - where the finish on the wood shelves and benches is worn. The vinyl seats are in good condition except for one small tear.

Lighting

Materials

There are two types of lighting in the Reading Room. At the center, suspended from the metal deck, are pendant lights with porcelain enamel shades. At the perimeter soffits are recessed lights with wood trim and acrylic lenses.

Condition

The pendant lights are in good condition. The recessed ceiling lights are in fair condition. Some are missing lenses and some wood frames are detaching from the ceiling.



Figure 10-154 - Reading Room Location Plan

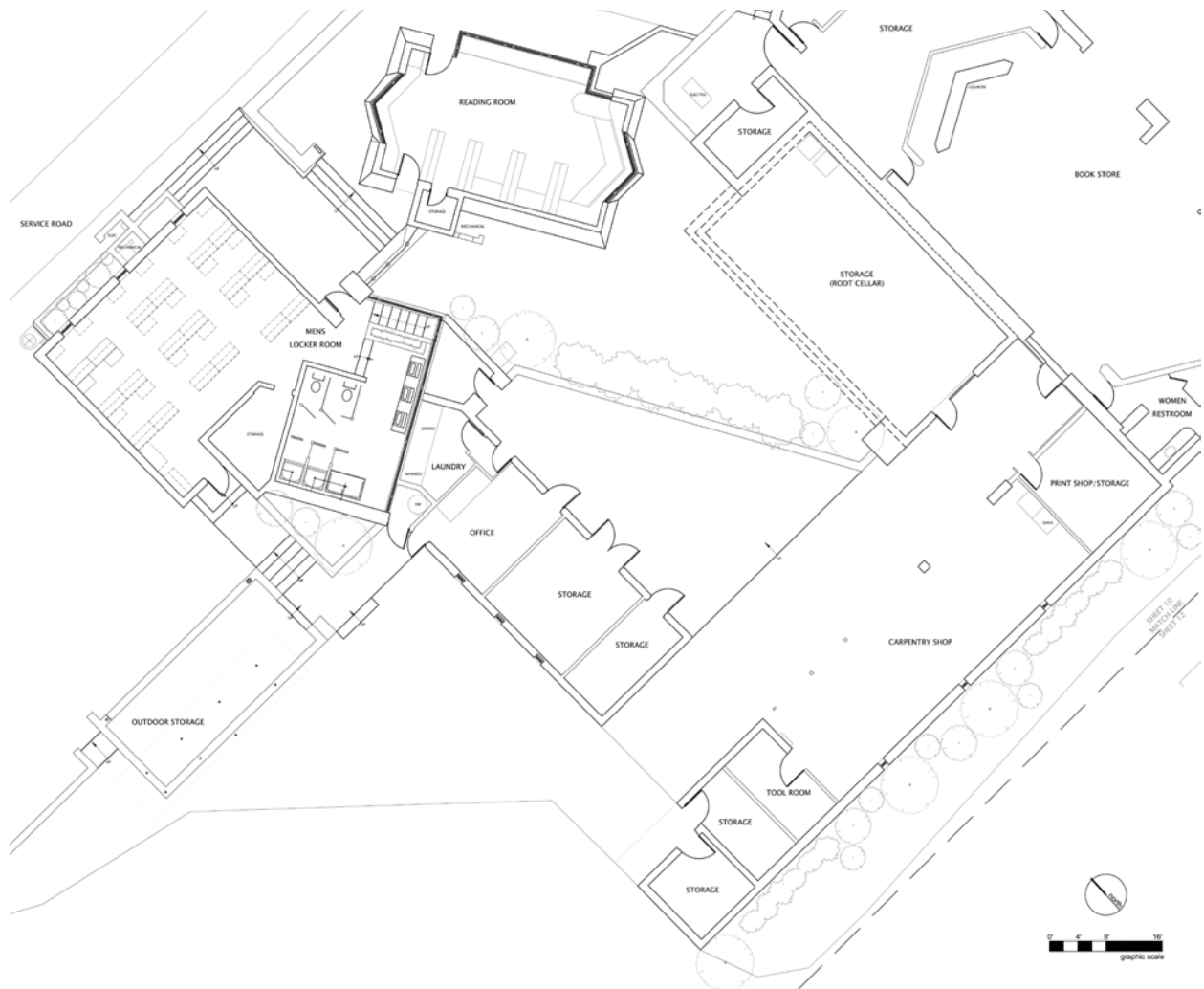


Figure 10-155 - Reading Room Floor Plan



Figure 10-156 - Reading Room exterior, 2014 (Harboe Architects).



Figure 10-157 - Reading Room exterior, 2015 (Harboe Architects).



Figure 10-158 - Reading Room exterior, 2015 (Harboe Architects).



Figure 10-159 - Soffit on north side with exposed wood structure and deck, 2015 (Harboe Architects).



Figure 10-160 - Interior of Reading Room looking southeast, 2015 (Harboe Architects).



Figure 10-161 - Interior of Reading Room looking northwest, 2015 (Harboe Architects).



Figure 10-162 - Reading Room bookshelves, 2015 (Harboe Architects).



Figure 10-163 - Built-in bench inside Reading Room, 2015 (Harboe Architects).

SUN COTTAGE

Historic Significance

The Sun Cottage was originally designed in 1938 as a temporary shelter for Frank Lloyd Wright, Olgivanna Lloyd Wright, and their daughter, Iovanna. It was originally called the Sun Trap. The original structure was comprised of three wood and canvas "sleeping boxes" that contained a bed and small closet. These compartments surrounded an open court (which was later covered over with a roof). The building was largely demolished (except the desert masonry fireplace) and a new structure was constructed on the site in 1948. The Sun Cottage was significantly rebuilt again in 1960 using steel framing and further remodeled in 1969. While the Sun Cottage (Sun Trap) was one of earliest structures at Taliesin West, it has been significantly renovated over the years and retains little original material. The Sun Cottage consists of the Guest Apartment, Eve's Apartment, and Iovanna's Apartment.

Level of Significance

Tertiary

Walls & Fireplace

Materials

The walls in the Sun Cottage are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the 1948 construction of the Sun Cottage. The desert masonry fireplace dates from the original construction of the Sun Trap in 1938.

Condition

The desert masonry walls as well as the fireplace are in good condition. There is generally a light soiling on all desert masonry.

Roof

Materials

The roof of the Sun Cottage varies. Some sections of the roof are comprised of a built-up liquid applied membrane roof system while others are foam roofing. This roof surface is not original. The roof decking is lightweight concrete on tongue and groove wood deck. It is supported on a steel frame structure. Originally, all of the roof framing on the Sun Cottage was wood. During the 1960 renovation, the wood structure was replaced with steel framing. There is painted metal fascia around the roof eaves.

Condition

The built-up membrane and foam roof are past their useful lives and should be replaced. There are also areas of the roof deck that are damaged and/or leaking and need to be replaced. There is some water staining on the ceiling in the Guest Apartment.

Glazing

Materials

The Sun Cottage originally had no glass. All openings were covered with canvas panels. Eventually glass was introduced at certain locations to allow for views out into the desert and so that more natural light could enter the space. The slanted panels above the windows were originally canvas. Now these panels are fiberglass. There is also a glass clerestory in the living room and bedroom of the Sun Cottage (Iovanna's apartment).

Condition

The glazing is in relatively good condition. The fiberglass panels of the Sun Cottage living room have been painted over.

Skylights

Materials

The skylights were added to the Sun Cottage in the 1960 renovation.

Condition

The skylights are leaking and need to be replaced.

Louvers

Materials

The wood louvers on the rooftop mechanical screen were constructed when the rooftop mechanical equipment was installed.

Condition

The wood louvers are damaged and need to be repaired and/or replaced.

Flooring

Materials

The current flooring in the Sun Cottage is painted concrete and is not original. Some areas have carpet, such as in lovanna and Eve's apartments. Originally the flooring was all unpainted concrete, however, the painted floor likely dates from the period of significance.

Condition

The flooring appears to be in fair condition. The carpet is worn and requires replacement. The condition of the concrete floor under the carpet is unknown since it was not able to be surveyed.

Interior Walls

Materials

The walls in the Sun Cottage are painted gypsum board. The walls are not original and likely date from the renovations in the 1960s.

Condition

There are multiple locations that require drywall repairs.

Interior Millwork

Materials

The millwork in the Sun Cottage includes all built-in wood cabinetry, doors, paneling and trim. The current millwork is not original and likely dates from the renovations in the 1960s.

Condition

The millwork finishes are worn and need to be refinished.

Bathrooms

Materials

The bathrooms in lovanna's and Eve's apartments have tile flooring and fixtures dating from the 1970s. The bathrooms in the Guest Apartment were upgraded in 2014 and include new fixtures and finishes.

Condition

The tile in lovanna's and Eve's apartments needs to be replaced.

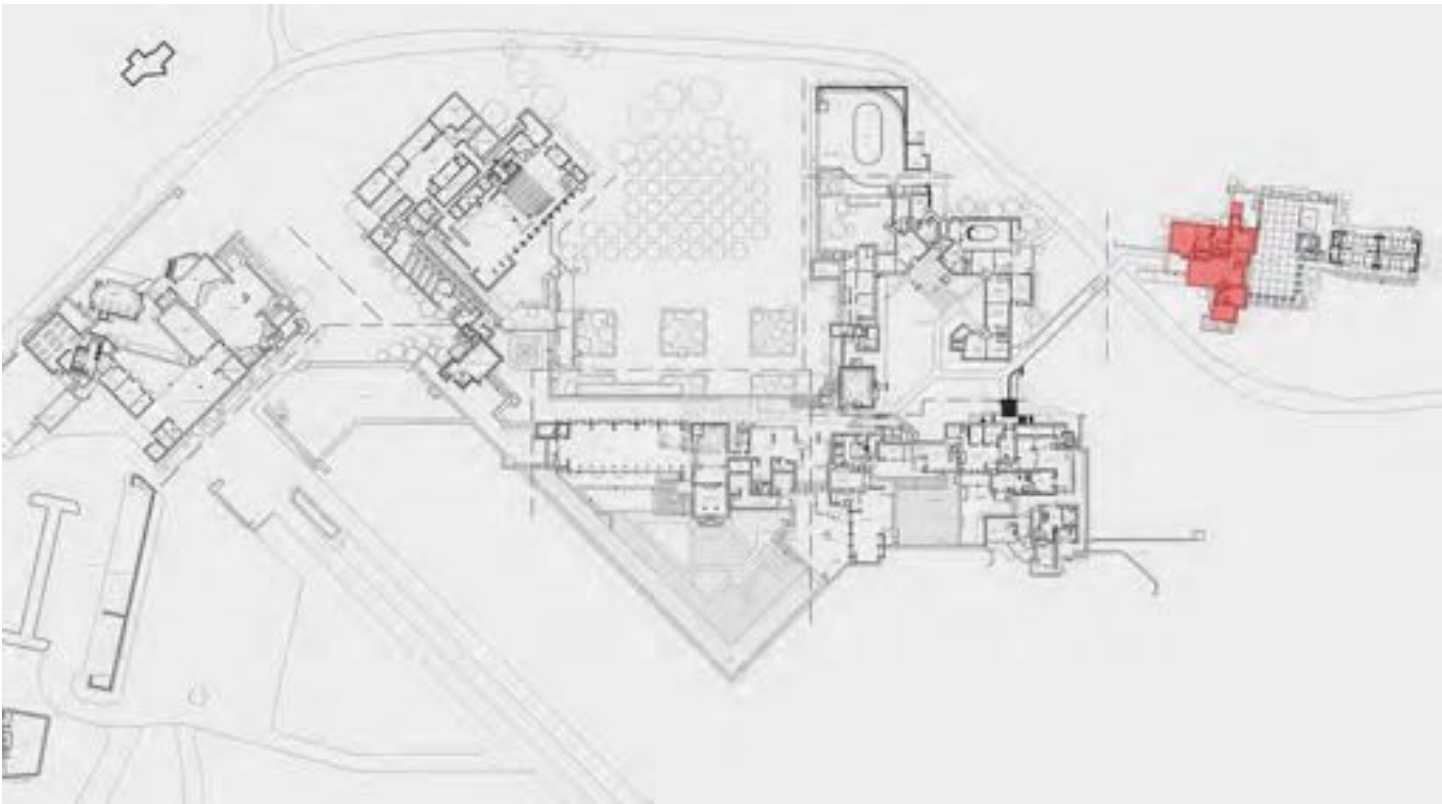


Figure 10-164 - Sun Cottage Location Plan

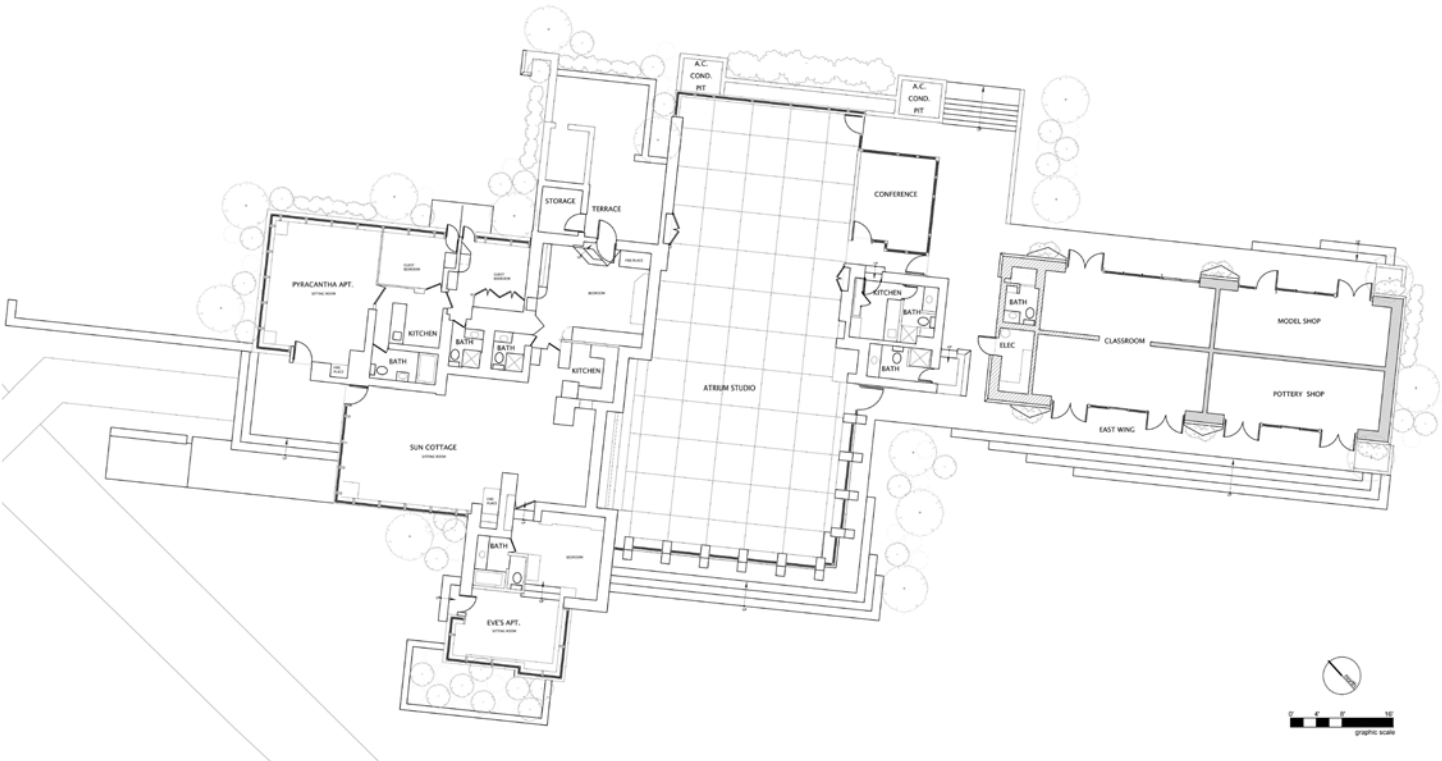


Figure 10-165 - Sun Cottage Floor Plan



Figure 10-166 - Sun Cottage, 2014 (Harboe Architects).



Figure 10-167 - Looking northeast at Sun Cottage, 2014 (Harboe Architects).



Figure 10-168 - Looking north at Sun Cottage, 2014 (Harboe Architects).



Figure 10-169 - Metal fascia and roof of Sun Cottage, 2014 (Harboe Architects).



Figure 10-170 - Interior of lovanna's living room in Sun Cottage, 2014 (Harboe Architects).



Figure 10-171 - Interior of lovanna's living room in Sun Cottage, 2014 (Harboe Architects).



Figure 10-172 - Interior of Eve's apartment in Sun Cottage, 2014 (Harboe Architects).



Figure 10-173 - Interior of Pyracantha Apartment, 2014 (Harboe Architects).

PAVILION

Historic Significance

The Pavilion was first constructed in 1957. The original Pavilion had reinforced wood framing, desert masonry walls and piers, and canvas panels covering the roofs and openings. A fire in 1963 destroyed the Pavilion except for the desert masonry walls and piers. The entire superstructure was reconstructed by 1964, this time in steel with translucent fiberglass panels. Because it was largely rebuilt after the period of significance, the Pavilion has tertiary significance.

Level of Significance

Tertiary

Walls

Materials

The walls in the Pavilion are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction of the Pavilion in 1957.

Condition

The desert masonry walls as well as the fireplace are original elements and are in good condition. There is generally a light soiling on all desert masonry, heavier at the fireplace. The reddish mineral deposits typically found on the face of the stones used in the desert masonry walls burned off in the fire in 1963. As a result, the stones in the Pavilion walls do not have the distinct color of the stones used in the walls throughout the rest of the site.

Roof Structure

Materials

The original roof framing consisted of built-up redwood structural members. The current roof framing is constructed of steel. The steel members are painted red and date from 1964.

Condition

The existing steel roof framing is in good condition.

Roof Surface

Materials

The Pavilion was originally constructed with operable canvas roof panels consisting of canvas wrapped on a wood frame. These panels were operable to control sun shading and natural ventilation. Following the fire in 1963, the Fellowship replaced the fabric roof panels with fiberglass panels. These panels were replaced in the 1990s with acrylic panels. The current roof panels are constructed of fixed translucent acrylic panels with a supplemental canvas interior panel suspended below the acrylic panels to diffuse the day light and replicate the appearance of the original canvas panels. This system dates from 1998.

Condition

The existing acrylic roof panels leak. This typically occurs at the intersection of the acrylic panels & the steel beams. This joint is simply a sealant joint between the 2 materials. The steel and acrylic move differently with thermal expansion. The acrylic panels are fixed in place eliminating sun shading and ventilation control. The texture and appearance of the acrylic panels also differs significantly from the historic canvas panels and fiberglass panels.

Flat Roofs

Materials

The existing flat roofs are made up of a combination of metal and plywood deck covered in a liquid applied membrane roofing system. The fascia at the roof eaves is all painted metal and likely dates from the 1964 reconstruction.

Condition

The flat roofs are in poor condition. The membrane is past its useful life and needs to be replaced. The plywood decking is extensively damaged and needs to be replaced. The metal fascia is in relatively good condition requiring a new coat of paint.

Doors

Materials

The exterior doors are flush wood doors painted red and were installed in 1990.

Condition

The doors are in relatively good condition.

Flooring

Materials

The flooring in the Pavilion is red carpet installed on top of the concrete slab. The carpet is not original to the 1964 reconstruction. The flooring around the fireplace is painted concrete. The flooring in the back of house areas and storage rooms of the Pavilion is concrete.

Condition

The carpet is worn and faded and needs to be replaced. The painted concrete floor is in good condition. The unpainted concrete flooring has some surface stains and is cracked in several locations in the storage spaces.

Canvas Panels

Materials

The canvas panels at the entry corridor were installed in 1964 when the Pavilion was reconstructed. The canvas has likely been replaced multiple times since 1964.

Condition

The current canvas is worn and needs to be replaced.

Curtains

Materials

There are several sets of red fabric curtains in the Pavilion, both at the stage mounted on swinging arms and around the sides of the Pavilion closing off the back of stage and side of stage and seating areas. The current curtains do not date to the 1964 reconstruction.

Condition

The curtains are in fair condition. There are several water stains on both the stage curtains and curtains surrounding the side aisles. There are also tears in the curtains in a few locations.

Seating

Materials

The seating in the Pavilion is supported on a concrete curb and metal frame. Each seat has removable cushions upholstered with red fabric with gold braiding on the seat edge.

Condition

The seats are worn and faded and have a light soiling on the surface.

Orchestra Pit

Materials

The orchestra pit was originally an open pit at the front of the stage. It has now been covered over with a plywood deck supported on wood framing. The plywood deck is covered with red carpet on top to

blend with the rest of the stage area. The side walls and floors of the orchestra pit are smooth concrete. It is currently being used as additional storage space. The pit is accessed through a small basement storage room with concrete walls, floor, and ceiling. The underside of the slab above is supported on steel tube columns. The basement is accessed via a stair on the north side of the seating area.

Condition

The orchestra pit appears to be in good condition.

“City by the Sea” Mural

Materials

The “City by the Sea” mural surrounds an arched opening on the north side of the stage. It has an abstract pattern of geometric shapes in different colors and is a combination of watercolor, tempera, gold ink, black ink, and graphite pencil on art board. The mural sits on a desert masonry base and is surrounded by concrete painted gold. It was originally designed by Frank Lloyd Wright for Midway Gardens; “City by the Sea” referring to Chicago by Lake Michigan. Wright reused the design for the Pavilion mural.

Condition

The mural is in relatively good condition. The paint is faded and there is some soiling on the surface.

Laotse Quote

Materials

The gold panel with the Laotse quote on it was installed when the Pavilion was reconstructed in 1964.

Condition

The gold panel is soiled and has finger prints on it and requires conservation.

Lighting

Materials

The general lighting and stage lighting in the Pavilion dates from the 1964 reconstruction.

Condition

The lighting is outdated and needs to be replaced to optimize performance use in the space.

Back of Stage Area

Materials

The back of stage area is used for storage. It has a concrete floor, desert masonry walls on the exterior side and slanted plywood wall on the stage side. The ceiling is exposed steel structure and underside of the metal deck.

Condition

The concrete floor is in fair condition with areas of staining, cracking, and non-matching previous patches. The plywood panels are in fair condition with some water damage and staining.

Side of Stage Area

Materials

The side of stage area includes corridors, storage rooms and the electrical room. These spaces have concrete floors, a combination of desert masonry and concrete walls, and exposed steel structure and underside of the metal deck at the ceiling.

Condition

The concrete floors and walls are in good condition with minor surface staining. The underside of the metal deck is also in good condition.

Restrooms

Materials

The restrooms were added to the Pavilion during the 1964 reconstruction. They have painted textured plaster walls and ceilings and painted concrete floors. The women's restroom has red carpet over the concrete floor except in the toilet stall. Lighting is achieved with square recessed ceiling fixtures with translucent acrylic lenses. The toilets and sinks are white porcelain with sea foam green laminate counters. Doors are flush wood with a resinous finish.

Condition

The restrooms are generally in good condition. There are some water stains on the painted concrete floor around the toilets. The walls, ceiling and fixtures appear to be in good condition. Doors are in good/fair condition with some scratches and gouges in the wood veneer.

Kitchen

Materials

The kitchen is located on the northwest side of the Pavilion. It has a red ceramic tile floor, a combination of desert masonry and painted gypsum board walls, and a suspended grid ceiling system with lay in acoustical tiles and fluorescent lighting. There is a stainless steel counter and sink, as well as painted plywood shelves.

Condition

The materials and finishes in the kitchen appear to be in good condition.

Catwalks

Materials

The catwalks are used to access the lighting for the Pavilion. They have metal decks and are supported on steel framing. The catwalks are accessed by a metal staircase.

Condition

The catwalks are in fair condition. There are areas of surface corrosion on the framing and metal deck.

Pavilion Office

Materials

The office is located on the northeast side of the Pavilion and is used by the visitor services staff. It has a concrete slab floor covered in carpet, a combination of desert masonry, plywood panel, and painted gypsum board walls, and painted textured plaster ceilings. There are clerestory windows with painted metal frames and glass, and a skylight above the center of the space. A kitchenette with a wood base cabinets, a laminate countertop, and stainless steel sink is located on the north wall of the room. A plywood shelf is mounted on the wall above the kitchenette counter. Lighting consists of directional downlights.

Condition

The materials and finishes in the Pavilion office appear to be in good condition.

Lighting Control Room

Materials

The lighting control room is raised up on a plywood deck supported on wood framing. The space below is used for storage. The sloped ceiling is covered with masonite panels.

Condition

The plywood deck appears to be in good condition. The masonite panels on ceiling are sagging.



Figure 10-174 - Pavilion Location Plan

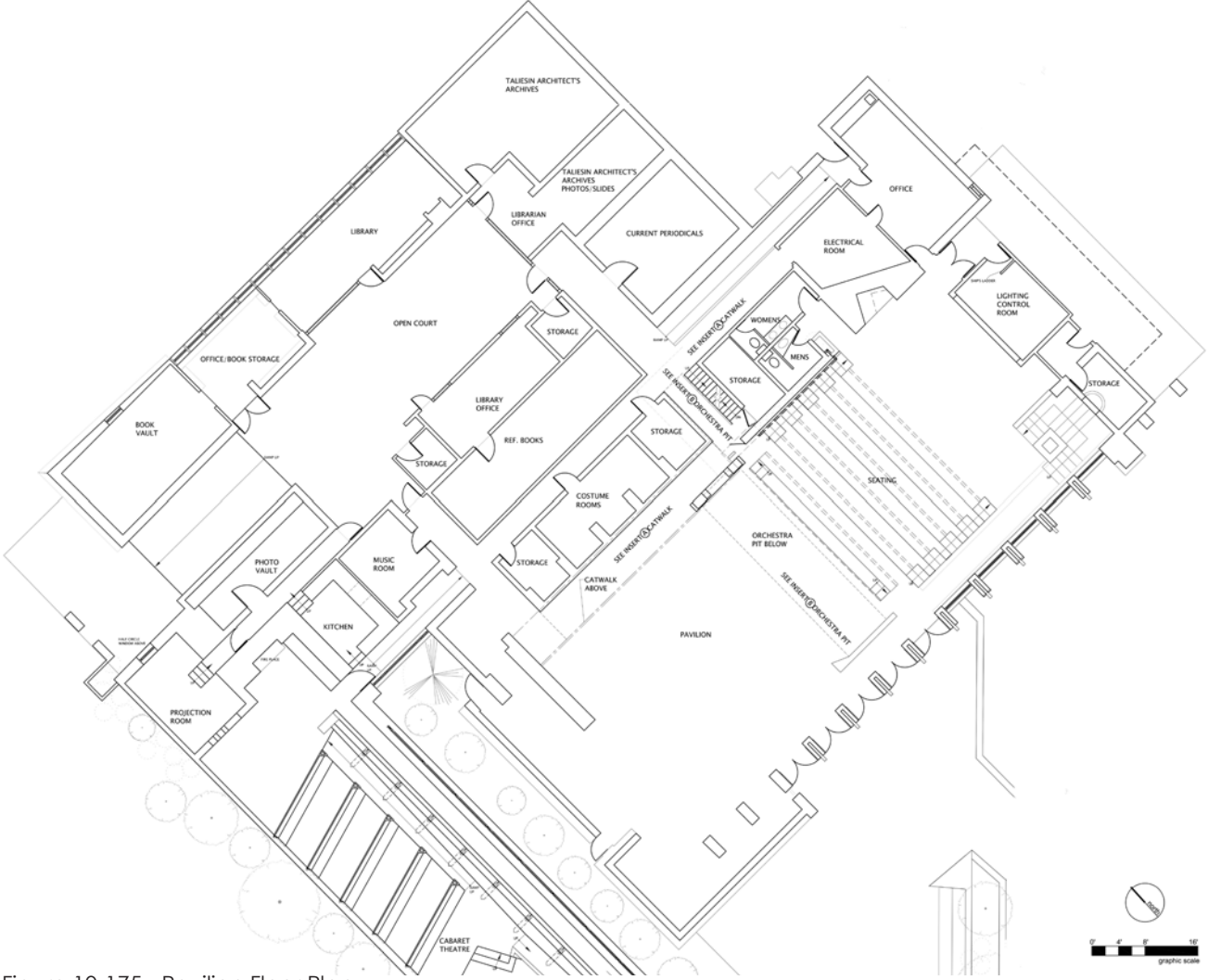


Figure 10-175 - Pavilion Floor Plan



Figure 10-176 - Looking west at exterior of the Pavilion, 2014 (Harboe Architects).



Figure 10-177 - Pavilion roof, 2014 (Harboe Architects).



Figure 10-178 - Detail of Pavilion roof, 2014 (Harboe Architects).



Figure 10-179 - East side of the Pavilion, 2014 (Harboe Architects).



Figure 10-180 - Damaged soffit under flat roof on east side of the Pavilion, 2014 (Harboe Architects).



Figure 10-181 - South entry doors on the Pavilion, 2014 (Harboe Architects).



Figure 10-182 - Interior of the Pavilion, 2014 (Harboe Architects).



Figure 10-183 - Interior of the Pavilion looking from stage at tiered seating, 2014 (Harboe Architects).



Figure 10-184 - City by the Sea mural, 2015 (Harboe Architects).

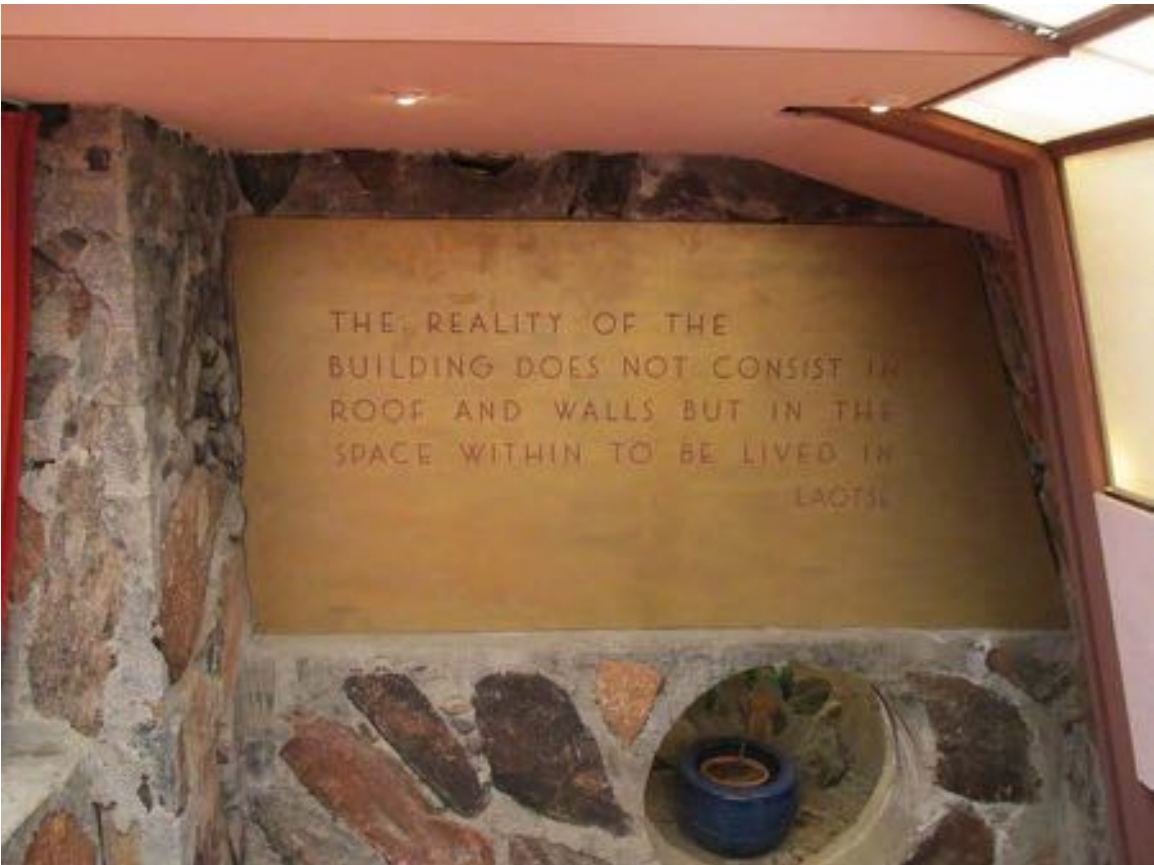


Figure 10-185 - Lao Tse quote, 2015 (Harboe Architects).



Figure 10-186 - Typical water staining on curtains in the Pavilion, 2015 (Harboe Architects).



Figure 10-187 - Seating in the Pavilion, 2015 (Harboe Architects).



Figure 10-188 - Electrical room, 2015 (Harboe Architects).



Figure 10-189 - Pavilion kitchen, 2015 (Harboe Architects).



Figure 10-190 - Back of stage storage room, 2015 (Harboe Architects).



Figure 10-191 - Catwalk, 2015 (Harboe Architects).



Figure 10-192 - Pavilion office, 2015 (Harboe Architects).



Figure 10-193 - Pavilion office, 2015 (Harboe Architects).



Figure 10-194 - Women's restroom, 2015 (Harboe Architects).



Figure 10-195 - Orchestra pit, 2015 (Harboe Architects).

LIBRARY

Historic Significance

The Library occupies the spaces that were originally constructed as the sewing room, costume vault, and other back of house spaces for the Pavilion. It holds a collection of books and periodicals for research by students of the Frank Lloyd Wright School of Architecture. Because it was constructed after the period of significance the Library has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls of the Library are constructed of desert masonry and painted cast in place concrete. Interior walls are painted textured plaster on concrete and textured plaster veneer on gypsum board.

Condition

The desert masonry and cast in place concrete walls are in fair condition. The north and east walls leak and require waterproofing.

Roof

Materials

The existing roof is made up of concrete on a metal deck covered in a liquid applied membrane roofing system or a foam roofing system. The fascia at the roof eaves is all painted metal.

Condition

The membrane roof system and foam roofing systems are in poor condition. They are past their useful lives and need to be replaced. The concrete on metal deck is in good condition. The metal fascia is also in relatively good condition requiring only a new coat of paint.

Paving

Materials

The exterior paving in the courtyard is concrete.

Condition

The concrete is in fair condition. There are some cracks and tar stains.

Doors

Materials

There are two types of doors. There are steel-framed glass doors that are integral to the glazing and there are painted flush wood doors with painted hollow metal frames.

Condition

The doors are generally in good condition. There are some holes from abandoned locksets. There is also some damage to the wood veneer at the bottom of the flush wood doors.

Glazing

Materials

The glazing is all clear glass set in painted steel frames.

Condition

The glazing is in good condition.

Sunshades

Materials

There are tensile fabric sunshades spanning over the courtyard. The sunshades are attached at the fascia on the bottom and on steel arms at the top.

Condition

The sunshades appear to be in good condition.

Flooring

Materials

Flooring inside the library spaces is primarily painted concrete. The floor in the book vault and Taliesin Architects archive room is unpainted concrete and the flooring in the library office is carpet over concrete slab.

Condition

The concrete floors appear to be in good condition except the water staining on the book vault floor. The carpet in the library office is in good condition.

Ceilings

Materials

The ceiling in the library is spray on foam painted black. The ceiling in the book vault is foam board adhered to the underside of the concrete deck. The Taliesin Architects archive rooms have an exposed metal deck, and the library office and reference book storage room have suspended grid acoustical tile ceilings.

Condition

The ceilings appear to be in good condition. There are some water stains on the ceiling tiles along the east wall of the reference book storage room.

Shelving

Materials

There are wood bookshelves in the library and metal shelves in the book vault and reference book room.

Condition

The shelves appear to be in good condition.

Lighting

Materials

The lighting consists of surface mounted ceiling fixtures in the library, book vault, and archives. The fixtures in the library are installed on unistrut framing. The lighting in the library office and reference book storage room are recessed in the suspended ceiling.

Condition

The lighting appears to be in relatively good condition. The lights in the reference book storage room are missing lenses.

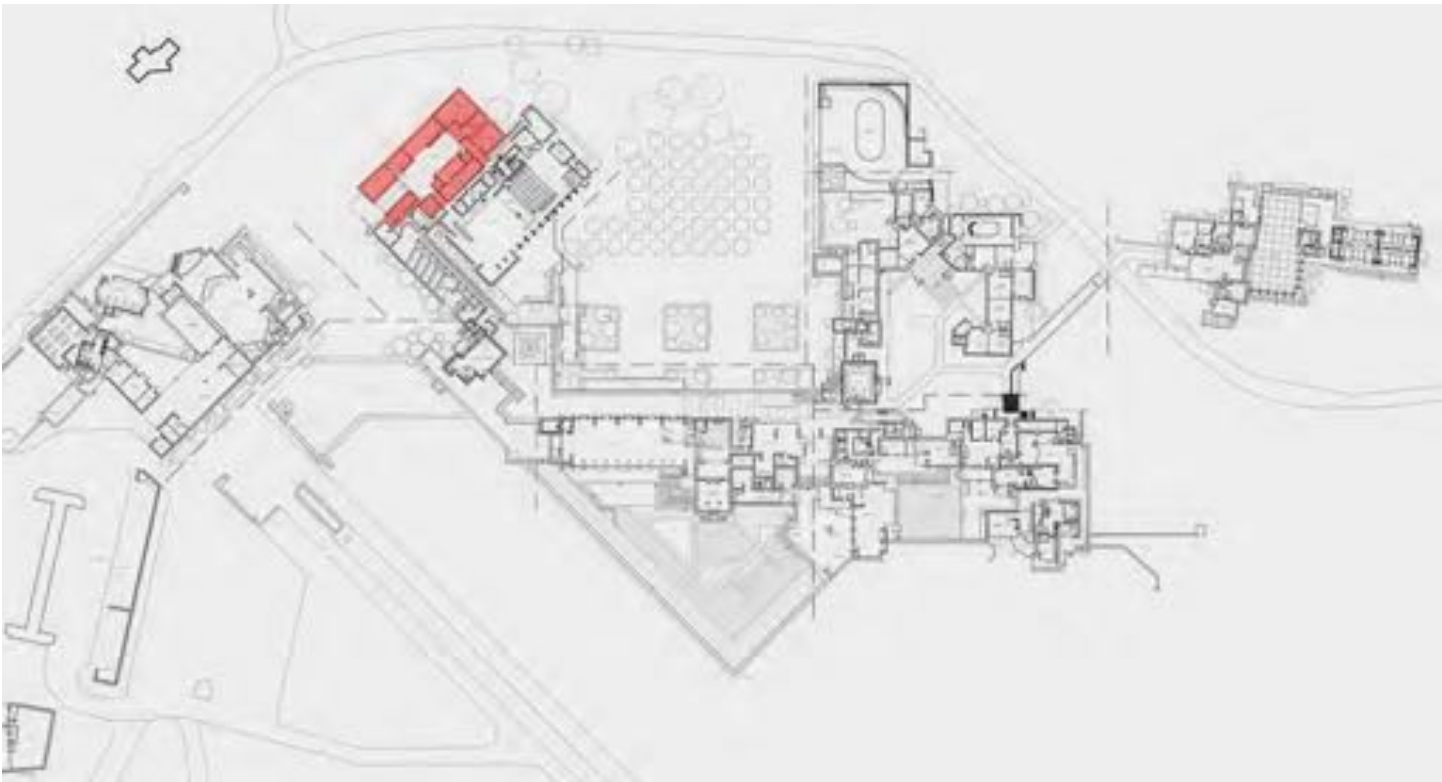


Figure 10-196 - Library Location Plan

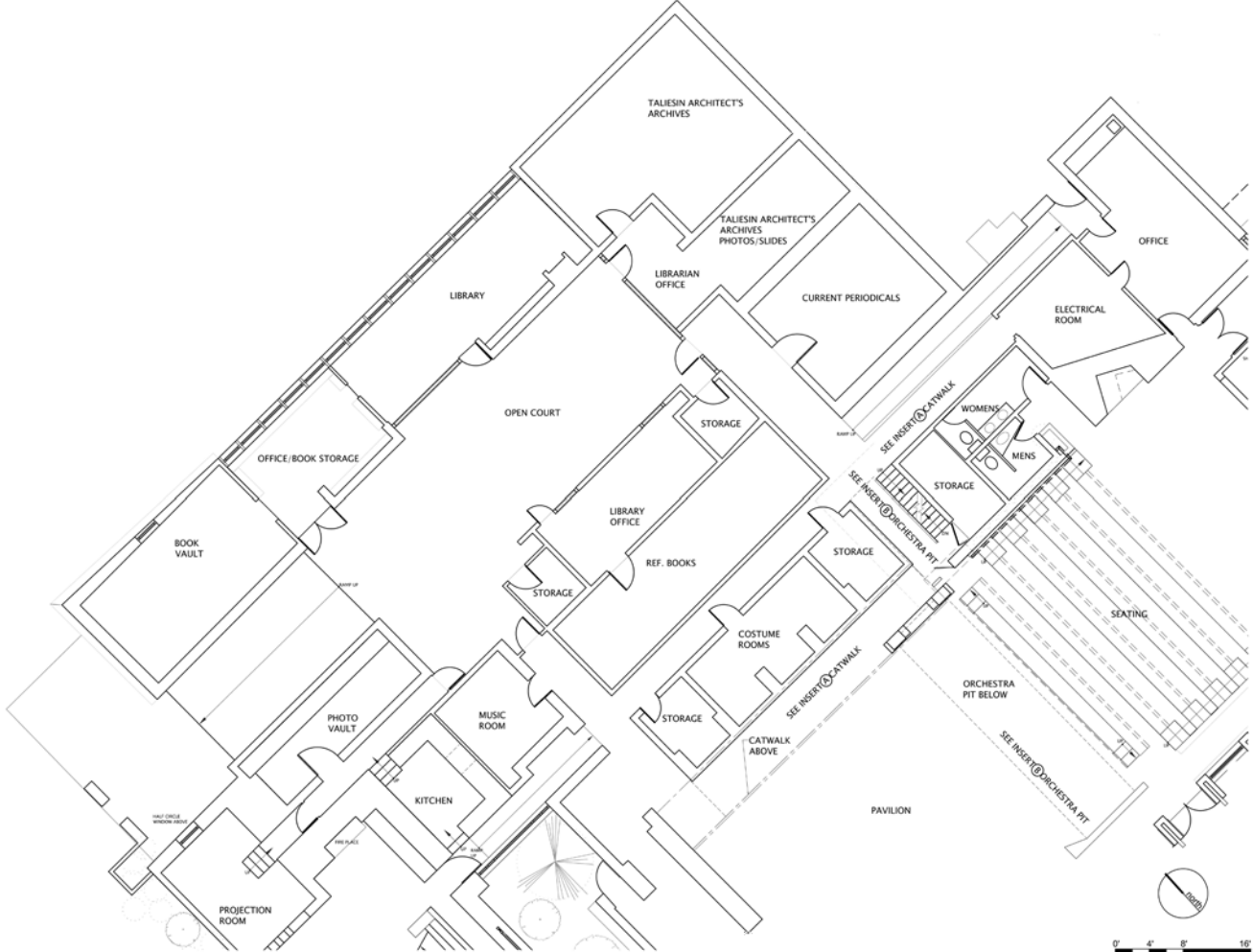


Figure 10-197 - Library Floor Plan



Figure 10-198 - Library courtyard, 2015 (Harboe Architects).



Figure 10-199 - In Library courtyard looking toward entrance, 2015 (Harboe Architects).



Figure 10-200 - Inside library, 2015 (Harboe Architects).

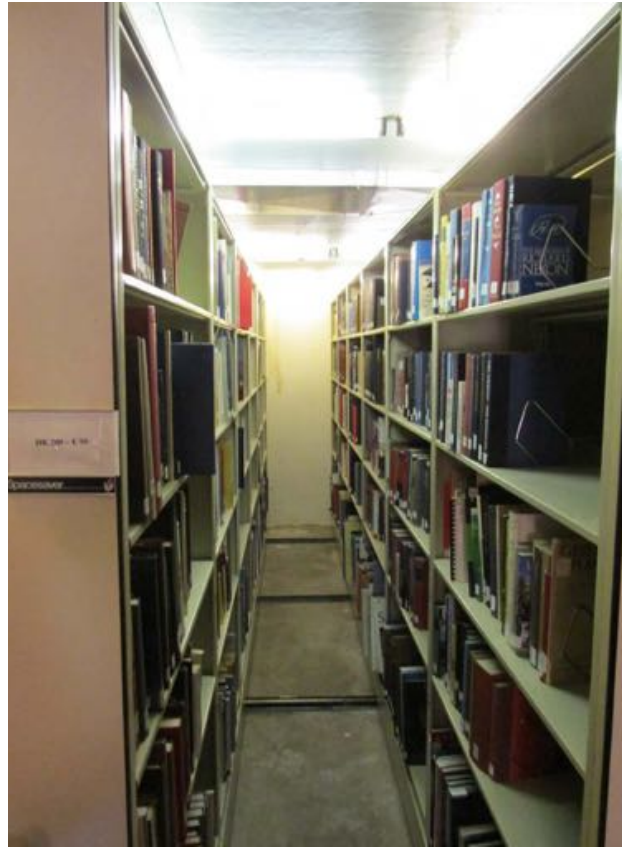


Figure 10-201 - Book vault, 2015 (Harboe Architects).



Figure 10-202 - Taliesin Architects archive room, 2015 (Harboe Architects).



Figure 10-203 - Reference book storage room, 2015 (Harboe Architects).



Figure 10-204 - Library office, 2015 (Harboe Architects).



Figure 10-205 - Water damaged ceiling tiles in the reference book room, 2015 (Harboe Architects).

ATRIUM

Historic Significance

The Atrium was constructed on the east side of the Sun Cottage in 1961 as a practice space for "movements". The space is currently used as a second studio and lounge space for the students of the Frank Lloyd Wright School of Architecture. The Atrium was constructed after the period of significance and has minor significance. An addition was made to the northeast side of the Atrium in 2000.

Level of Significance

Minor

Walls & Piers

Materials

The walls and piers in the Atrium are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. Additionally, there are interior partitions that are textured plaster and painted gypsum board.

Condition

The desert masonry walls and piers as well as the plaster and gypsum board walls are in good condition.

Roof

Materials

The existing roof is a tongue and groove wood deck that is supported by steel beams. The deck is covered in foam insulation and a waterproof membrane. The fascia at the roof eaves is all painted metal.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The wood deck is in fair condition. The southwest portion of the roof is in need of repairs. The metal fascia is in relatively good condition requiring only a new coat of paint.

Doors

Materials

There are three types of doors including flush solid core wood doors painted red, a steel door, and a custom tube steel and glass door.

Condition

The doors are in good/fair condition. There is minor corrosion on the steel tube and glass door, worn paint, and holes from abandoned locksets.

Decorative Concrete Panels

Materials

There are decorative concrete panels that enclose the building glazing on the southeast and southwest sides. The panels are on pivots and can be opened and closed. The panels are constructed of concrete with inset triangular and diamond shaped stained glass. The panels are original to the 1961 construction.

Condition

The decorative concrete panels are in fair condition. Many of the concrete panels are cracked in several locations.

Glazing

Materials

Originally there was no glazing in the Atrium. The current glazing includes clear glass windows set in metal frames. Above the windows on the south (1960s) section of the Atrium are fiberglass panels set in metal frames. In the center of the space, the roof deck is raised and there is a glass and metal frame clerestory.

Condition

The clear glass windows in metal frames appears to be in good condition with minor corrosion and worn paint. There is one crack in the glass on the south side of the conference room. The fiberglass panels are in poor condition. They are stained, warped, and have a few small holes in them. The fiberglass panels are set with foam tape which is coming off, displacing the panels. The clerestory windows are in fair condition and have some minor surface corrosion on the frames.

Skylights

Materials

The skylights were originally uncovered openings in the roof when the Atrium was constructed in 1961. The openings were covered with skylights in the 1970s. There is one large pyramidal skylight at the center of the Atrium, as well as four additional smaller skylights.

Condition

The pyramidal skylight is cracked and leaking and needs to be replaced. At the time of the survey, the pyramidal skylight was covered with a plastic tarp. The other skylights appear to be in good condition.

Flooring

Materials

The flooring in the Atrium is vinyl tile on a concrete slab.

Condition

The tile floor is in fair condition. Many of the tiles are worn, scuffed and scratched.

Ceiling

Materials

The ceiling in the Atrium is made up of canvas panels set between painted steel beams. The ceilings in the kitchen and bathroom are painted textured plaster coating on gypsum board.

Condition

The ceiling is generally in good condition. There are select areas of water staining on the canvas in the back hallway near the kitchen and bathroom. The ceiling in the kitchen is water damaged near the roof drain pipe.

Millwork

Materials

There are built-in wood shelves along the west wall of the Atrium.

Condition

The shelves are in good condition.

Lighting

Materials

Lighting in the Atrium is achieved with strip fluorescents at the perimeter light troughs.

Condition

Lighting is in good condition.

Kitchen

Materials

The kitchen has a ceramic tile floor, gypsum board ceiling and walls with painted textured plaster coating, plywood base cabinets and shelves, laminate countertop, and a stainless steel sink.

Condition

The kitchen is in fair condition. There is a light soiling on the tile floor, water damage at the ceiling near the roof drain, and some delamination and damage on the plywood cabinets.

Bathroom

Materials

The bathroom has a concrete floor, painted gypsum board walls and ceiling, plywood cabinets and shelves, solid surface countertop, and ceramic tile in the shower. The light fixture is a strip fluorescent.

Condition

The bathroom is in good condition. There is some staining on the floor and the light fixture is missing the lense.

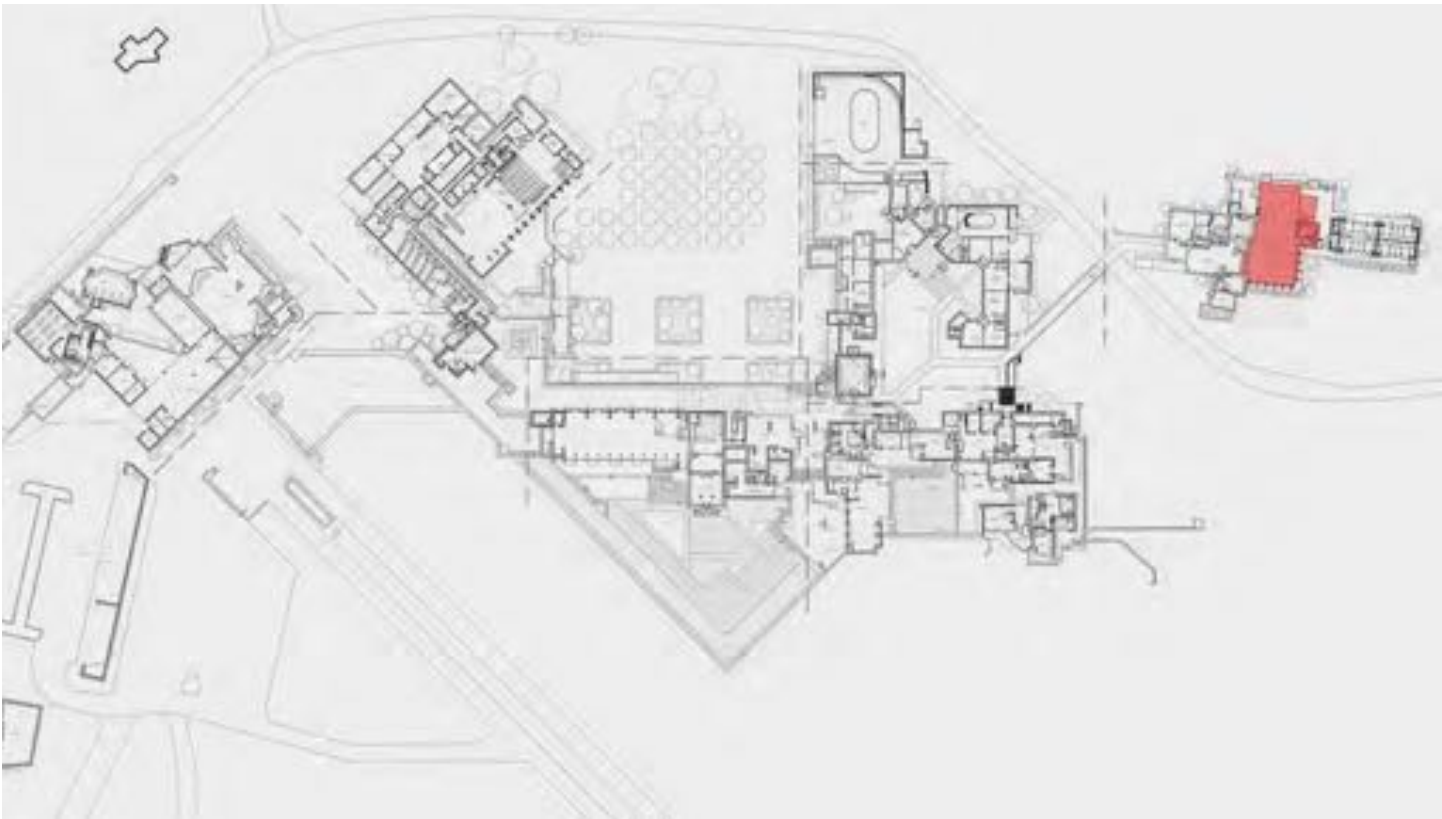


Figure 10-206 - Atrium Location Plan

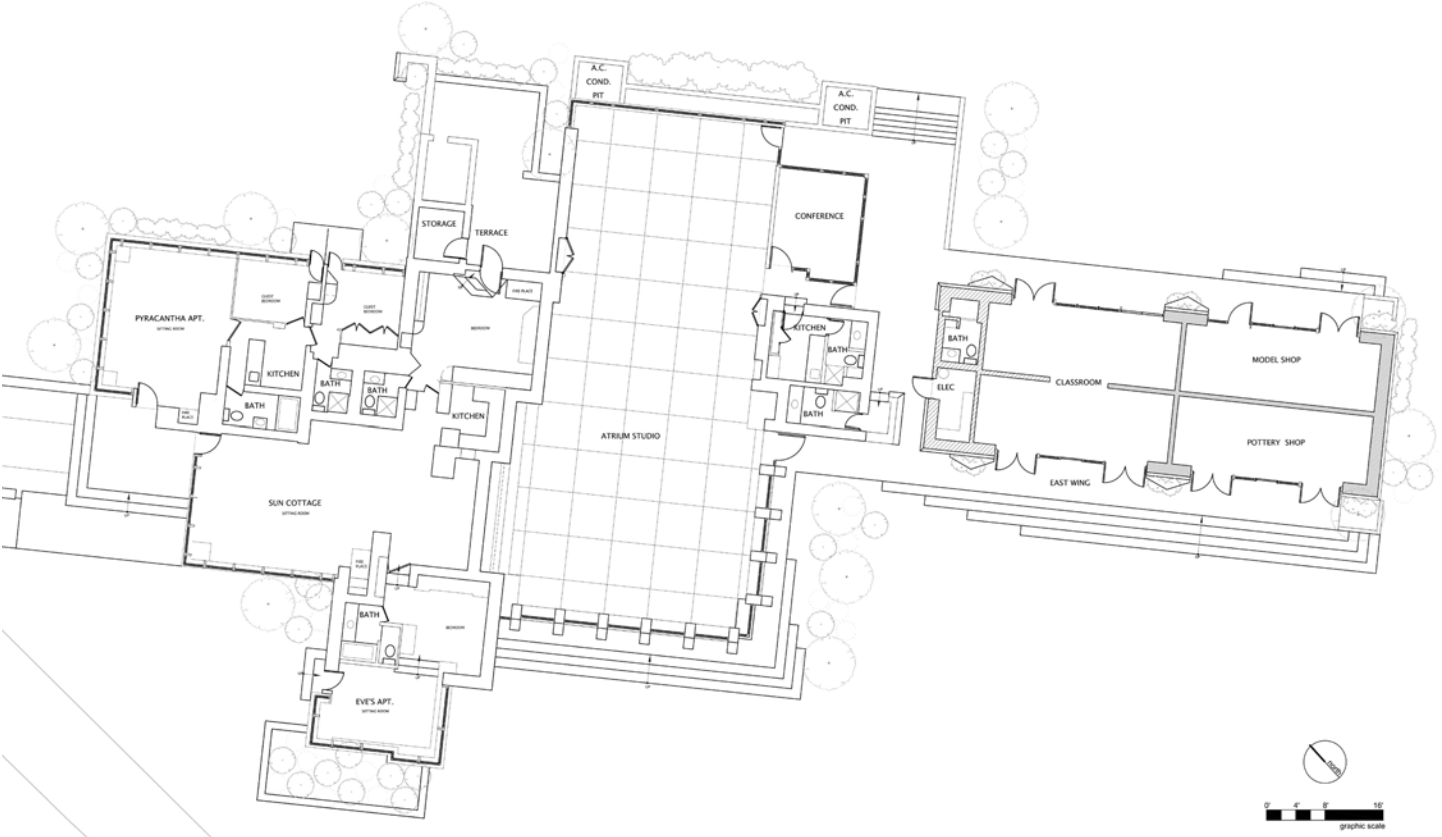


Figure 10-207 - Atrium Floor Plan

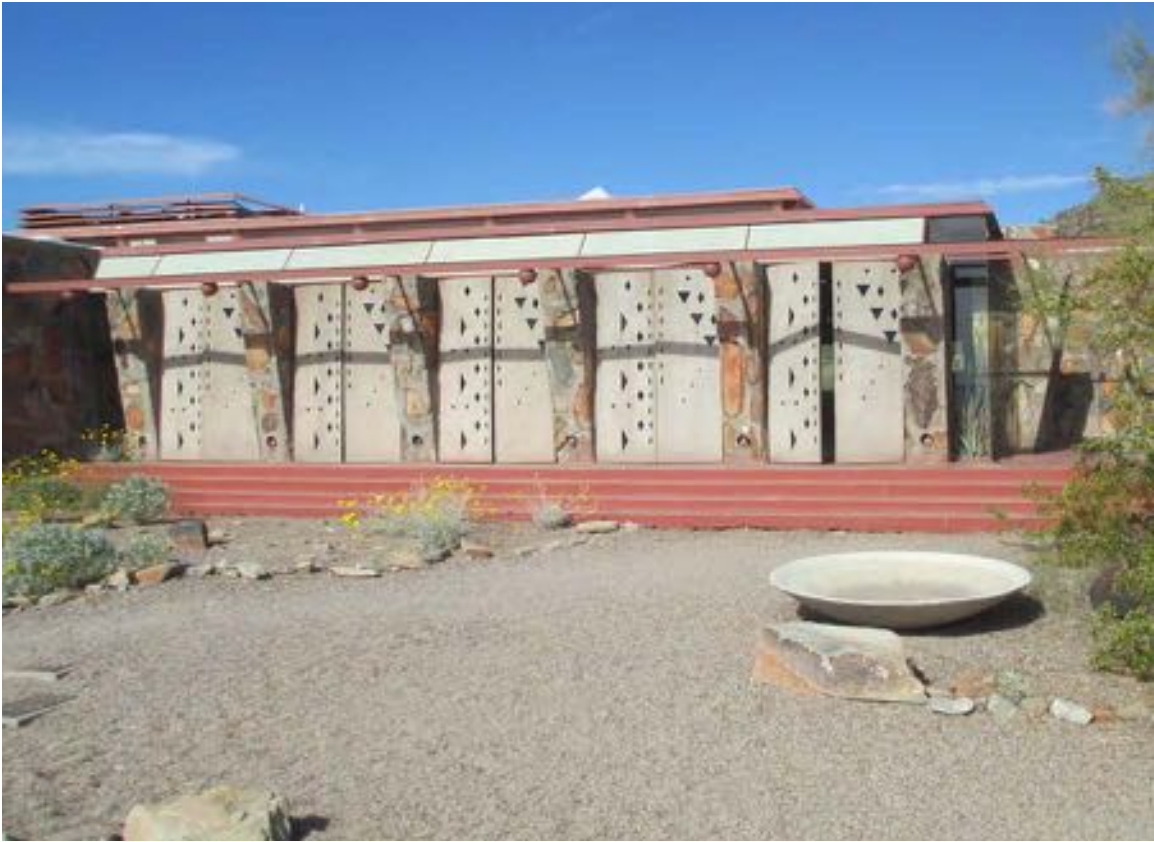


Figure 10-208 - Exterior of Atrium looking northeast, 2014 (Harboe Architects).



Figure 10-209 - Concrete panels and fiberglass panels above, 2014 (Harboe Architects).



Figure 10-210 - Interior of Atrium, 2014 (Harboe Architects).



Figure 10-211 - Interior of Atrium, 2014 (Harboe Architects).



Figure 10-212 - Atrium skylight, 2014 (Harboe Architects).



Figure 10-213 - Clerestory windows showing corrosion on metal frame, 2014 (Harboe Architects).



Figure 10-214 - Atrium addition, 2015 (Harboe Architects).



Figure 10-215 - Atrium addition, 2015 (Harboe Architects).



Figure 10-216 - Atrium kitchen, 2015 (Harboe Architects).

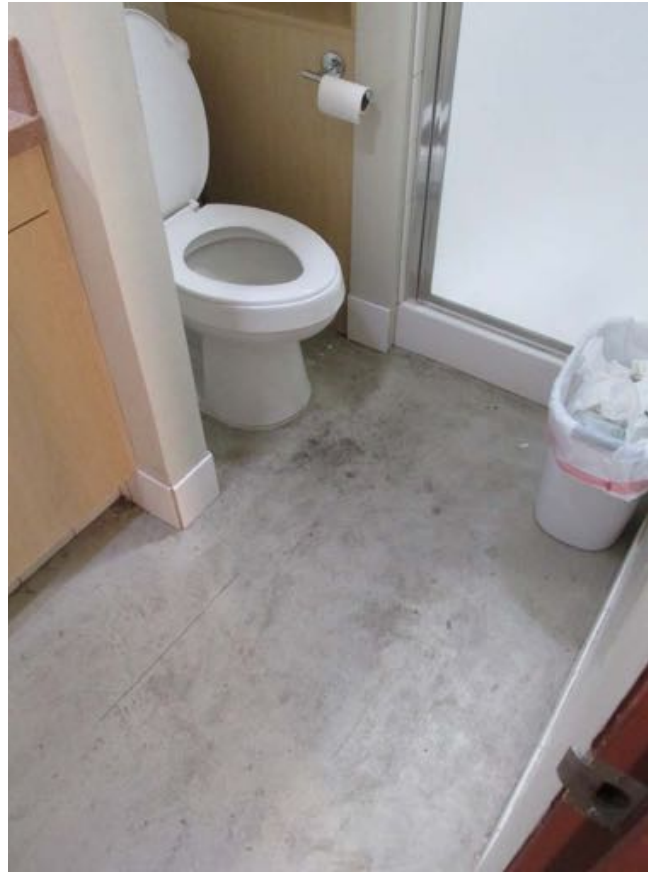


Figure 10-217 - Bathroom, 2015 (Harboe Architects).



Figure 10-218 - Water damage at kitchen ceiling, 2015 (Harboe Architects).



Figure 10-219 - Water staining on canvas ceiling next to kitchen entrance, 2015 (Harboe Architects).

EAST WING

Historic Significance

The East Wing was designed and constructed at the same time as the Atrium in 1961. The East Wing was originally constructed as a dormitory for apprentices. It currently houses classrooms, a model shop and the ceramics studio. The East Wing was constructed after the period of significance and has minor significance.

Level of Significance

Minor

Walls

Materials

The walls in the East Wing are constructed of CMU block. The exterior CMU walls are clad with desert masonry. The walls date from the original construction of the East Wing in 1961.

Condition

The walls appear to be in good condition.

Roof

Materials

The existing roof is a tongue and groove wood deck supported by wood framing. The deck is covered in foam insulation and a waterproof membrane.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The wood deck appears to be in good condition.

Doors

Materials

The exterior doors on the East Wing are flush solid core wood doors painted red. There is a metal door on the north facade.

Condition

The painted wood doors are in good condition. The metal doors and surrounding metal panels are corroded.

Glazing

Materials

The glazing is clear glass set in metal frames on the north facade and wood frames on the south facade.

Condition

The glazing is in good condition. The wood frames are in fair condition.

Flooring

Materials

The flooring in the East Wing is painted concrete.

Condition

The flooring is in good condition.

Ceilings

Materials

The ceiling in the East Wing is the exposed underside of the wood decking which has been painted white.

Condition

The ceiling appears to be in good condition.

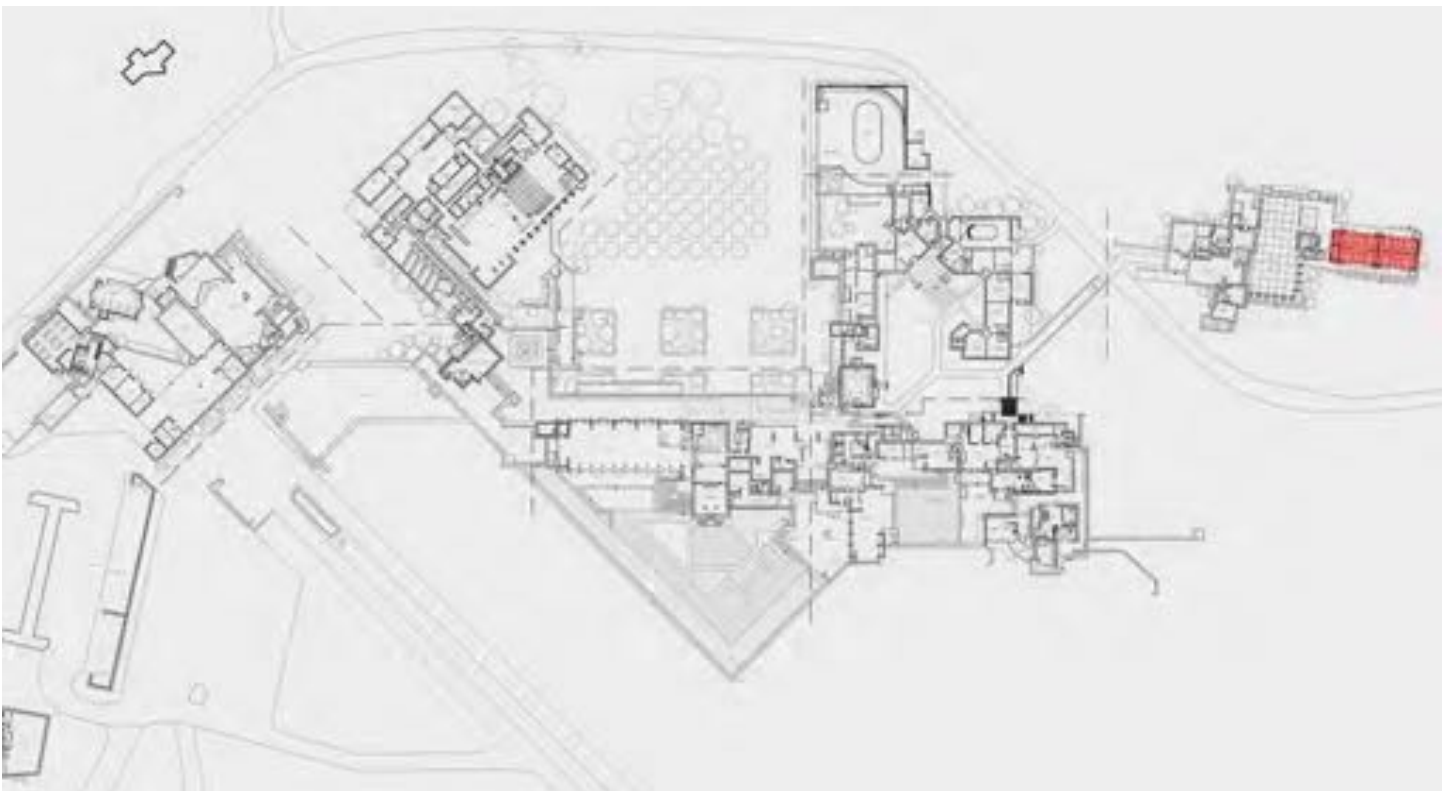


Figure 10-220 - East Wing Location Plan

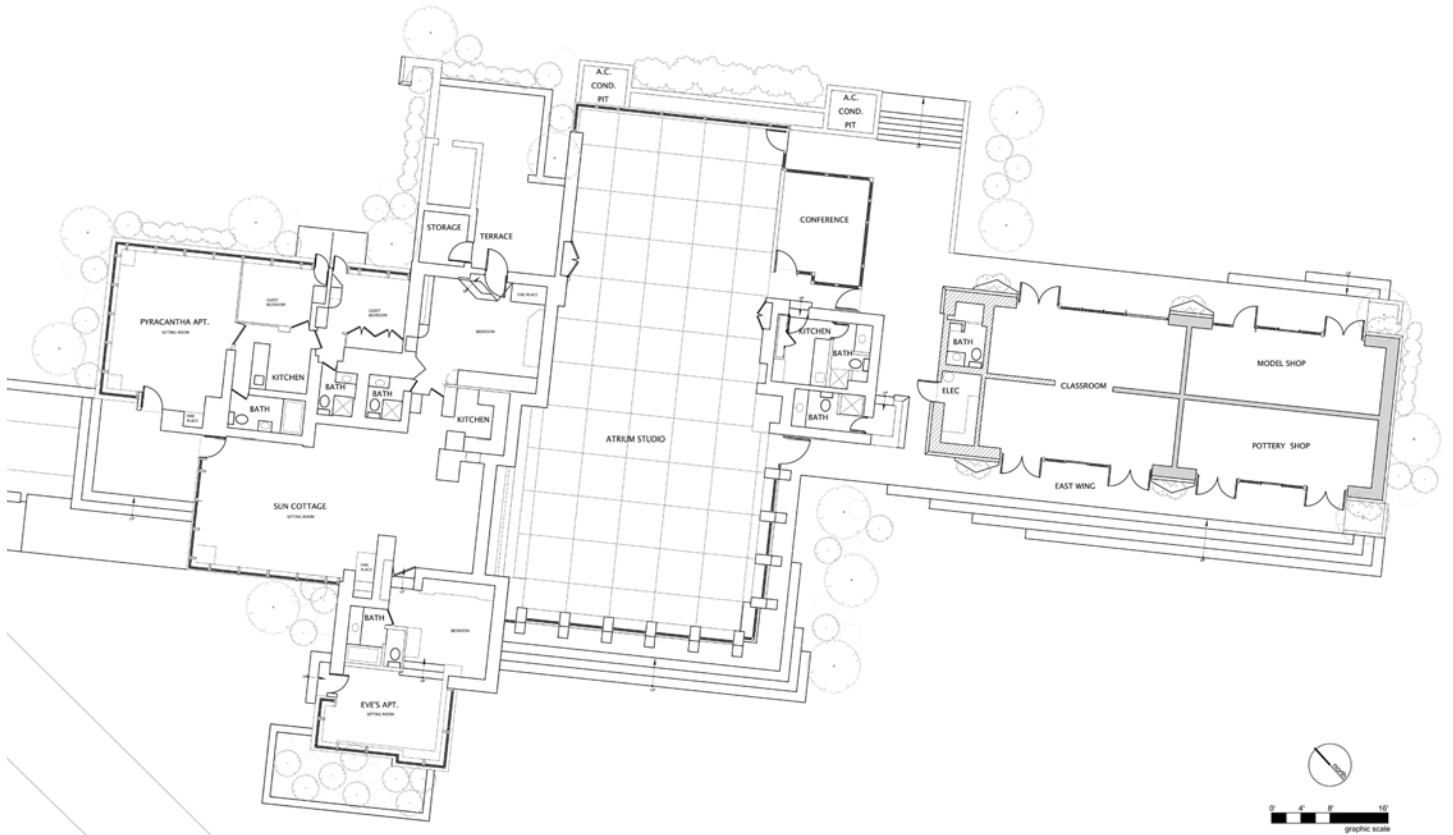


Figure 10-221 - East Wing Floor Plan



Figure 10-222 - Looking east at the East Wing, 2014 (Harboe Architects).



Figure 10-223 - Looking southeast at the East Wing, 2014 (Harboe Architects).



Figure 10-224 - Interior of the East Wing, 2014 (Harboe Architects).



Figure 10-225 - East Wing classroom, 2015 (Harboe Architects).



Figure 10-226 - East Wing ceramics studio, 2015 (Harboe Architects).



Figure 10-227 - North side of East Wing, 2015 (Harboe Architects).



Figure 10-228 - Metal door and glazing on north side of East Wing, 2015 (Harboe Architects).

FINANCE OFFICE (FORMER OLGIVANNA LLOYD WRIGHT ROOMS)

Historic Significance

The Finance Office is located in Olgivanna Lloyd Wright's former closet and lower room. This building was constructed in 1969. Because it was constructed after the period of significance, the Finance Office has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls in the Finance Office are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in 1969. The interior walls are painted textured plaster on gypsum board and date from the 2010 remodeling of the space.

Condition

The desert masonry walls are in good condition. The plaster walls are in good condition with minor chips and scuffs.

Roofs

Materials

The existing roof is a plywood deck supported by steel beams. The deck is covered in foam insulation and a built-up liquid applied membrane. There is painted steel fascia with small square cubes around the edge of the roof.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The plywood deck appears to be in good condition. The paint on the steel fascia is worn and there is some minor corrosion.

Soffits

Materials

The soffits are gypsum board with a painted textured plaster coating.

Condition

The soffits are in fair condition. They have some water staining and delamination.

Doors

Materials

The exterior doors are glass and painted metal with painted metal frames. The interior doors are flush wood with a clear resinous finish and wood jambs.

Condition

The exterior doors are in good condition with some small holes from abandoned screws. The interior doors are in good condition with minor nicks and scratches.

Glazing

Materials

The glazing is all clear glass set in painted metal frames, including the clerestory.

Condition

The glazing is in good condition.

Exterior Paving

Materials

The exterior paving in the courtyard is ceramic tile.

Condition

The tile is in poor condition. There are areas of damaged and missing tile, primarily at the joints in the slab below.

Courtyard Gates

Materials

The gates into the courtyard have painted metal frames with acrylic and colored glass panels.

Condition

The gates appear to be in good condition.

Flooring

Materials

The floors are red integrally colored concrete.

Condition

The flooring is in good condition.

Ceilings

Materials

Ceilings are painted gypsum board. The ceilings date from a 2010 remodeling of the space.

Condition

The ceilings are generally in good condition.

Skylight

Materials

The skylight has a wood frame with a fabric panel laylight.

Condition

The skylight is in good condition.

Millwork

Materials

There are wood louvers below the clerestory windows and wood base board.

Condition

The wood trim and louvers are in good condition.

Lighting

Materials

The lighting consists of recessed cans with aluminum frames and glass lenses as well as fluorescent uplighting.

Condition

The lighting is in good condition.



Figure 10-229 - Finance Office Location Plan

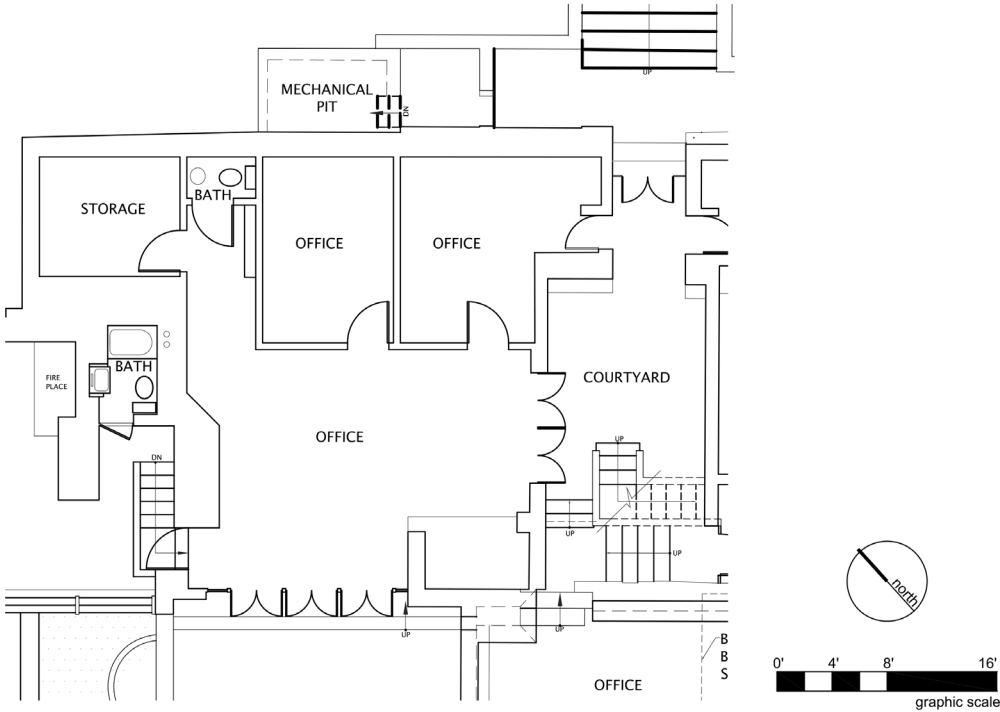


Figure 10-230 - Finance Office Floor Plan



Figure 10-231 - Courtyard outside the Finance Office, 2015 (Harboe Architects).



Figure 10-232 - Exterior of Finance Offices, 2015 (Harboe Architects).



Figure 10-233 - Opening to courtyard outside of the Finance Offices, 2015 (Harboe Architects).



Figure 10-234 - Metal and glass gate at opening to courtyard outside of Finance Office, 2015 (Harboe Architects).



Figure 10-235 - Metal and glass gate at opening to courtyard outside of Finance Office, 2015 (Harboe Architects).



Figure 10-236 - View from lower garden to south side of the Finance Office, 2015 (Harboe Architects).



Figure 10-237 - Missing fascia on back of trellis on south side of Finance Office (Harboe Architects).



Figure 10-238 - Interior of Finance Offices, 2015 (Harboe Architects).



Figure 10-239 - Clerestory windows in Finance Office, 2015 (Harboe Architects).



Figure 10-240 - Interior of Finance Offices, 2015 (Harboe Architects).



Figure 10-241 - Kitchenette in Finance Offices, 2015 (Harboe Architects).

DEKOVEN HILL OFFICE

Historic Significance

The Dekoven Hill Office is located in Johnny Hill's former apartment. This building was constructed in the 1970s. Because it was constructed after the period of significance, the Dekoven Hill Office has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls in the Dekoven Hill office are a combination of desert masonry and painted wood board below the windows. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The interior walls are desert masonry except the bathroom which has painted textured plaster walls.

Condition

The desert masonry and plaster walls are in good condition.

Roofs

Materials

The existing roof is a plywood deck supported by steel beams. The deck is covered in foam insulation and a built-up liquid applied membrane. There is painted wood fascia around the edge of the roof.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The deck appears to be in good condition. The paint on the fascia is worn in some locations.

Soffits

Materials

The soffits are painted wood panels.

Condition

The soffits are in good condition.

Doors

Materials

The doors are painted hollow core flush wood doors and glass and painted metal doors with painted metal frames.

Condition

The doors are in good condition.

Glazing

Materials

The glazing is all clear glass set in painted metal frames.

Condition

The glazing is in good condition.

Exterior Paving

Materials

The exterior paving on the terrace on the east side of the office is painted concrete.

Condition

The concrete is in poor condition. There are some cracks and delamination of the surface concrete. The slab is heaved and a tripping hazard.

Flooring

Materials

The floor is painted concrete.

Condition

The flooring is in fair condition. There are areas of previous patches and some damage.

Ceilings

Materials

Ceilings in the office are painted gypsum board between wood box beams. The ceiling in the kitchen is exposed concrete and textured plaster in the bathroom.

Condition

The ceilings are generally in good condition. There is a section of ceiling with water damage.

Millwork

Materials

There is wood trim and built-in shelving in the office.

Condition

The wood trim and shelving is in good condition.

Kitchen

Materials

The counter is ceramic tile and extends out to the exterior window sill. The cabinets are flush wood.

Condition

The ceramic tile is in fair condition. There are broken and missing tiles and grout. The cabinets are in good condition.



Figure 10-242 - Dekoven Hill Office Location Plan

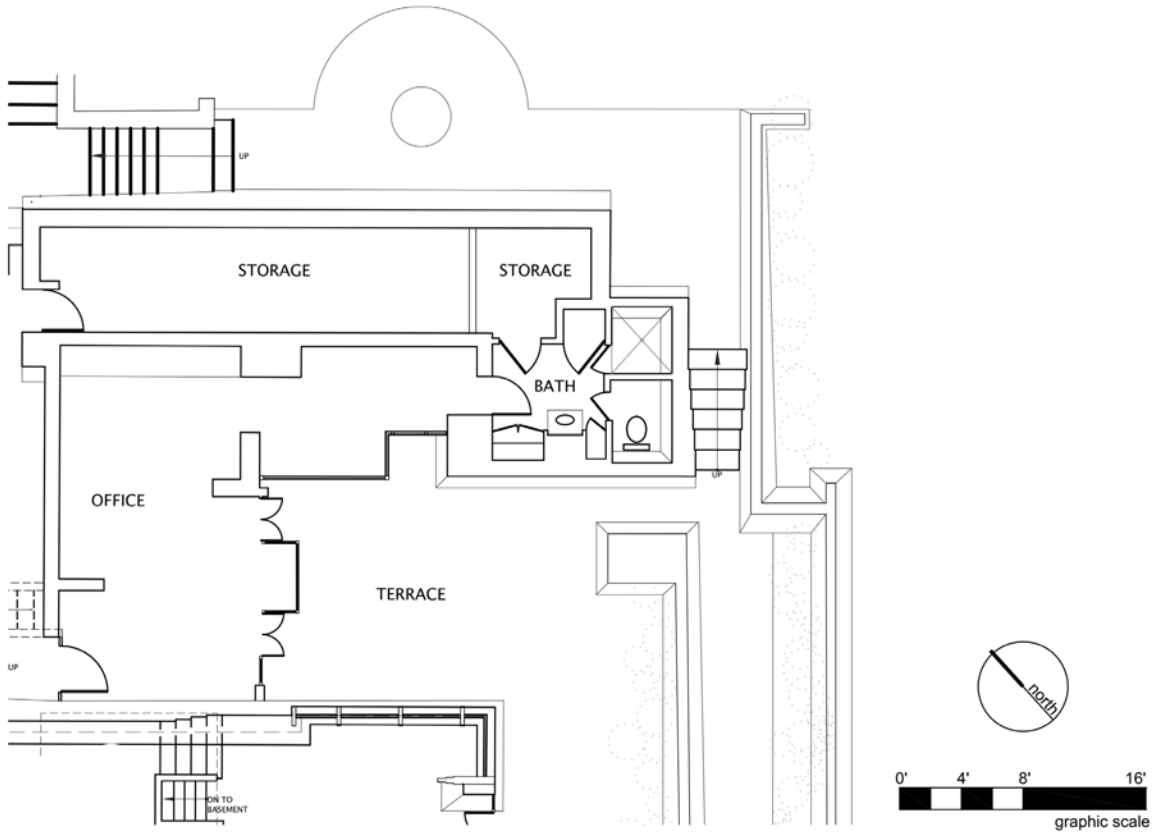


Figure 10-243 - Dekoven Hill Office Floor Plan



Figure 10-244 - Exterior of Dekoven Hill Office, 2015 (Harboe Architects).



Figure 10-245 - Terrace outside Dekoven Hill Office, 2015 (Harboe Architects).



Figure 10-246 - Exterior of Dekoven Hill Office, 2015 (Harboe Architects).

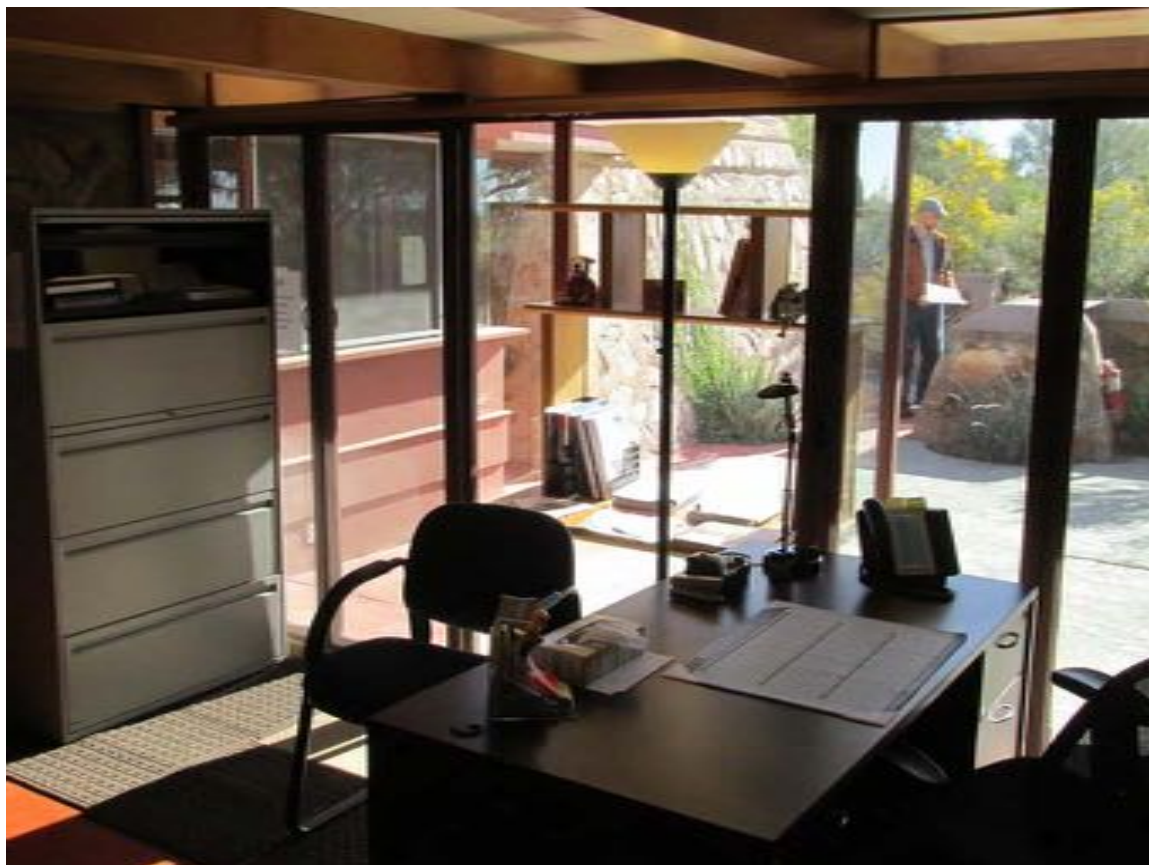


Figure 10-247 - Interior of Dekoven Hill Office, 2015 (Harboe Architects).



Figure 10-248 - Looking west through galley kitchen, 2015 (Harboe Architects).



Figure 10-249 - Looking into bathroom, 2015 (Harboe Architects).



Figure 10-250 - Kitchen countertop, 2015 (Harboe Architects).



Figure 10-251 - Built-in wood shelves in Dekoven Hill office, 2015 (Harboe Architects).

DR. JOE OFFICE

Historic Significance

The Dr. Joe Office is located in Dr. Joseph Rorke's former apartment. This building was constructed in the 1970s and divided into 3 levels including an upper and lower room and a small basement storage room. Because it was constructed after the period of significance, the Dr. Joe Office has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls on the Dr. Joe Office are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in the 1970s. Interior walls are a combination of desert masonry and painted textured plaster on gypsum board. The interior was renovated in 2014.

Condition

The exterior desert masonry walls are in good condition. There are select areas at the concrete wall caps on the wall surrounding the terrace outside the lower room that are cracked and damaged. The desert masonry planter has been infilled with concrete. This concrete is cracked. The interior walls are in good condition.

Roofs

Materials

The existing roof is a plywood deck supported by steel beams over the upper room and on wood beams over the lower room. Wood beams cantilever out beyond the exterior wall on the east side of the lower room and form a canopy over the entry. The roof deck is covered in foam insulation and a built-up liquid applied membrane. There is painted wood fascia around the edge of the roof. The fascia at the cantilevered roof on the east side has painted square wood dentils.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The deck appears to be in good condition. The painted wood beams appear to be in good condition, as does the fascia and dentils around the cantilevered roof and the fascia at the main roof edge.

Soffits

Materials

The soffits are a combination of sections of painted plywood and painted plaster.

Condition

The soffits are in good condition.

Doors

Materials

The exterior doors are glass and painted metal doors with painted metal frames. The interior doors are flush wood doors with wood frames. The doors and frames have a resinous finish.

Condition

The doors are in good condition.

Glazing

Materials

The glazing at the upper room is clear glass set in painted metal frames. Some of the sashes are operable. The north clerestory glass has film on it. There is a canvas sunscreen on stainless steel rods covering the windows on the southwest side of the upper room. Windows in the lower room are a combination of steel T and wood frames with painted wood shutters on the exterior.

Condition

The glazing is in good condition. The film on the north clerestory windows is scratched and delaminated.

Exterior Paving

Materials

The exterior paving on the terrace outside the Dr. Joe Office is concrete.

Condition

The concrete is in good condition.

Flooring

Materials

The floors are carpet over painted concrete. The bathroom floor is vinyl tile.

Condition

The flooring is in good condition.

Ceilings

Materials

The ceiling in the upper room is comprised of a grid of steel tubes with fabric panels between. There are some areas on the west side of the room that are painted textured board. The ceiling in the lower room is comprised of exposed wood beams and painted gypsum board. The basement ceiling is painted textured plaster.

Condition

The ceilings are generally in good condition. There are a few small areas of water staining.

Millwork

Materials

Millwork consists of built-in shelves, cabinets, light troughs, and trim. The millwork has a resinous finish.

Condition

The millwork is in good condition.



Figure 10-252 - Dr. Joe Office Location Plan

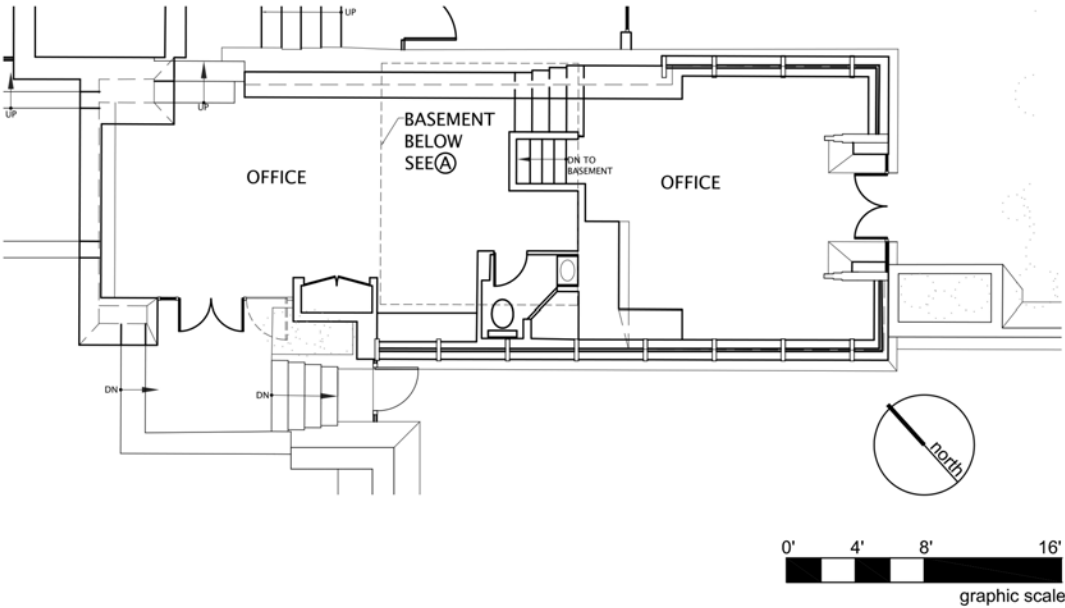


Figure 10-253 - Dr. Joe Office Floor Plan



Figure 10-254 - Exterior of Dr. Joe Office, 2015 (Harboe Architects).



Figure 10-255 - Exterior of Dr. Joe Office, 2015 (Harboe Architects).



Figure 10-256 - Exterior of upper level of Dr. Joe Office, 2015 (Harboe Architects).



Figure 10-257 - Roof of Dr. Joe Office, 2015 (Harboe Architects).



Figure 10-258 - Interior of Dr. Joe Office looking west at upper level, 2015 (Harboe Architects).



Figure 10-259 - Interior of Dr. Joe Office looking east at lower level, 2015 (Harboe Architects).



Figure 10-260 - Interior of Dr. Joe Office, 2015 (Harboe Architects).



Figure 10-261 - Door to Dr. Joe Office from interior, 2015 (Harboe Architects).



Figure 10-262 - Door to Dr. Joe Office from exterior, 2015 (Harboe Architects).

CLINIC OFFICE

Historic Significance

The Clinic Office is located in Dr. Joseph Rorke's former medical clinic. This building was constructed in the early 1970s. Because it was constructed after the period of significance, the Clinic Office has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls in the Clinic Office are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in the 1970s. The interior walls are painted textured plaster on gypsum board.

Condition

The exterior desert masonry walls and interior plaster walls are in good condition.

Roofs

Materials

The existing roof is a plywood deck supported by steel beams. The roof deck is covered in foam insulation and a built-up liquid applied membrane. There is painted wood fascia around the edge of the roof overhang over the south porch.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The deck appears to be in good condition. There is a temporary wood support at the corner of the roof overhang on the south side.

Soffits

Materials

There is a soffit under the projecting roof over the porch on the south side of the building.

Condition

The finish material on the soffit is missing, exposing the structure and underside of plywood deck.

Doors

Materials

The exterior doors are glass and painted metal doors with painted metal frames. Interior doors are flush wood with wood frames. Flush wood doors and frames have a resinous finish.

Condition

The doors are in good condition.

Glazing

Materials

The glazing surrounding the entry doors is clear glass set in painted metal frames. There is a clerestory surrounding the north part of the building. The clerestory has a combination of large panes of clear glass and small triangular panes of colored glass. The glazing is divided by concrete piers.

Condition

The glazing appears to be in good condition.

Exterior Paving

Materials

The exterior paving outside the Clinic Office is concrete.

Condition

The concrete is in relatively good condition. There are some cracks in the concrete paving.

Flooring

Materials

The floors are painted concrete in the north part of the building and 12x12 ceramic tile in the south part of the building.

Condition

The flooring is generally in good condition. There are some cracks in both the painted concrete and ceramic tile floors.

Ceilings

Materials

Ceilings are painted textured plaster on gypsum board.

Condition

The ceilings are generally in good condition.

Skylights

Materials

The skylights have acrylic panels set in wood frames.

Condition

The skylights are in good condition.

Lighting

Materials

Lighting is a combination of suspended fluorescent upright fixtures and recessed ceiling fixtures.

Condition

The lighting is in good condition.



Figure 10-263 - Clinic Office Location Plan

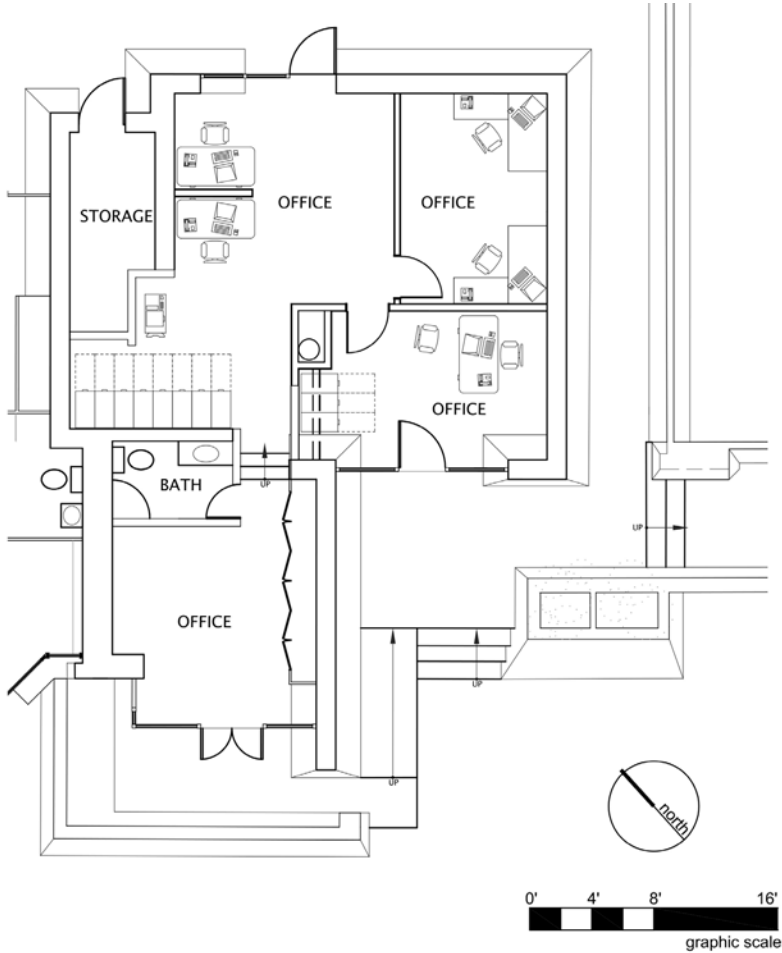


Figure 10-264 - Clinic Office Floor Plan



Figure 10-265 - South facade of Clinic Office, 2015 (Harboe Architects).



Figure 10-266 - South facade of Clinic Office, 2015 (Harboe Architects).



Figure 10-267 - Roof of Clinic Office, 2015 (Harboe Architects).



Figure 10-268 - North facade of Clinic Office, 2015 (Harboe Architects).



Figure 10-269 - Interior of Clinic Office looking northeast, 2015 (Harboe Architects).



Figure 10-270 - Interior of Clinic Office looking northeast, 2015 (Harboe Architects).



Figure 10-271 - Interior of Clinic Office looking southwest, 2015 (Harboe Architects).



Figure 10-272 - Interior of Clinic Office, 2015 (Harboe Architects).



Figure 10-273 - Bathroom in Clinic Office, 2015 (Harboe Architects).

CARNEY OFFICE

Historic Significance

The Carney Office is located in Dick Carney's former apartment. This building was constructed in the 1970s. Because it was constructed after the period of significance, the Carney Office has minor significance.

Level of Significance

Minor

Walls

Materials

The exterior walls on the Carney Office are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction in the 1970s. The interior walls are primarily desert masonry with a few painted gypsum board partitions.

Condition

The desert masonry walls are in good condition. The gypsum board walls are generally in good condition except for a small area next to the bathroom that has water damage.

Roofs

Materials

The existing roof is a plywood deck supported by steel beams. The deck is covered in foam insulation and a built-up liquid applied membrane.

Condition

The membrane roof system is in poor condition. The membrane is past its useful life and needs to be replaced along with the foam insulation. The wood deck appears to be in good condition.

Soffits

Materials

The soffits are painted plaster.

Condition

The soffits appear to be in good condition.

Canopies

Materials

There are canopies on the south and north side of the building with a steel tube structure and canvas top.

Condition

The canopies appear to be in relatively good condition. There are some areas of worn paint and minor corrosion on the steel tube frames.

Doors

Materials

The exterior doors are glass and painted metal doors with painted metal frames. There is one painted wood double door with a metal frame. The interior doors are painted flush wood with wood frames.

Condition

The doors are in good condition.

Glazing

Materials

The glazing, including the clerestory, is all clear glass set in painted metal frames.

Condition

The glazing is in good condition except one panel of glass that is cracked in the conference room.

Exterior Paving

Materials

The exterior paving around the Carney Office is painted concrete.

Condition

The concrete appears to be in good condition.

Flooring

Materials

The floors are integrally colored concrete.

Condition

The floors are in good condition.

Ceilings

Materials

Ceilings consist of painted steel framing and canvas panels.

Condition

The ceilings are generally in good condition. There is a small area of water staining on the ceiling next to the bathroom.

Lighting

Materials

Lighting consists of fluorescent fixtures in the wood coves below the clerestory and surface mounted fixtures in the bathroom.

Condition

The lighting is in good condition.

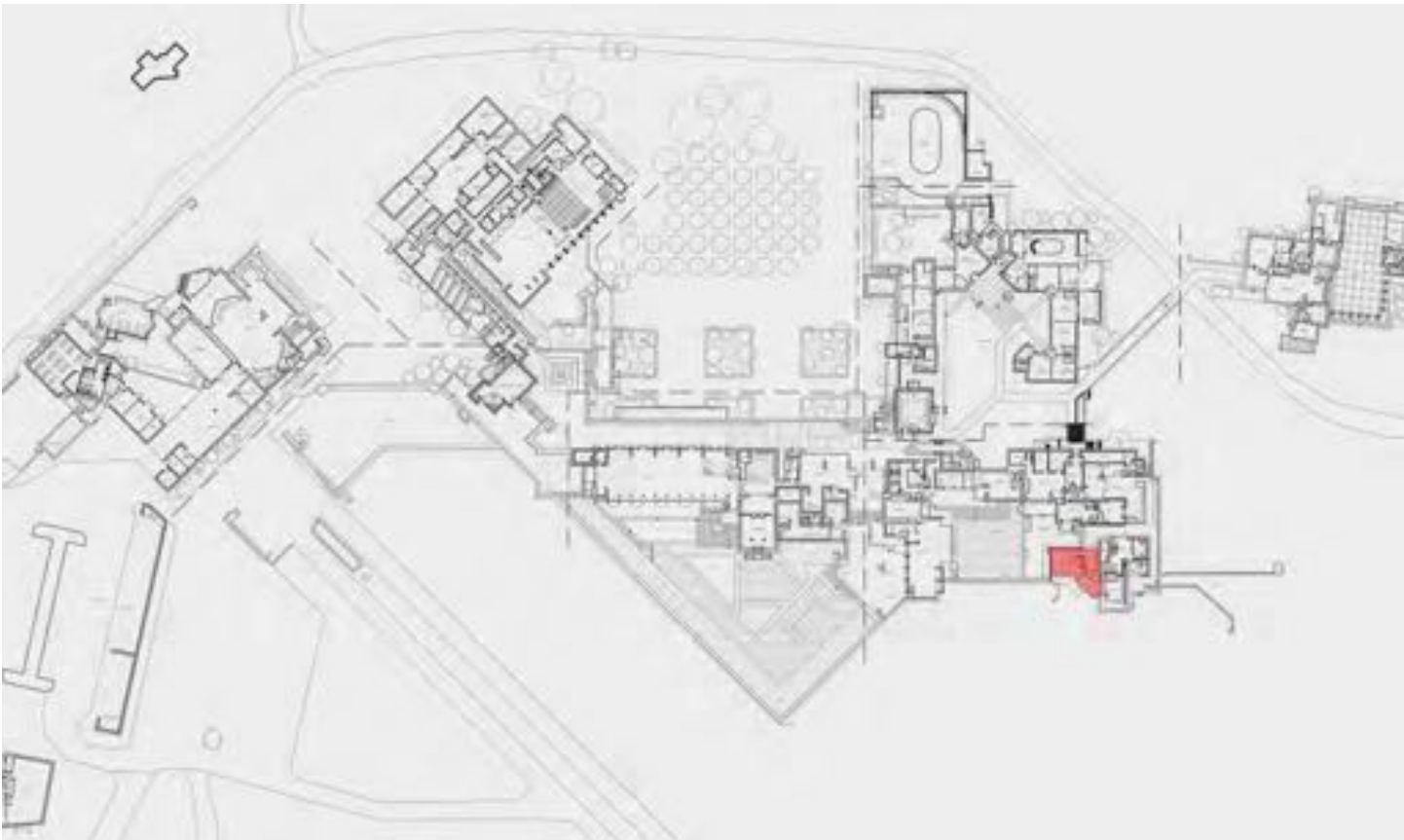


Figure 10-274 - Carney Office Location Plan

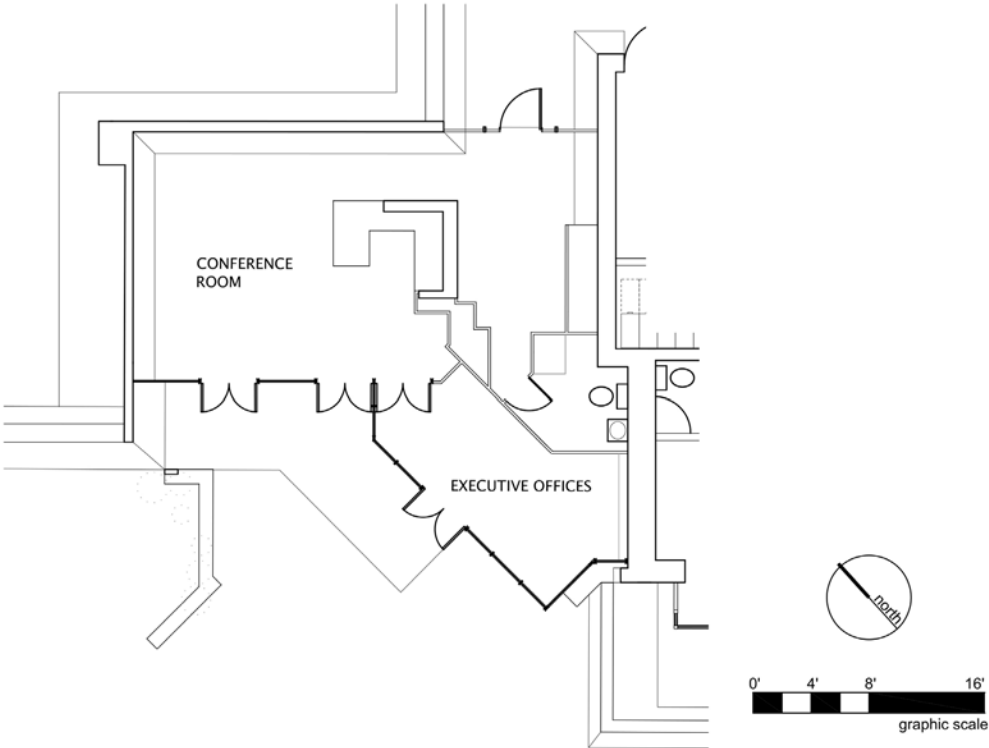


Figure 10-275 - Carney Office Floor Plan



Figure 10-276 - South facade of Carney Office, 2015 (Harboe Architects).



Figure 10-277 - Roof of Carney Office, 2015 (Harboe Architects).



Figure 10-278 - Interior of Carney Office, 2015 (Harboe Architects).



Figure 10-279 - Interior of Carney Office, 2015 (Harboe Architects).



Figure 10-280 - Interior of Carney Office, 2015 (Harboe Architects).



Figure 10-281 - Interior of Carney Office, 2015 (Harboe Architects).



Figure 10-282 - Carney Office showing water damage to wall and ceiling, 2015 (Harboe Architects).

TOWER OFFICE

Historic Significance

The Tower Office was constructed in the late 1970s for Olgivanna Lloyd Wright. It was later used as an apartment for Joe Fabris. Because it was constructed after the period of significance, the Tower Office has minor significance.

Level of Significance

Minor

Walls

Materials

The walls on the exterior of the Tower Office are a combination of desert masonry and painted plywood. The desert masonry walls date from the original construction in the 1970s. The interior walls are of combination of painted textured plaster on gypsum board and plywood panels with a resinous finish. There is 1"x1" ceramic tile on the wall in the bathroom shower.

Condition

The desert masonry walls are in good condition. The painted plywood walls are in fair condition. There is some damage on the south side of the building. Interior walls are in good condition.

Roofs

Materials

The existing roof is a plywood deck supported by steel structure. The deck is covered in foam insulation and a built-up, liquid applied membrane. The edge of the roof is covered with a painted metal fascia.

Condition

The membrane roof system is in poor condition. The membrane and foam are past their useful lives and need to be replaced. The plywood deck appears to be in good condition except for a couple areas where there are leaks. The paint finish on the metal fascia is worn and faded.

Soffits

Materials

The soffits are gypsum board.

Condition

The soffits are in poor condition. They have significant damage and need to be replaced.

Doors

Materials

The main entry door and the bathroom door are both solid core flush wood doors with a resinous finish. The main entry door looks relatively new. The door that accesses the terrace is a glass and painted metal door with a painted metal frames. This door appears to be original.

Condition

The wood doors are in good condition. There are a few scratches and nicks. The glass and painted metal door is in fair condition. The paint is worn and faded and there is some surface corrosion on the door and hinges. There are also holes from abandoned lockset locations.

Glazing

Materials

The glazing is all clear glass set in painted metal frames. Windows are a combination of operable casement and slider windows and fixed windows.

Condition

The glazing appears to be in good condition.

Terrace

Materials

The terrace has ceramic tile paving, desert masonry walls, and a painted metal railing with inset pieces of triangular shaped colored glass.

Condition

The tile is in fair/poor condition. Many of the tiles are cracked and damaged. The desert masonry is in good condition. The metal railings are in fair condition. The paint finish is worn and there is some minor surface corrosion.

Flooring

Materials

The floor in the main office space is a wood parquet with a herringbone pattern. In the loft area there is carpet and in the bathroom the floor is 1"x1" ceramic tile.

Condition

The flooring is in good condition.

Ceilings

Materials

Ceilings throughout are painted textured plaster on gypsum board.

Condition

The ceilings are generally in good condition. There is one area of water damage above the closet on the northeast side of the office.

Millwork

Materials

The millwork consists of wood trim, built-in wood veneer cabinets and shelves, and wood veneer paneling,

Condition

The millwork is in good condition with a few minor scratches and nicks.

Kitchenette

Materials

The kitchenette has a ceramic tile counter, wood veneer cabinets, and a stainless steel sink.

Condition

The kitchenette is in good condition.

Lighting

Materials

Lighting consists of recessed fixtures with acrylic lenses located in the perimeter soffit.

Condition

The lighting is generally in good condition.

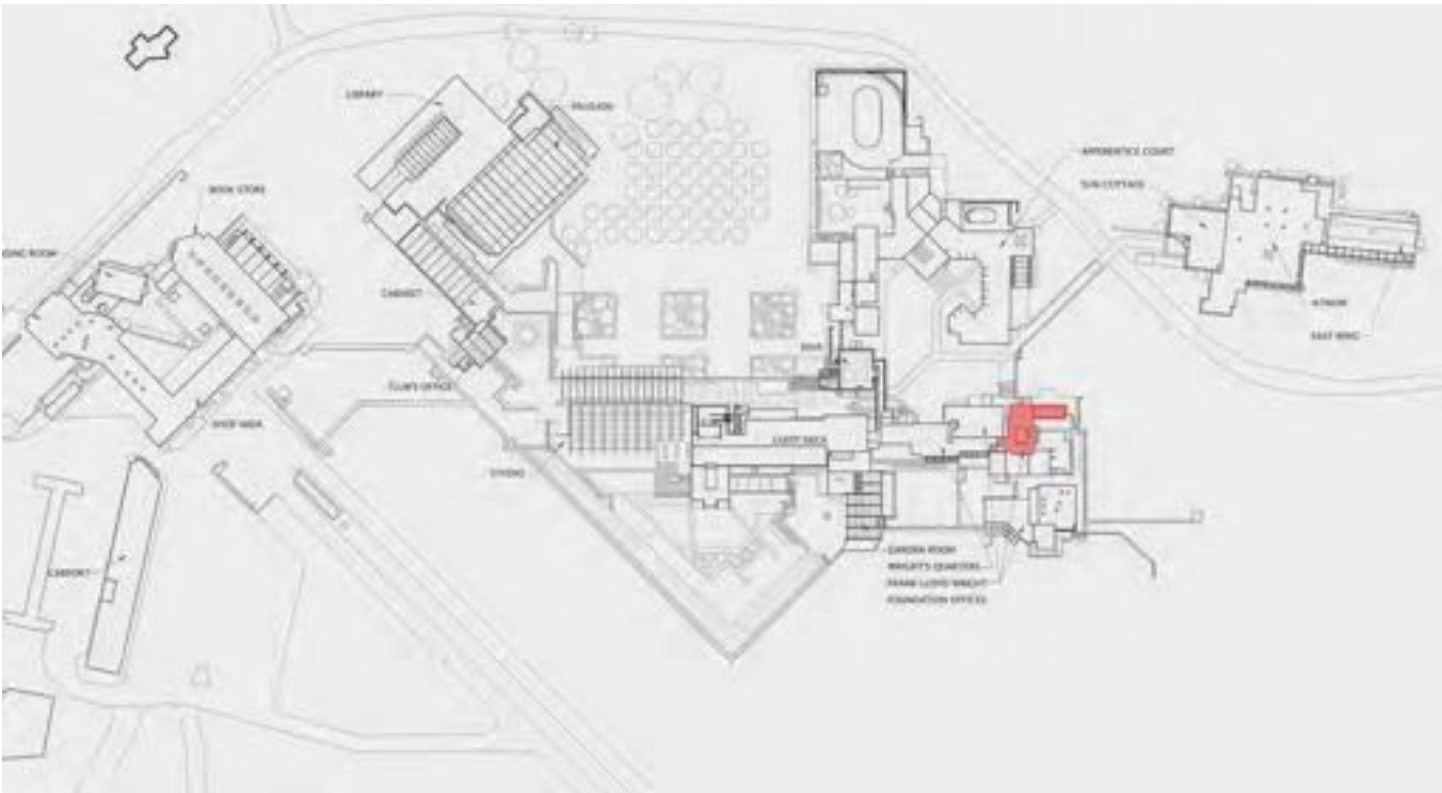


Figure 10-283 - Tower Office Location Plan

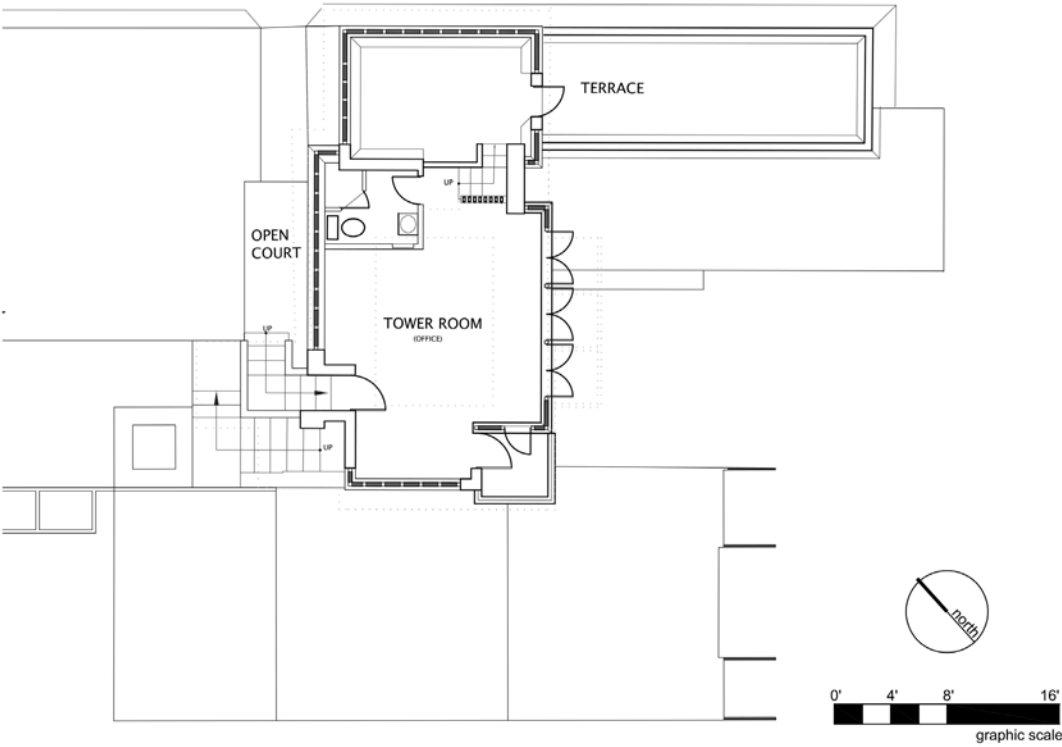


Figure 10-284 - Tower Office Floor Plan



Figure 10-285 - Looking northeast at Tower Office, 2015 (Harboe Architects).



Figure 10-286 - Looking west at Tower Office, 2015 (Harboe Architects).



Figure 10-287 - View of the Tower Office terrace from the courtyard outside Dekoven Hill Office, 2015 (Harboe Architects).



Figure 10-288 - Damage to soffit on Tower Office, 2015 (Harboe Architects).



Figure 10-289 - Tower Office terrace, 2015 (Harboe Architects).



Figure 10-290 - View of the outside of the Tower Office from terrace, 2015 (Harboe Architects).



Figure 10-291 - Loft area in Tower Office, 2015 (Harboe Architects).



Figure 10-292 - Tower Office bathroom, 2015 (Harboe Architects).



Figure 10-293 - Tower Office interior, 2015 (Harboe Architects).



Figure 10-294 - Built-in cabinets with windows above in Tower Office, 2015 (Harboe Architects).



Figure 10-295 - Windows along east wall of Tower Office, 2015 (Harboe Architects).

BOOKSTORE

Historic Significance

The Bookstore was constructed in 1985 to accommodate the tourists that visit the site. Because it was constructed after the period of significance, the Bookstore has minor significance.

Level of Significance

Minor

Walls

Materials

Exterior walls on the bookstore are primarily constructed of desert masonry. There is a section of wall on the west side of the bookstore around the door to the shops that is 1x2 wood lap siding.

Condition

The desert masonry is in good condition. The painted wood siding is in fair condition. The paint is faded and some of the boards are cracked.

Roofs

Materials

The roof deck is made up of wood tongue and groove boards. There is a foam roof over the main part of the store and bathrooms. There is a shed roof addition on the east side of the bookstore that is made up of SIP panels on glulam beams. The roof system is a liquid applied membrane.

Condition

The roof is in good condition. There are some locations where it is delaminating from the glulam beams.

Doors

Materials

The main entry doors are 1/4" glass doors with an aluminum head and foot. Additional exterior doors are solid core wood doors with oak veneer. Interior doors are solid core wood with hollow metal frames.

Condition

All doors throughout the bookstore appear to be in good condition.

Glazing

Materials

The glazing in the bookstore is 1/4" butt glazed, tempered glass. In the bookstore office is 1/4" glass set in custom painted wood frames.

Condition

The glazing is in good condition.

Interior Partitions

Materials

Interior partitions in the bookstore consists of desert masonry walls, gypsum board on wood frames, and slat board on the retail walls for product display.

Condition

The interior partitions are in good condition.

Ceilings

Materials

The ceiling inside the bookstore is the exposed wood structure and underside of the tongue and groove wood decking. There is a gypsum board soffit around the perimeter of the space. The ceiling under the shed roof addition is tongue and groove with a transparent stain.

Condition

The ceilings in the bookstore are in good condition.

Flooring

Materials

The flooring is red integrally colored concrete divided into 4' x 4' panels with trowelled joints.

Condition

The flooring is in good condition.

Millwork

Materials

The millwork consists of built-in counters with laminate boxes and tops. The counters have wood trim at the edge and the sides are covered with wood veneer panels. There are also wood veneer cabinets, and decorative oak trim at the soffits.

Condition

The millwork is in good condition.

Lighting

Materials

Lighting in the bookstore consists of track lighting, 6" can lights, and 48" double fluorescent tube lights in the light shelf above the soffit.

Condition

The track lighting and cans are in good condition. The fluorescent lights are in fair condition. The ballasts need to be replaced.

Toilet Rooms

Materials

The walls are gypsum board on wood frames. Some of the walls are painted and some have 4x4 ceramic tile. The floors are integrally colored concrete and toilet partitions are painted steel. The lavatories are Corian and the toilet fixtures are white ceramic. There is oak trim at the soffits in the toilet rooms.

Condition

The fixtures and finishes in the men's and women's toilet rooms are in good condition.

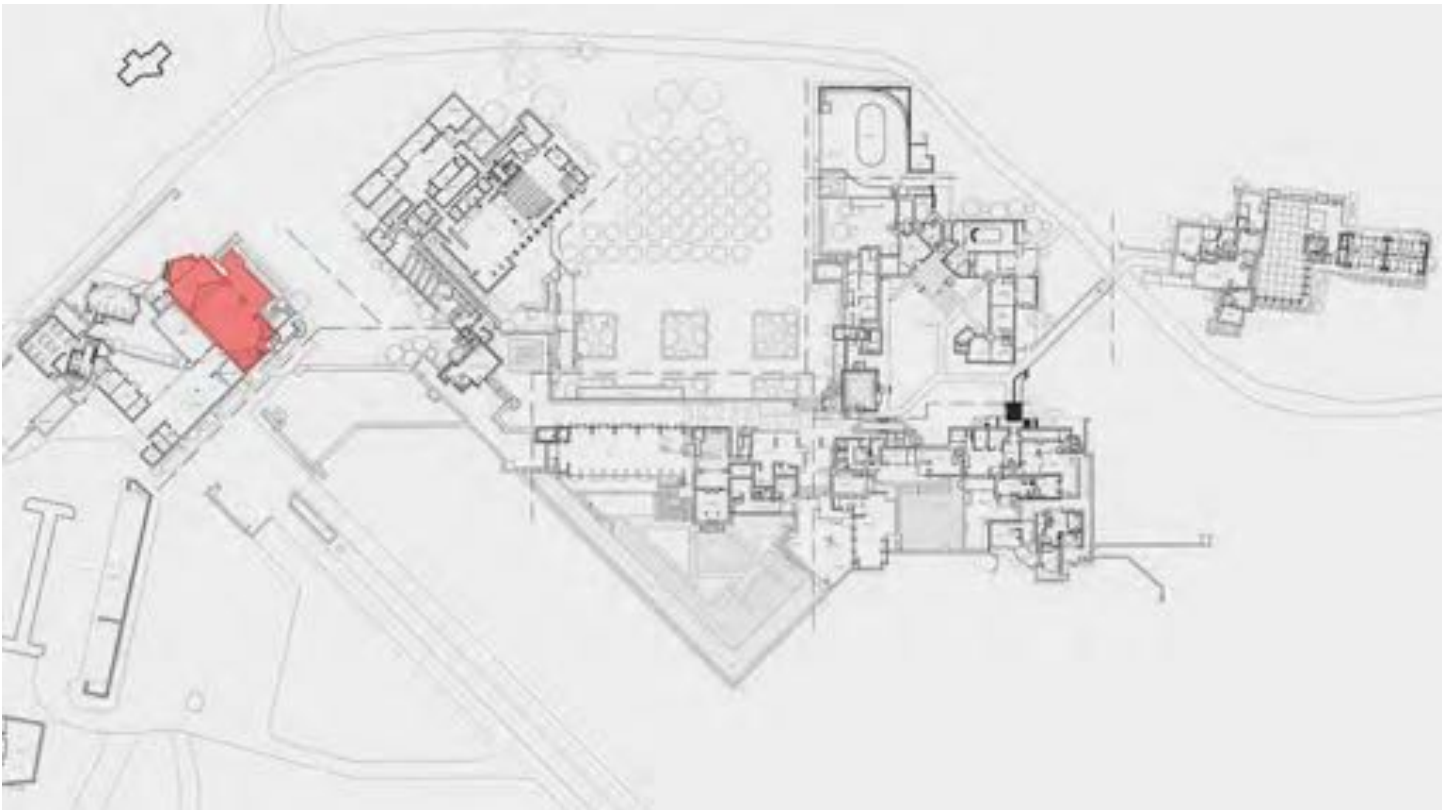


Figure 10-296 - Bookstore Location Plan

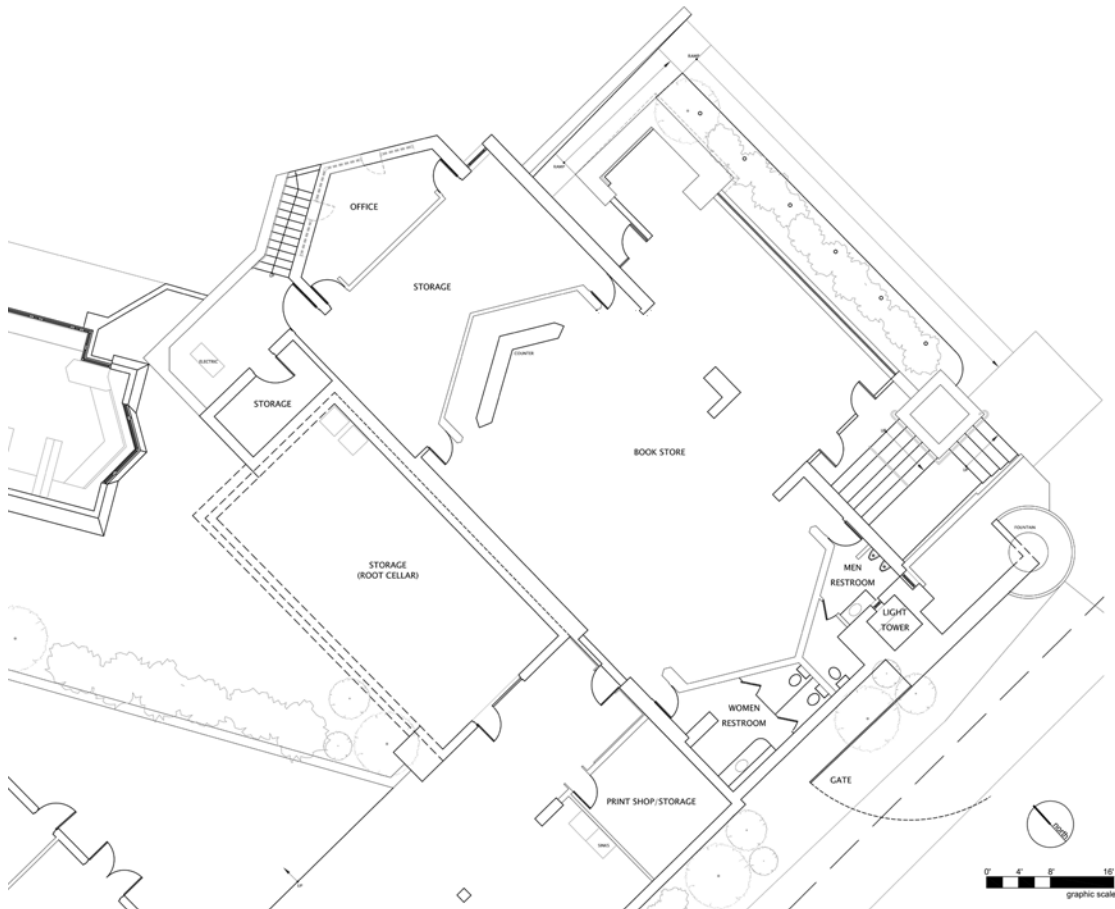


Figure 10-297 - Bookstore Floor Plan



Figure 10-298 - Desert masonry wall outside of the Bookstore (Fred Prozzillo).



Figure 10-299 - Lap board siding and wood door on west side of Bookstore (Fred Prozzillo).



Figure 10-300 - Bookstore roof (Fred Prozzillo).



Figure 10-301 - Shed roof addition on Bookstore (Fred Prozzillo).



Figure 10-302 - Glass doors at entry to Bookstore (Fred Prozzillo).



Figure 10-303 - Bookstore glazing (Fred Prozzillo).



Figure 10-304 - Interior door in Bookstore (Fred Prozzillo).



Figure 10-305 - Bookstore ceiling (Fred Prozzillo).



Figure 10-306 - Interior of Bookstore showing retail displays and lighting (Fred Prozzillo).



Figure 10-307 - Interior of Bookstore showing floor and counters (Fred Prozzillo).

LANDSCAPE

Historic Significance

The Landscape is crucial at Taliesin West. Frank Lloyd Wright designed the buildings and landscape to be integral.

Level of Significance

Primary

Walls

Materials

The walls are constructed of desert masonry. The desert masonry consists of local desert stones collected near Taliesin West that are set in a dry concrete mix. The desert masonry walls date from the original construction beginning in the late 1930s.

Condition

The desert masonry walls are in good condition.

Paving

Materials

The paving is comprised of floated concrete configured in panels that are separated by 2-1/2" mortar joints. The mortar joints originally had exposed small stone aggregate. Some original joints are still present while others have been replaced.

Condition

The paving is in poor to fair condition. There are cracks in many of the concrete panels and many of the mortar joints do not contain their original mortar. Some of the concrete panels have heaved causing tripping hazards. The finish on the painted concrete is significantly worn and faded.

Plantings

Materials

There are a number of different species of plants and shrubs, as well as cacti, at Taliesin West. In the early years (1938-45), there were few plantings, all of which were native to the Arizona desert. By the 1960s, there were more tropical plantings, such as palm trees. In 2014 the landscaping includes both native and foreign species of plants as well as irrigated areas of grass.

Condition

In many areas the plantings are overgrown.

Water Features

Materials

There are multiple fountains and water features throughout the Taliesin West grounds including the fountain outside the Cabaret, the fountain next to the Light Tower, the triangular pool at the Prow, and the small pool outside the Kiva.

Condition

The water features appear to be in good condition.

Petroglyphs

Materials

The petroglyphs were discovered on the hills behind Taliesin West in the first few years that Wright and the fellows established the camp. Wright had the boulders with the ancient Petroglyphs placed in strategic places throughout the site. The petroglyphs still stand in key locations today.

Condition

The petroglyphs appear to be in good condition.

Art Objects & Sculptures

Materials

There are many art objects and sculptures placed in key locations throughout the site, many of which were purchased and placed under the direction of Frank Lloyd Wright including the painted ceramic Chinese theater scenes. Many of these have been moved to different locations since Wright died in 1959.

Condition

Many of the art objects are in poor condition and require conservation.

Whitman Square

Materials

The Whitman Square was added near the entrance to Taliesin West in the 1940s. It is a concrete slab painted red with a quote by Walt Whitman in gold.

Condition

The Whitman Square is significantly deteriorated and has major cracks in the concrete. The red paint finish is worn and gold lettering is faded.



Figure 10-308 - Landscape Plan



Figure 10-309 - Paved area between the office and Drafting Studio, 2014 (Harboe Architects).



Figure 10-310 - Paved walkway on northwest side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-311 - Sunset Terrace, 2014 (Harboe Architects).



Figure 10-312 - Sunset Terrace, 2014 (Harboe Architects).



Figure 10-313 - Damaged concrete paving on north side of living quarters, 2014 (Harboe Architects).



Figure 10-314 - Damaged concrete paving on north side of Studio, 2014 (Harboe Architects).



Figure 10-315 - Apprentice Court showing damaged pavers, 2014 (Harboe Architects).



Figure 10-316 - Garden wall with moon gate, 2014 (Harboe Architects).



Figure 10-317 - Entry drive, 2014 (Harboe Architects).



Figure 10-318 - Prow, 2014 (Harboe Architects).



Figure 10-319 - Triangular pool on south side of Drafting Studio, 2014 (Harboe Architects).



Figure 10-320 - Fountain in court outside of Office and Cabaret, 2014 (Harboe Architects).

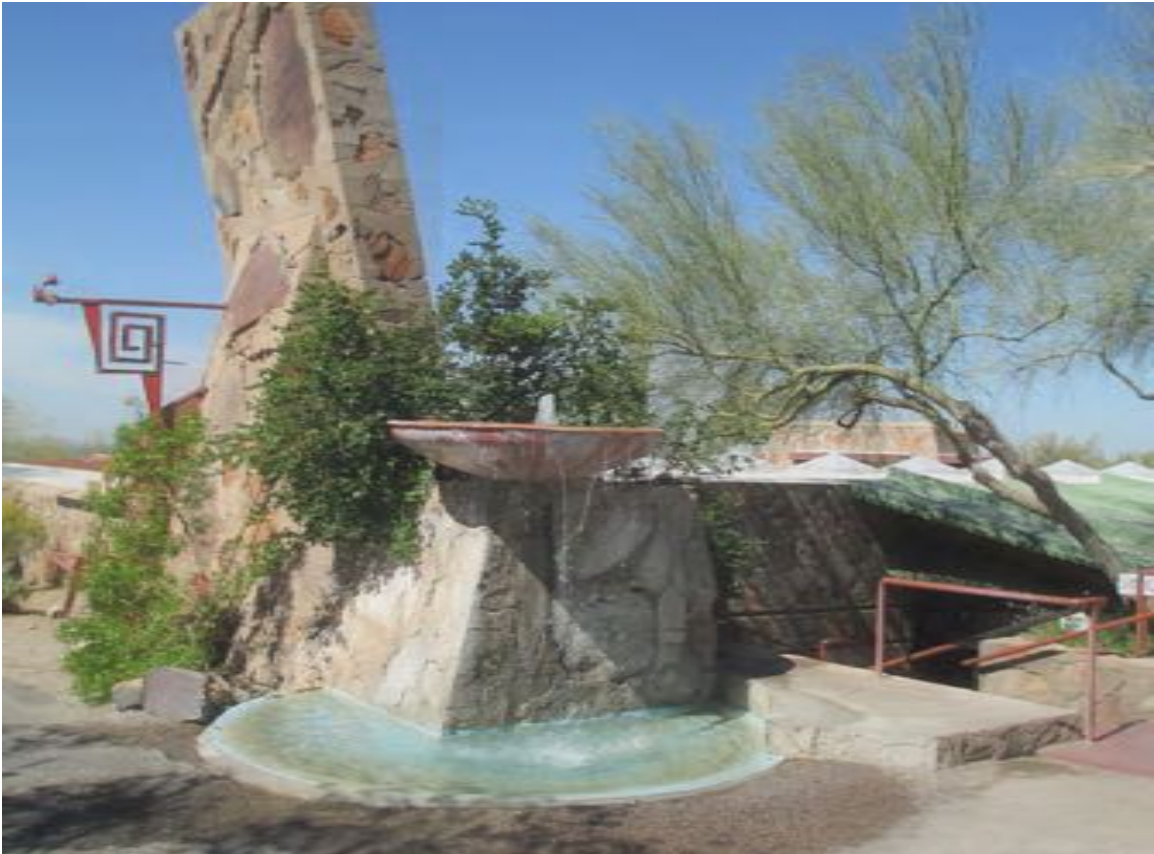


Figure 10-321 - Light Tower Fountain, 2014 (Harboe Architects).



Figure 10-322 - Small pool under Kiva Bridge, 2014 (Harboe Architects).



Figure 10-323 - Petroglyph, 2014 (Harboe Architects).



Figure 10-324 - Ceramic Chinese gateway piece, 2014 (Harboe Architects).



Figure 10-325 - Svetlana Peters Memorial on Sunset Terrace, 2015 (Harboe Architects).



Figure 10-326 - Whitman Square, 2014 (Harboe Architects).

11. RECOMMENDED SCOPE OF WORK

The following proposed scope of work outlines what would be required to restore Taliesin West to the period of significance (1938-1959) as defined in the Preservation Philosophy and Approach. Recommendations are also included for the renovation of buildings on the site that are in the historic core but were designed and constructed after the period of significance. The scope of work has been formed to facilitate the development of an estimated magnitude of costs for future restoration projects. It is based on the information collected through preliminary research and an onsite survey of the Taliesin West buildings and grounds. While thorough, the research and site survey conducted for the Preservation Master Plan is not exhaustive and scope items may change as further in-depth research, assessments, and analyses are executed for individual buildings.

Although the following scope of work suggests restoring the building components and site features back to their appearance in 1959 based on the Preservation Philosophy and Approach, for Frank Lloyd Wright's Office, the Drafting Studio, the Original Dining Room, the Garden Room and the Living Quarters there are several options to be considered for defining the period of restoration. These options range from the period when the building components were first designed and completed by Wright (1938-40) to his death in 1959, which incorporates all of the changes made throughout his lifetime. A full understanding of the period of restoration will require taking into account all findings in future studies and analyses, including the Cultural Landscape Report, Historic Structures Reports for the individual building components, and the Interpretive Plan for the site.

The magnitude of estimated costs for the restoration scope items in this report is based on a restoration period of 1959. This is likely to result in a more expensive restoration treatment option because it will require significant reconstruction of the roof systems as well as substantial mechanical and electrical upgrades. Using the most expensive option to identify the magnitude of estimated costs will provide for sufficient cost estimates for all other possible options depending on the restoration period selected.

The Recommended Scope of Work only identifies the estimated quantities of work. A more detailed description of the existing materials and their existing condition, and integrity is included in the Condition Assessment section of the Preservation Master Plan.

Recommendations strive to retain and preserve as much original building fabric as possible. All recommendations follow the *Secretary of Interior Standards for Restoration* which are as follows:

1. *A property will be used as it was historically or be given a new use which reflects the property's restoration period.*
2. *Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.*
3. *Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.*
4. *Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.*
5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.*

6. *Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.*
7. *Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.*
8. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*
9. *Archaeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*
10. *Designs that were never executed historically will not be constructed.*

PHASING

The restoration of the building components and landscapes at Taliesin West will be a major undertaking requiring extensive construction work. It is highly recommended that some of the scope items precede others, such as performing roof work prior to restoring interior finishes. Construction work will be disruptive to the users of the spaces and will require that portions of, or entire building components, will need to be vacated during construction. A phased construction process is recommended to best preserve the historic fabric of the building components; minimize costs by scheduling the work in a logical progression; minimize disruption to the occupants; and allow for phased construction in a collection of smaller construction contracts. If funding becomes available, multiple phases could be combined into larger construction projects. See Chapter 12, Prioritization of Work, for more information regarding the phasing and prioritization of work at Taliesin West.



Figure 11-1 - Aerial view of Taliesin West, 1959 (Pedro Guerrero).

SCOPE OF WORK

The following recommended scope of work is organized by building component. The order listed below does not indicate the priority in which each building component should be restored.

OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof Framing
The non-historic deteriorated wood members that make up the existing roof trusses should be replaced with new wood members. All new wood should be painted to match the 1959 finish of the wood. Paint finish analysis should be performed to identify the chronology, material properties & appearance of the early coatings. An appropriate coating system and recommended frequency for application should be identified. The metal fitch plates and gutters are from the period of significance and should be preserved where possible. Metal fitch plates are to be prepared and painted prior to the installation of the new wood members.
- Roof Surface
The non-historic existing acrylic roof system is to be removed. A new roof system made up of fabric panels is to be installed. The new panels are to match the dimensions, scale, and appearance of the panels that were in place upon Wright's death in 1959. More research as well as full scale mock ups will be required to determine a proper fabric for the roof panels.
The flat membrane roofs on the west side of the office are to be removed. The plywood substrate is to be replaced with new plywood and a new membrane is to be installed on top of the plywood. All wood framing and trim at the eaves is to be stripped and repainted to match the paint color used prior to Wright's death in 1959 as determined by the finish analysis.
- Glazing
All of the glazing and metal framing is to be carefully documented, disassembled and salvaged. After the glazing is removed the metal frames are to be stripped, any corrosion is to be removed, and the frames are to be repainted. The glass and restored frames are to be reinstalled in place following restoration of the roof framing and floors. The glazing between the small outer court and the office is to be recreated to match the configuration of the glazed wall and door that existed prior to Wright's death in 1959.
- Doors
The metal and glass door and frame on the southwest side of the Office is to be removed in order to restore the opening to its 1959 appearance. The door on the southeast side of the Office is to be carefully removed, repainted, and reinstalled in its current location.
- Sunshades
The wood sunshades with the white and gold painted checker board pattern are to be removed and new shades constructed of canvas stretched over wood frames are to be installed. The new canvas shades should match the size and checker board pattern of those that were mounted on the office prior to Wright's death in 1959. The decorative wood elements that support the sunshades are to remain.
- Architectural Accent Lighting
The accent lighting is to be redesigned and replaced.

Interior Scope

- Desert Masonry

All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.

- Concrete Floor

Remove all 2-inch wide mortar joints and replace with new mortar with exposed aggregate to match the existing mortar joints in the Drafting Studio. Provide localized repairs at areas of damaged concrete. Refinish the concrete floor to match the configuration, color and appearance of the 1959 floor in the Office. The paint treatment of the floor needs to be verified with further research.

- Fire Protection

It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Wood identification: 1 sample
- Finishes (wood, interior & exterior): 4 samples
- Masonry/mortar analysis: 1 sample



Figure 11-2 - Office Location Plan

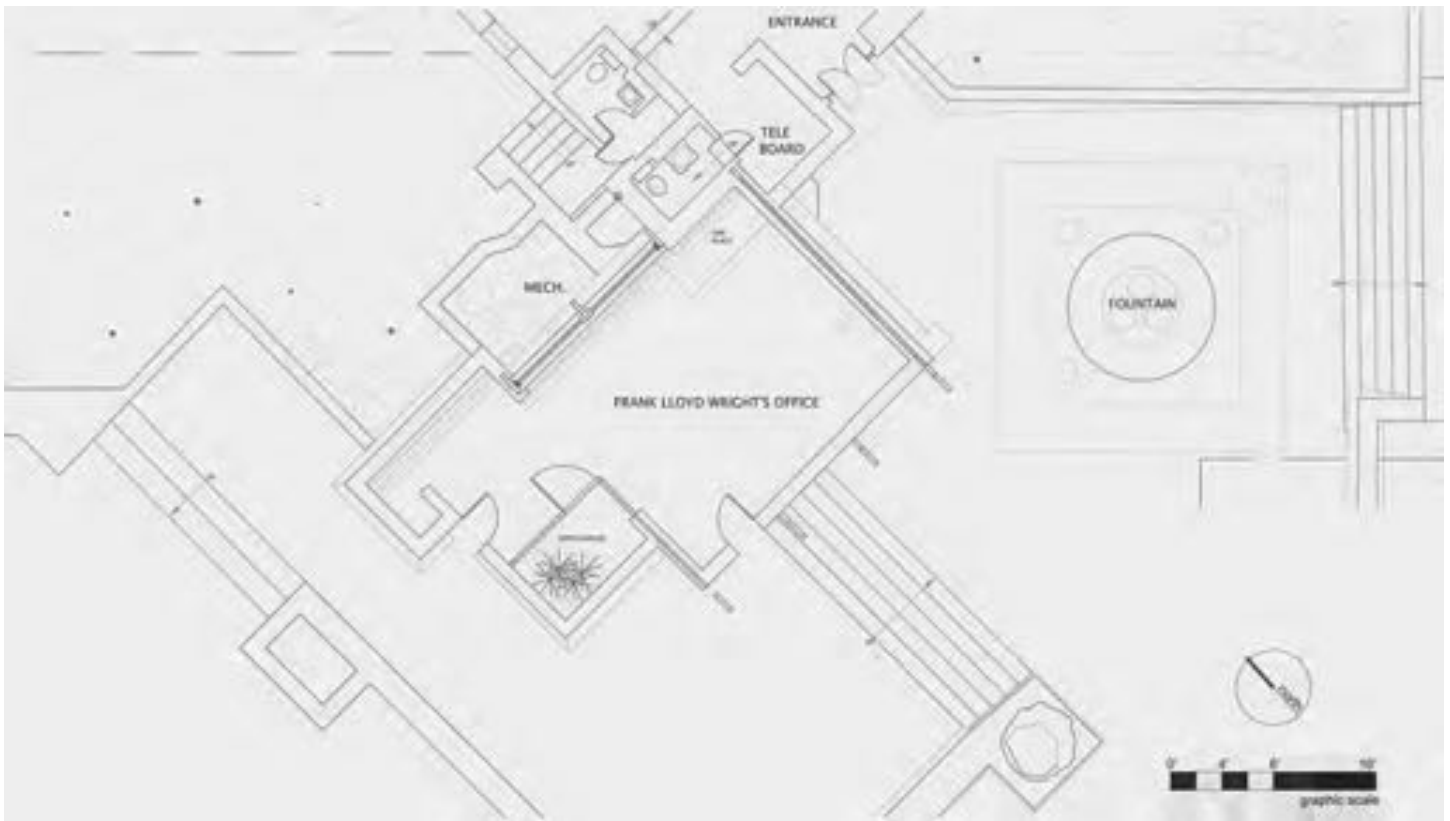


Figure 11-3 - Office Floor Plan



Figure 11-4 - Aerial view of Office, 1959 (Pedro Guerrero).

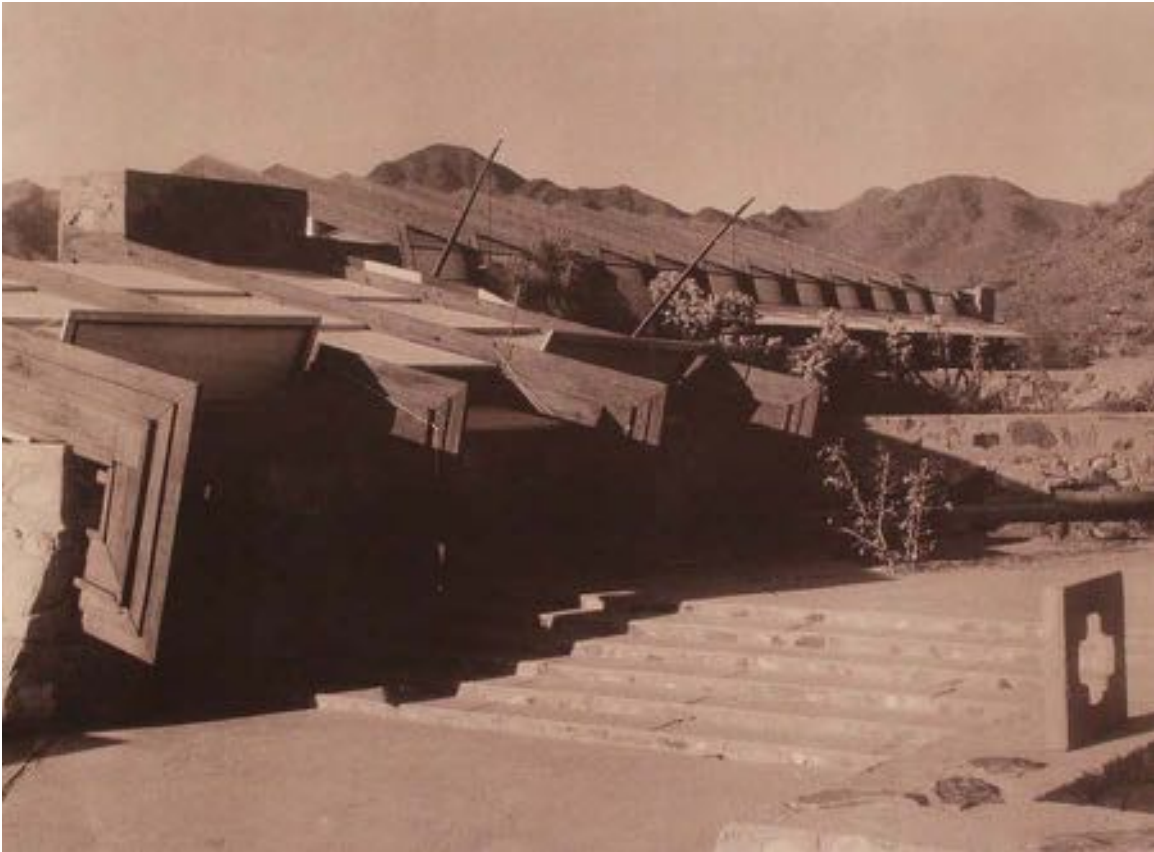


Figure 11-5 - South side of the office ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-6 - South side of office ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-7 - South side of the office in 2014 (Harboe Architects).



Figure 11-8 - Southwest side of the office in 2014 (Harboe Architects).



Figure 11-9 - Roof trusses on the office in 2014 (Harboe Architects).



Figure 11-10 - North clerestory windows and roof on the office in 2014 (Harboe Architects).



Figure 11-11 - Interior of the office looking east, 2014 (Harboe Architects).



Figure 11-12 - Interior of the office looking west, 2014 (Harboe Architects).

DRAFTING STUDIO

Exterior Scope

- Desert Masonry (includes vault)
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof Structure
The non-historic deteriorated wood members that make up the existing roof trusses should be replaced with new wood members. All new wood should be painted to match the 1959 finish of the wood. Paint finish analysis should be performed to identify the chronology, material properties & appearance of the early coatings. An appropriate coating system and recommended frequency for application should be identified. The metal fitch plates and gutters are from the period of significance and should be preserved where possible. Metal fitch plates are to be prepared and painted prior to the installation of the new wood members.
- Roof Surface
The non-historic existing acrylic roof system is to be removed. A new roof system made up of fabric panels is to be installed. The new panels are to match the dimensions, scale, and appearance of the panels that were in place upon Wright's death in 1959. More research as well as full scale mock ups will be required to determine a proper fabric for the roof panels.
The flat membrane roof over the solarium on the southeast side of the Studio is to be removed including the plywood substrate. A new plywood substrate and membrane roof is to be installed. All wood framing and trim at the eaves is to be stripped and repainted to match the paint color used prior to Wright's death in 1959 as determined by the finish analysis.
- Glazing
All of the glazing and metal framing is to be carefully documented, disassembled and salvaged. After the glazing is removed the metal frames are to be stripped, any corrosion is to be removed, and the frames are to be repainted. The glass and restored frames are to be reinstalled in place following restoration of the roofs. The clerestory windows on the north side of the studio are to be replaced with windows that have operable hoppers at the bottom (similar to the windows that existed just prior to Wright's death in 1959).
- Doors
The painted wood doors on the north side of the Studio are to be carefully removed, repainted, and reinstalled in their current locations.
- Sunshades
The wood sunshade with the white and gold painted checker board pattern on the west side of the Studio is to be removed and a new shade constructed of canvas stretched over a wood frame is to be installed. The new canvas shade should match the size and checker board pattern of the shade that was in the same location prior to Wright's death in 1959. The decorative wood elements that support the sunshades are to remain.
- Pergola
The pergola on the north side of the studio is to be prepared and painted. The paint color is to match the color of the adjacent roof structure on the Studio as determined by the finish analysis.
- Architectural Accent Lighting
The accent lighting is to be redesigned and replaced.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.

- Concrete Floor
Restore the concrete floor to the 1959 appearance. This will involve patching as well as some larger areas of replacement. Analysis of the original concrete and mortar should be conducted to identify the physical properties and mix designs for both localized repairs and large scale replacement. Mock-ups to replicate the original flooring should be prepared and materials & processes well documented.
- Millwork
Restore the termite damaged layout table and shelving along the southwest wall. All damaged sections are to be removed and replaced. All square stock trim is to be replaced with new half-round trim.
- Lighting
Restore the lighting to the 1959 appearance. The wood pendant lights are to be restored and the wiring should be removed and rewired to meet current UL standards. The concealed fluorescent lighting with egg crate diffusers at the soffits over the north doors should be removed.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Wood identification: 1 sample
- Finishes analysis (wood, interior & exterior): 4 samples
- Masonry/mortar analysis: 1 sample
- Floor composition (slab & joint): 2 samples
- Floor finish: 1 sample
- Floor finishes removal tests: 1 location



Figure 11-13 - Drafting Studio Location Plan

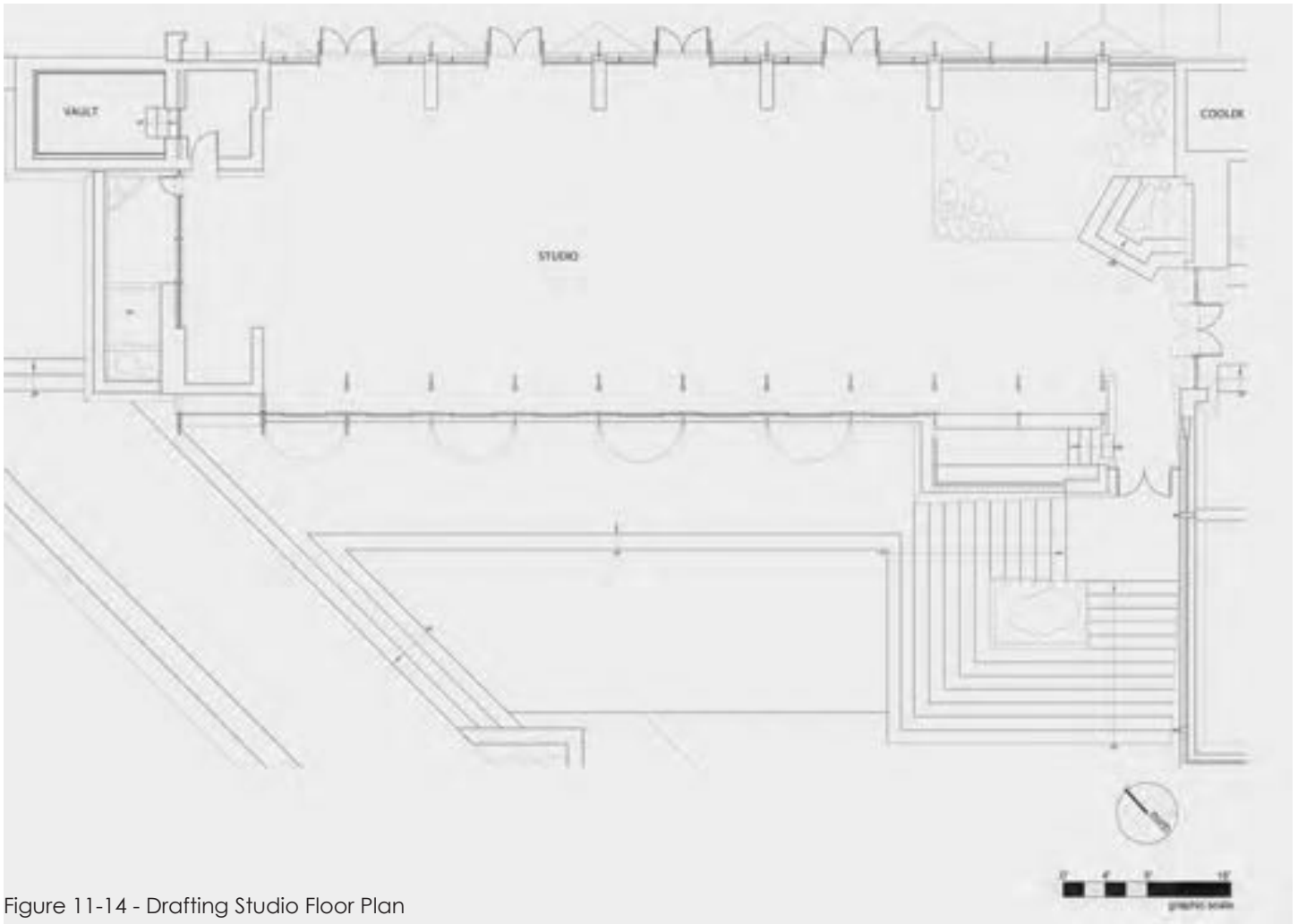


Figure 11-14 - Drafting Studio Floor Plan



Figure 11-15 - Drafting Studio ca. 1960 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-16 - Aerial view of Drafting Studio ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

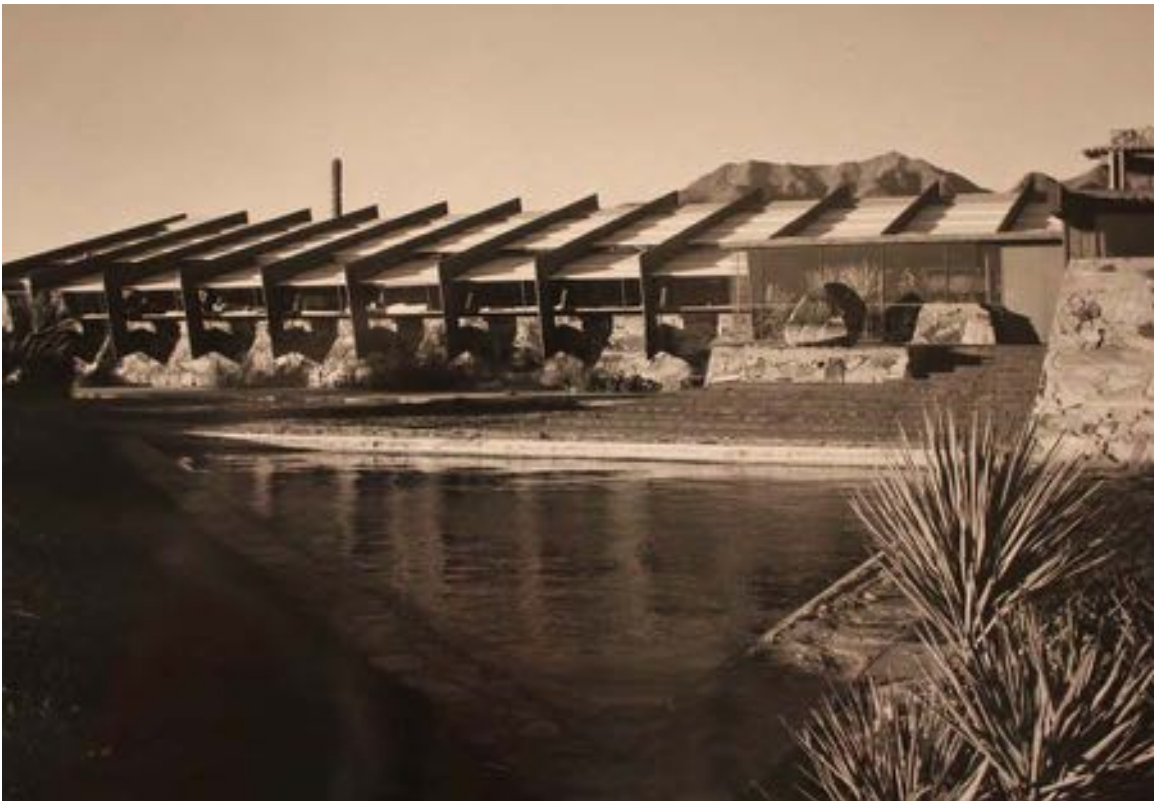


Figure 11-17 - View of south side of Drafting Studio ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-18 - Frank Lloyd Wright surrounded by apprentices in Drafting Studio ca. 1957 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-19 - Looking west at Frank Lloyd Wright in Drafting Studio ca. 1957 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-20 - Southeast side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-21 - Solarium and terrace on southeast side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-22 - Roof on Drafting Studio, 2014 (Harboe Architects).



Figure 11-23 - Northwest side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-24 - Sunshade and decorative wood pinnacles, 2014 (Harboe Architects).



Figure 11-25 - Interior of Drafting Studio looking northwest, 2014 (Harboe Architects).



Figure 11-26 - Interior of Drafting Studio looking southeast, 2014 (Harboe Architects).



Figure 11-27 - Interior of Drafting Studio looking south, 2014 (Harboe Architects).

KITCHEN

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
Replace the existing roofing membrane with a new liquid applied membrane.
The existing concrete roof deck is to be replaced with a new reinforced concrete deck. A more extensive structural analysis of the condition of the roof deck should be conducted to determine the extent of damage prior to replacement of the deck.
- Glazing
All existing clerestory windows are to remain.
- Bell Tower
The steel structure of the bell tower is to be prepared and painted to match the color determined by the finish analysis.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Concrete Floor
Restore the concrete floor to the 1959 appearance. This will involve patching as well as some larger areas of replacement. Analysis of the original concrete and mortar should be conducted to identify the physical properties and mix designs for both localized repairs and large scale replacement. Mock-ups to replicate the original flooring should be prepared and materials & processes well documented.
- Glazing
The glazing between the Studio and Kitchen is to be retained.
- Ceiling
The gypsum coated foam ceiling is to be removed and replaced with a new plaster ceiling. The new ceiling is to be textured and painted to match the ceiling condition during the period of significance.
- Beams
The wood clad steel beams in the kitchen are to be prepared and painted. The paint color is to be determined by the finish analysis.
- Lighting
The lighting in the Kitchen is to be redesigned and replaced.
- Counter/Sink
Reconfigure the counter and sink along the southwest wall of the kitchen to accommodate new MEP system for the Board Room.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None



Figure 11-28 - Kitchen Location Plan

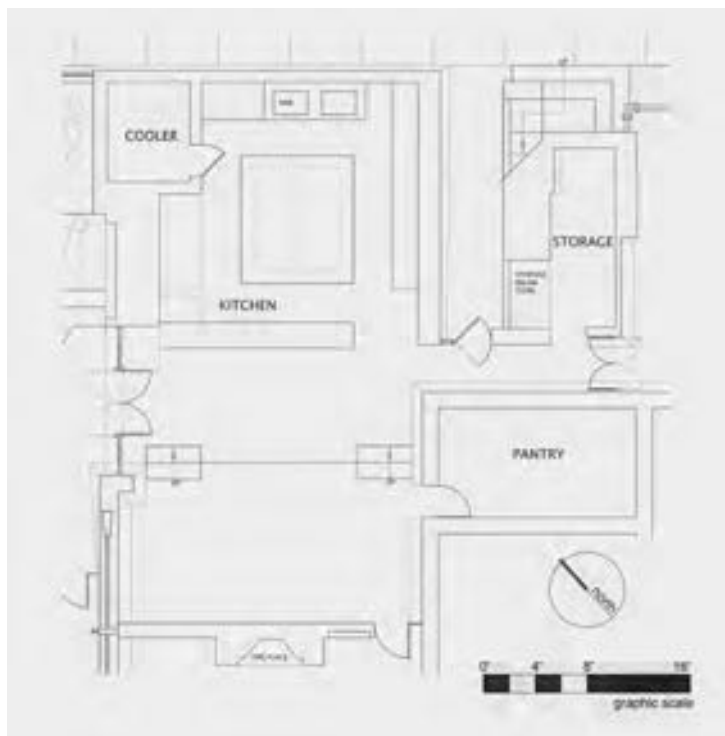


Figure 11-29 - Kitchen Floor Plan



Figure 11-30 - Looking down into Kitchen from clerestory windows , ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-31 - Interior view of the Kitchen , ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-32 - Interior of Kitchen looking north, 2014 (Harboe Architects).



Figure 11-33 - Interior of Kitchen looking up at clerestory windows, 2014 (Harboe Architects).



Figure 11-34 - Interior of Kitchen looking northwest, 2014 (Harboe Architects).



Figure 11-35 - Bell Tower, 2014 (Harboe Architects).

ORIGINAL DINING ROOM (BOARD ROOM)

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof Structure
Wood framing and light weight concrete decking is to be preserved where possible. Structural engineering analysis should be conducted on the wood roof framing members and concrete decking to gain a better understanding of their condition and ability to support the roof load. Concealed supplemental reinforcing should be added if needed. It may be necessary to carefully dismantle the wood framing and reassemble the historic wood elements supplemented with new wood where the existing wood is deteriorated. New wood elements are to match the existing wood in species, grain, and texture.
- Roof Surface
Replace the existing roofing membrane with a new liquid applied membrane.
- Skylight
Remove the non-historic existing fiberglass panels at the skylight. Install a new skylight with clear glass panels and painted wood frame to match the skylight that existed in this location in 1959. The skylight design will be based on historic photographs.
- Glazing
Replace broken, cracked and missing glass at clerestory windows. New glass is to match the existing in thickness and appearance.
Remove the non-historic mirrored glass and provide new clear glass at the east clerestory adjacent to the roof of the William Wesley Peters (WWP) Conference Room (requires the removal of the roof and enclosure for the WWP Conference Room).
- Decorative Wood Elements
Recreate missing wood detail and elements on the "icicles" hanging from the projecting beams on the south side of the Original Dining Room.

Interior Scope

- Concrete Floor
Restore the concrete floor to the 1959 appearance. This will involve patching as well as some larger areas of replacement. Analysis of the original concrete and mortar should be conducted to identify the physical properties and mix designs for both localized repairs and large scale replacement. Mock-ups to replicate the original flooring should be prepared and materials & processes well documented. The mortar joints that have been patched over should be replaced to replicate the original joints with the small stone aggregate. Following all repairs to the floor, it should be repainted to match the red color of the existing floor. Multiple paint systems should be mocked up to determine the appropriate coating for both texture and appearance and durability.
- Millwork
Interior wood trim is to be preserved. Any damaged or missing trim is to be replaced with new trim to match the species, cut, and profile of the existing adjacent trim.
The plywood panel with the decorative painted pattern by Gene Masselink to the west side of the fireplace is to be conserved. It is recommended that an art conservator conduct an assessment of the panel to determine the exact scope required.
- Ceiling
Remove the non-historic plywood panels at the ceiling on either side of the skylight. Provide new white canvas at these locations. New canvas is to closely match the appearance, color and texture of the historic canvas in the room. A section of canvas above the glass doors on the south side of the room is believed to be original and should be used for matching.

- Lighting
Remove the non-historic directional down lights at the plywood panel ceilings on the east and west side of the skylight.
Restore lighting to 1959 appearance. The cove lighting and all conduit and wiring are to be carefully removed. Any damaged wood at the cove is to be repaired and patched.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Wood identification: 2 samples
- Masonry/mortar analysis: 1 sample (or 2, if include columns)
- Masonry finishes investigation/removal tests: 2 locations
- Finishes analysis: 6 samples
- Canvas analysis/characterization: 1 sample
- Floor composition (slab & joint): 2 samples
- Recommendations of stenciled plywood conservation: n/a



Figure 11-36 - Original Dining Room (Board Room) Location Plan

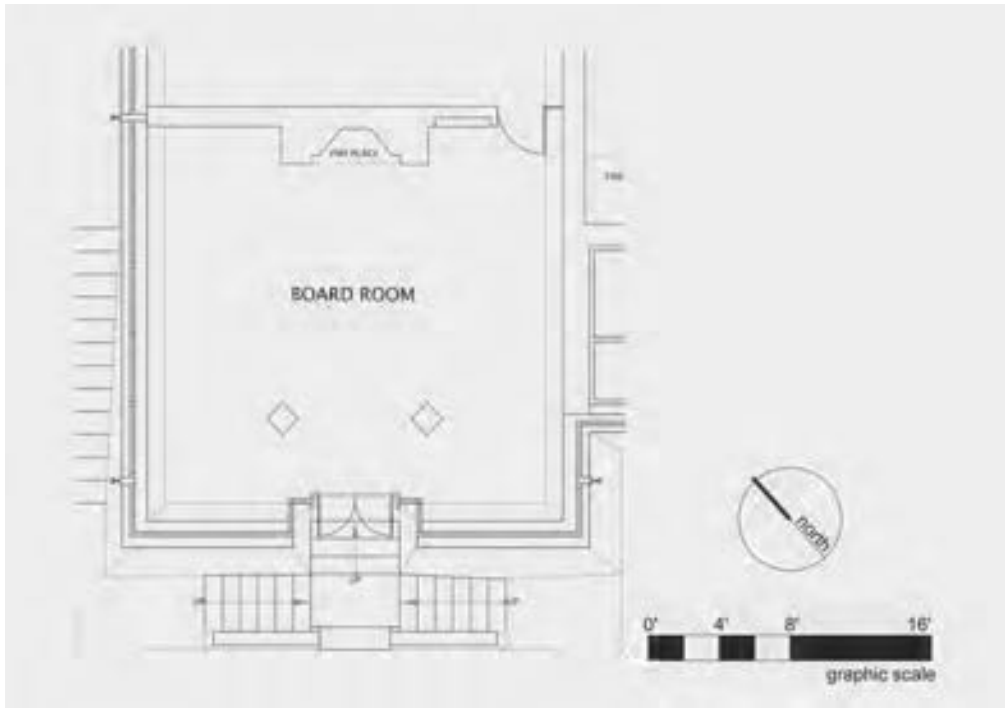


Figure 11-37 - Original Dining Room (Board Room) Floor Plan



Figure 11-38 - Aerial view of Original Dining Room (Board Room) ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-39 - Exterior of Original Dining Room (Board Room) looking north ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-40 - Exterior of Original Dining Room (Board Room) looking north ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-41 - Interior of Original Dining Room (Board Room) ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-42 - Interior of Original Dining Room (Board Room) ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-43 - Exterior of Original Dining Room (Board Room) looking north, 2014 (Harboe Architects).



Figure 11-44 - Exterior of Original Dining Room (Board Room) looking south, 2014 (Harboe Architects).



Figure 11-45 - Roof of Original Dining Room (Board Room) showing skylight, 2014 (Harboe Architects).



Figure 11-46 - Interior of Original Dining Room looking northeast, 2014 (Harboe Architects).



Figure 11-47 - Windows on northwest wall of Original Dining Room, 2014 (Harboe Architects).



Figure 11-48 - Interior of Original Dining Room looking southwest, 2014 (Harboe Architects).

KIVA

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
Reconstruct the desert masonry pier on the southeast side of the entry door. Desert masonry is to match the mix design of the original adjacent walls.
- Roof Surface
The non-historic roofing membrane is to be replaced with a new liquid applied membrane. It is recommended that insulation not be part of the roof scope for the Kiva due to the significant thermal mass in the masonry walls and roof.
- Paving
Remove the concrete paving surrounding the entry and fountain and replace it with new stone paving to match what was there in the 1950s based on photographic evidence.
- Wood Door
Restore wood entry door preserving as much original material as possible. Provide dutchman repairs at areas of significant damage. Prepare and paint the door following repairs. The door is to be reinstalled in its 1950s location on the outside wall swinging out.
- Windows
Remove air conditioning unit and plywood panel at the west window opening. Install a new fixed window to match the frame profile and dimensions of the window on the east wall. Prepare and paint the frames of both the new and existing windows.
- Wood Cladding
Refinish the wood cladding on the projection booth on the north side of the Kiva. The exterior finish is to be determined by finish analysis.
- Bench
Reconstruct the bench on the west side of the entry door based on historic photographs.
- Stairs
Remove the stairs to the Kiva roof. Restore desert masonry wall at location of stair removal.
- Lighting
Restore exterior lighting. Replace missing and damaged lenses.

Interior Scope

- Desert Masonry
Desert masonry walls are to be preserved and the gold paint on the concrete is to remain.
- Millwork
All millwork in the Kiva is to be maintained. Any damaged wood is to be replaced in kind and finished to match the existing adjacent wood elements. The white board below the projection booth is to be removed.
- Concrete Floor
Remove all 2-inch wide mortar joints and replace with new mortar with exposed aggregate to match the existing mortar joints in the Drafting Studio. Provide localized repairs at areas of damaged concrete. Refinish the concrete floor to match the configuration, color and appearance of the 1959 floor in the Kiva. The paint treatment of the floor needs to be verified with further research.
- Lighting
Remove all track lighting at the ceiling. Patch holes in desert masonry ceiling where the lighting track is attached. Restore wood pendant lights, ceiling cove lights, and floor lights.

- Decorative Panel
Replicate the historic decorative painted panel at the ceiling. Color and imagery is to be based on the original panel now on display in the Sun Cottage. Location, configuration and wood framing is to be based on historic photographs.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample (possibly 2, if including ceiling)
- Finishes analysis: 6 samples
- Wood identification (interior & exterior/projection room): 4 samples
- Clear coating ID (for plywood cabinets): 2 samples
- Finishes removal tests on ceiling & wall tops: 2 locations



Figure 11-49 - Kiva Location Plan

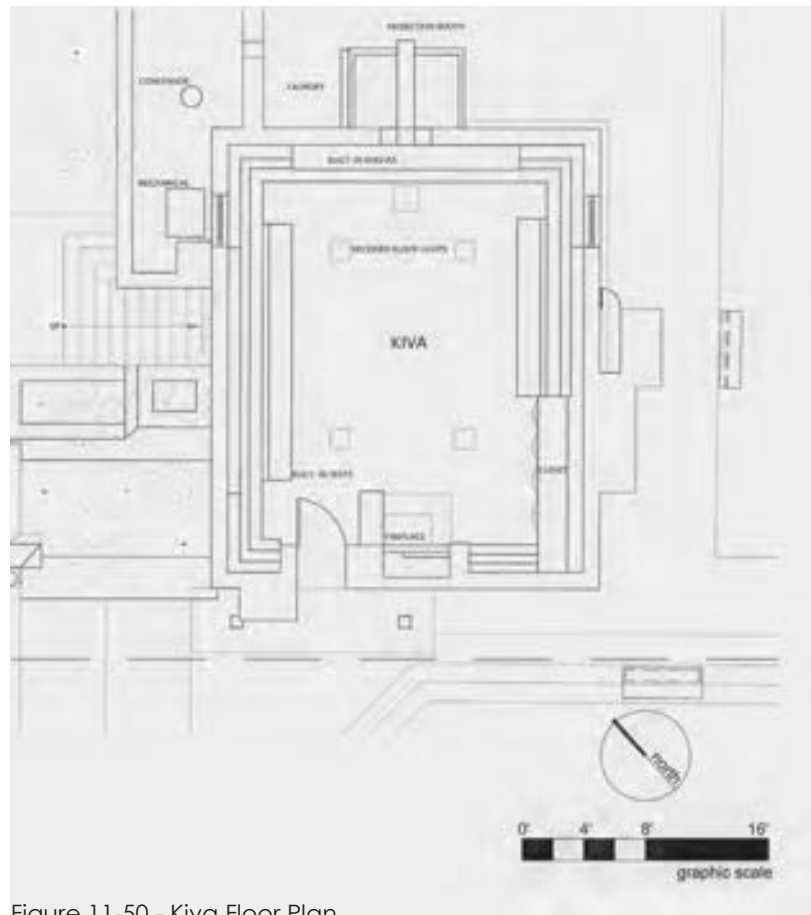


Figure 11-50 - Kiva Floor Plan



Figure 11-51 - Exterior of Kiva ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-52 - Kiva bridge ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-53 - Interior of Kiva ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-54 - Exterior of Kiva looking east, 2014 (Harboe Architects).



Figure 11-55 - Exterior of Kiva looking west, 2014 (Harboe Architects).



Figure 11-56 - Interior of Kiva looking north, 2014 (Harboe Architects).



Figure 11-57 - Interior of Kiva looking southwest, 2014 (Harboe Architects).



Figure 11-58 - Wood pendant light fixture in Kiva, 2014 (Harboe Architects).



Figure 11-59 - Interior of Kiva looking northeast, 2014 (Harboe Architects).

WES PETERS/GENE MASSELINK ROOMS (WWP CONFERENCE ROOM)

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
Remove the desert masonry wall that separates the WWP Conference Room from the sunset terrace.
- Glazing
Remove the non-historic steel framed glass enclosure and roof at the WWP Conference Room. Areas of damaged desert masonry at joints with the steel frame should be repaired and patched to match the original desert masonry.
- Doors
Recreate the glass doors and canvas panels at the openings to Wes Peter's and Gene Masselink's apartments based on historic photographs.
- Roof
The roof is to be replaced with a new liquid applied membrane. New roof insulation is to be provided at the interior side of the roof deck.
- Clerestory
Remove and reconstruct the clerestory over the Wes Peters Apartment.
- Concrete Paving
Remove the carpet and restore the concrete paving on the terrace to its 1959 condition.

Interior Scope

- Millwork
Interior wood trim is to be preserved. Any damaged or missing trim is to be replaced with new trim to match the species, cut, and profile of the existing adjacent trim.
The plywood panel with the decorative painted pattern on it on the north wall in Gene Masselink's room (now the architecture school director's office) is to be preserved in place.
- Concrete Floor
Remove the carpet and restore the concrete floors to their 1959 appearance. More research is required to determine the 1959 finish of the concrete floors. If desired, the addition of area rugs would be appropriate.
- Ceilings
Remove the non-historic plaster ceilings and replace with new canvas ceilings to closely match the appearance, color and texture of the historic canvas in the room. A section of canvas above the glass doors on the south side of the original Dining Room is believed to be original and should be used for matching.
- Bathroom
The existing bathroom is to be remodeled. A square footage allowance is to be included for general remodeling of the bathroom.
- Other Work
Other renovations to accommodate new use include redesigning the lighting, and new furnishings.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Materials Analysis/Testing

- Masonry/mortar analysis: 1 sample
- Finishes analysis (exterior): 6 samples



Figure 11-60 - Peters/Masselink Rooms (WWP Conference Room) Location Plan

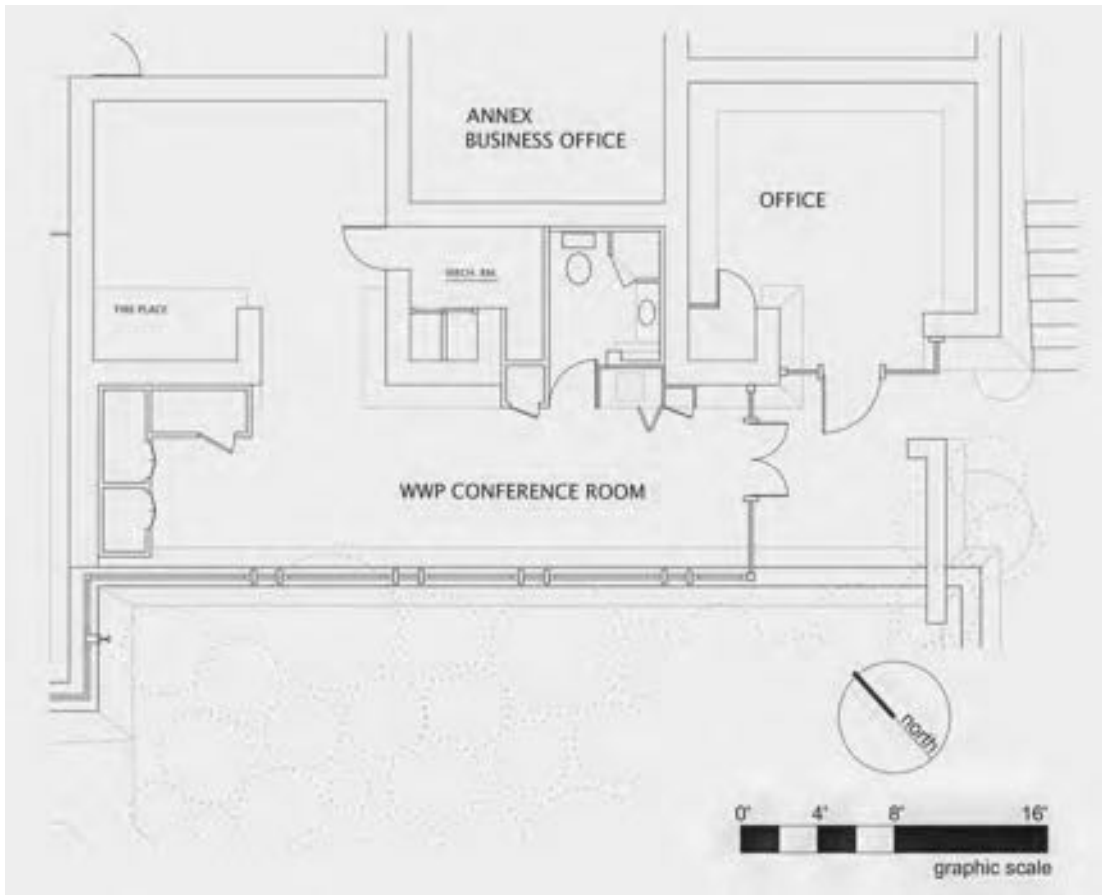


Figure 11-61 - Peters/Masselink Rooms (WWP Conference Room) Floor Plan



Figure 11-62 - Aerial view of Peters/Masselink Apartments ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-63 - South facade of Peters/Masselink Apartments ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-64 - Exterior of Peters/Masselink Apartments (WWP Conference Room) in 2014 (Harboe Architects).



Figure 11-65 - Interior of Peters Apartments (WWP Conference Room) in 2014 (Harboe Architects).



Figure 11-66 - Interior of WWP Conference Room looking east, 2014 (Harboe Architects).



Figure 11-67 - Interior of WWP Conference Room looking west, 2014 (Harboe Architects).



Figure 11-68 - Interior of Wes Peters room looking northeast, 2014 (Harboe Architects).



Figure 11-69 - Interior of Gene Masselink room (Director's office) looking northeast, 2014 (Harboe Architects).

GARDEN ROOM

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
 - Roof Structure
The non-historic deteriorated wood members that make up the existing roof trusses should be replaced with new wood members. All new wood should be painted to match the 1959 finish of the wood. Paint finish analysis should be performed to identify the chronology, material properties & appearance of the early coatings. An appropriate coating system and recommended frequency for application should be identified. The metal flitch plates and gutters are from the period of significance and should be preserved where possible. Metal flitch plates are to be prepared and painted prior to the installation of the new wood members.
 - Roof Surface
The non-historic existing acrylic roof system is to be removed. A new roof system made up of fabric panels is to be installed. The new panels are to match the dimensions, scale, and appearance of the panels that were in place upon Wright's death in 1959. More research as well as full scale mock ups will be required to determine a proper fabric for the roof panels.
The built-up roofs over the extensions on the east and south sides of the Garden Room, as well as on the concrete roof over the west entry are to be removed and replaced with a new liquid applied membrane roof system.
- Doors
The wood doors are to be retained. The doors are to be finished to match the finish used prior to Wright's death in 1959. The doors next to the fireplace are to be replaced with new hollow core mahogany doors to match the doors that were previously in this location.
- Glazing
All of the glazing and metal window framing that engages the roof structure is to be carefully documented, disassembled and salvaged. After the glazing is removed the metal frames are to be stripped, any corrosion is to be removed, and the frames are to be repainted. The glass and restored frames are to be reinstalled in place following restoration of the roofs.
Prepare and paint all steel framing at the window systems.
 - Canvas Flaps
The canvas flaps over the clerestory on the east side of the Garden Room are not from the period of significance and are to be removed. The historic canvas flap supports are to be recreated based on historic documentation.
 - Skylights
The skylights above the west entry to the Garden Room are to be documented, dismantled and salvaged. The glazing is to be cleaned and the frames prepared and painted. The skylights are to be reinstalled following the restoration of the roof structure.
 - Architectural Accent Lighting
The accent lighting is to be redesigned and replaced. The roof lights that were present in the 1950s should be recreated and installed in their approximate original locations based on historic documentation. The small spot lights mounted on the canvas flap support posts are to be recreated based on historic documentation.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and

materials and processes well documented. The cracked desert masonry in the partial height wall at the entry is to be repaired and wood supports removed.

- Concrete Floor

The existing carpet is to be removed and the concrete floor below is to be restored to its 1959 appearance. The floor is to be painted red to match the color of the 1959 floor. The floor in the Garden Room was reconstructed in the 1990s. A paint sample should be taken from the floor in the Drafting Studio to be analyzed.

- Ceiling

Remove the canvas at the ceiling over the enclosed porch on the east side of the room. Install new canvas at the ceiling that matches the color, texture, and appearance of the 1959 canvas.

- Millwork

The interior trim, trellis-work below the skylights, and built in wood furnishings are to be preserved. Any damaged or missing wood elements are to be replaced with new wood elements to match the species, cut, and profile of the existing adjacent trim. The trellis-work is to be carefully documented, disassembled, salvaged and reinstalled following the restoration of the roof structure.

- V-Shaped Supports

The V-shaped supports that were below the clerestory at the lower roof on the east side of the Garden Room and removed in 1990s are to be recreated based on historic documentation and reinstalled.

- Lighting

The decorative wood and glass ceiling fixtures are to be carefully documented, disassembled, salvaged, and reinstalled after the restoration of the roof structure is completed.

- Furnishings and Decorative Art Objects

The benches on the west and south side of the room are to be restored their appearance during the Frank Lloyd Wright period. Further analysis of the furnishings and art objects beyond the scope of this report is necessary to fully understand how the room was furnished and decorated during Wright's lifetime.

- Fire Protection

It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample
- Finishes analysis (interior wood; metal hopper windows): 4 samples



Figure 11-70 - Garden Room Location Plan

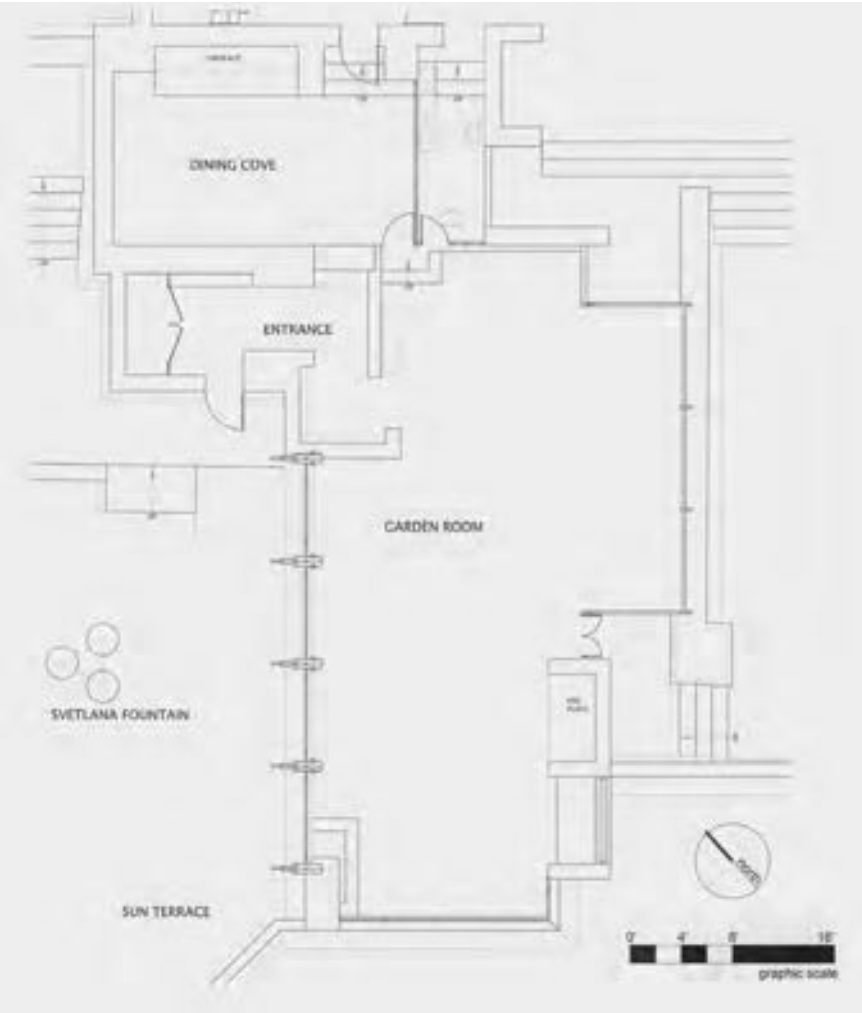


Figure 11-71 - Garden Room Floor Plan



Figure 11-72 - Aerial view of Garden Room ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-73 - Interior of Garden Room looking east, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-74 - Interior of Garden Room looking west, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-75 - Interior of Garden Room looking southwest, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-76 - Exterior of Garden Room looking east, 2014 (Harboe Architects).



Figure 11-77 - Exterior of Garden Room looking northwest from garden, 2014 (Harboe Architects).



Figure 11-78 - Exterior of Garden Room looking southwest from terrace outside Swan Cove, 2014 (Harboe Architects).



Figure 11-79 - Interior of Garden Room looking southwest, 2014 (Harboe Architects).



Figure 11-80 - Interior of Garden Room looking northeast, 2014 (Harboe Architects).



Figure 11-81 - Interior of Garden Room looking east at fireplace, 2014 (Harboe Architects).

WRIGHTS' LIVING QUARTERS

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Concrete Paving
The painted concrete paving and steps on the south side of the Wrights' Living Quarters are to be maintained.
- Roof
The non-historic roof is to be replaced with a new liquid applied membrane.
- Doors
The non-historic wood bi-fold doors on the south (garden) side of the Wrights' living quarters are to be removed and replaced with canvas panels that match the appearance of the panels that were there during the period of significance.
- Glazing
All existing glazing is to remain.
- Water Tower
Restore the water tower roof to the Frank Lloyd Wright period. Preserve existing wood framing where possible. Damaged wood members and elements are to be replaced with new wood that matches the species, cut, and profile of the existing adjacent wood. The deteriorated OSB roof deck is to be replaced with a new painted plywood deck.

Interior Scope

- The interiors of the Wright's living quarters were restored in 2004. They require continued maintenance of finishes, fixtures, and furnishings. An extensive assessment of all decorative art and historic objects on display in the living quarters should be completed.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

Bedrooms

- Masonry/mortar analysis (FLLW & OLLW Rooms): 2 samples
- Floor composition (FLLW room only): 1 sample
- Floor finish (FLLW room only): 1 sample
- Wood identification (FLLW room shelving): 1 sample
- Finishes analysis (FLLW room shelving): 1 sample

The Cove

- Masonry/mortar analysis: 1 sample
- Floor finish: 1 sample
- Wood identification (shelving): 1 sample
- Finishes analysis (shelving): 1 sample

Water Tower

- Masonry/mortar analysis: 1 sample
- Finishes analysis (wood): 3 samples
- Salt identification: 2 samples



Figure 11-82 - Wrights' Living Quarters Location Plan

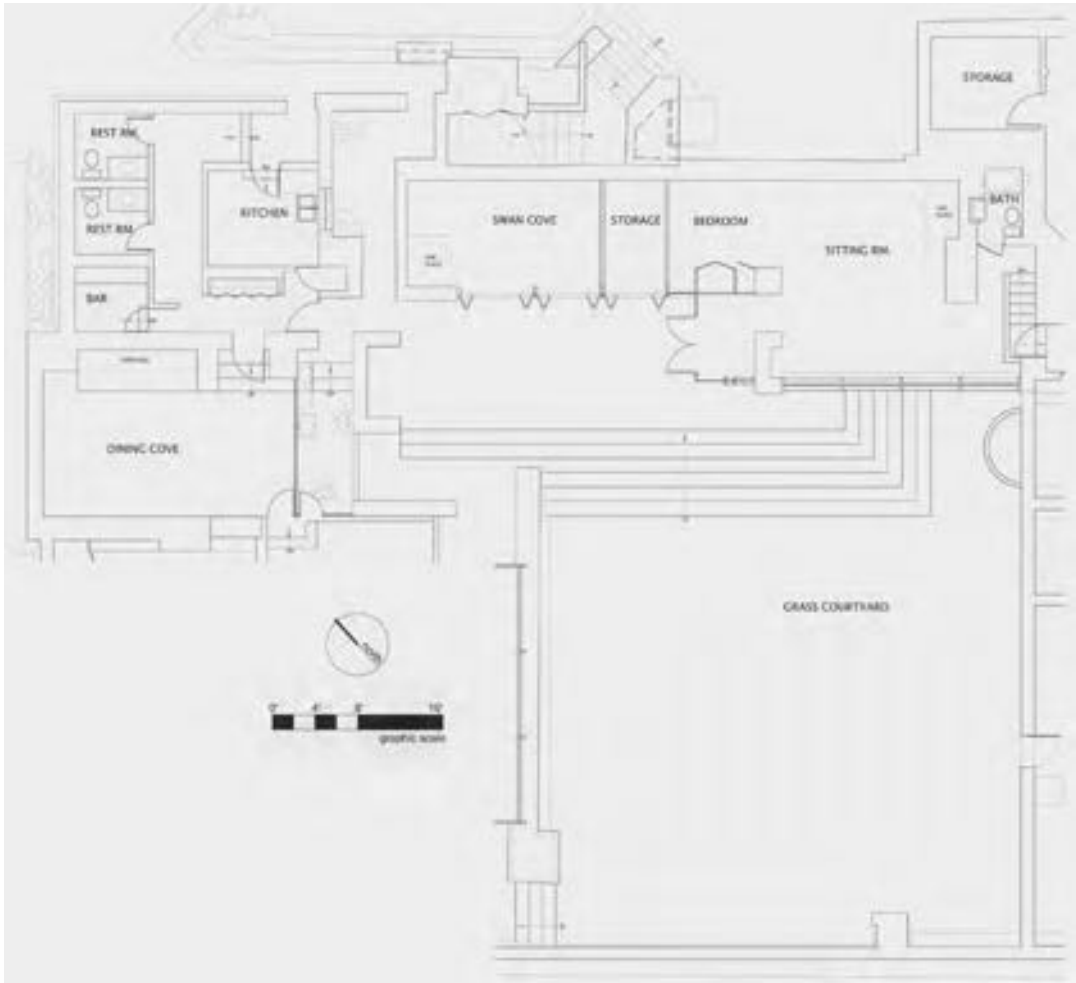


Figure 11-83 - Wrights' Living Quarters Floor Plan

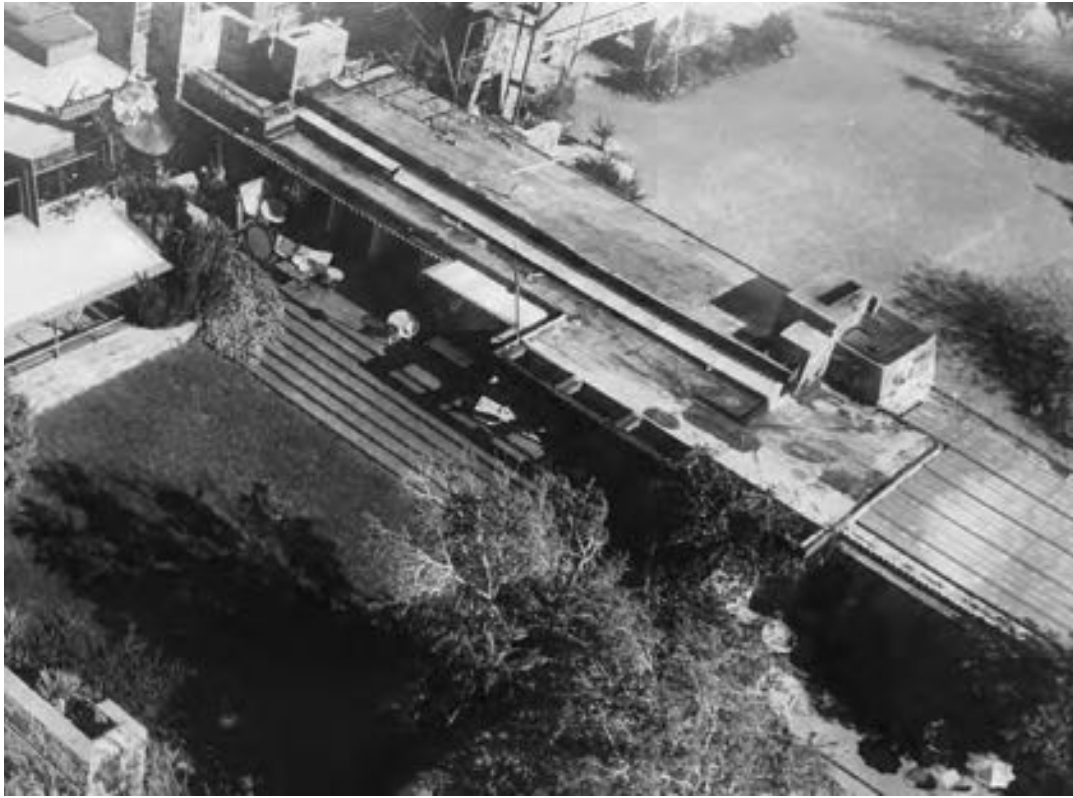


Figure 11-84 - Aerial view of Wrights' Living Quarters, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-85 - Wrights' Living Quarters, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-86 - Exterior of Wrights' Living Quarters looking north from garden, 2014 (Harboe Architects).



Figure 11-87 - Exterior of Wrights' Living Quarters looking north at wood bi-fold doors, 2014 (Harboe Architects).



Figure 11-88 - Interior of Wright's Living Quarters looking north at Wright's desk and bedroom, 2014 (Harboe Architects).



Figure 11-89 - Interior of Wright's Living Quarters looking south at sitting room, 2014 (Harboe Architects).



Figure 11-90 - Water Tower, 2014 (Harboe Architects).



Figure 11-91 - Detail of Water Tower roof showing damaged wood, 2014 (Harboe Architects).

CABARET

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Operable Panels
Remove the non-historic plywood panels along the east side corridor. Install new operable canvas panels at the openings. The new canvas panels are to match the original panels based on historic photographs and any physical evidence that may still exist in the archives.
- Roof Structure
Recommendations made in the report prepared by MCC 1200 Architectural Engineers in 2013, including structural monitoring of the roof slab and materials testing, should be executed prior to any restoration project on the Cabaret.
- Roof Surface
The non-historic roof membrane is to be replaced with a new liquid applied membrane.
- Doors
The wood entry doors on the Cabaret are to be painted to match the color of doors prior to Wright's death in 1959. More research is needed to determine the historic color of the doors. The decorative carved wood panels on the interior of the doors are to be carefully documented, dismantled, and stored in the archives. New replica carved wood panels are to be created and installed on the doors.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
Clean desert masonry walls and ceiling to remove all efflorescence.
- Carpet & Upholstery
Replace the non-historic carpet and upholstery. New carpet and upholstery is to match the materials used prior to Wright's death in 1959. More research is needed to determine the carpet and upholstery used in the Cabaret in 1959.
- Flooring
Remove the concrete flooring that was poured on top of the original desert masonry floor in the corridor. Restore the desert masonry. Concrete flooring in the theater space is to be maintained.
- Seating
Restore the rows of seating that were removed after Frank Lloyd Wright's death. The rows are to be recreated using historic drawings and photographs of the interior of the Cabaret.
- Wood Trim
Recreate the decorative wood trim at the ceiling of the Cabaret using historic drawings and photographs.
- Lighting
Remove the string lights at the ceiling. The existing wall sconces are to remain. Missing and damaged lenses on the lights at the base of the wall in the corridor and along the aisle in the theater are to be replaced with new lenses that match the color and translucency of the existing lenses. Restore the ceiling light above the stage.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis (walls & ceiling/roof): 2 sample
- Floor composition: 1 sample
- Floor finish analysis: 1 sample
- Finishes analysis (wood): 4 samples

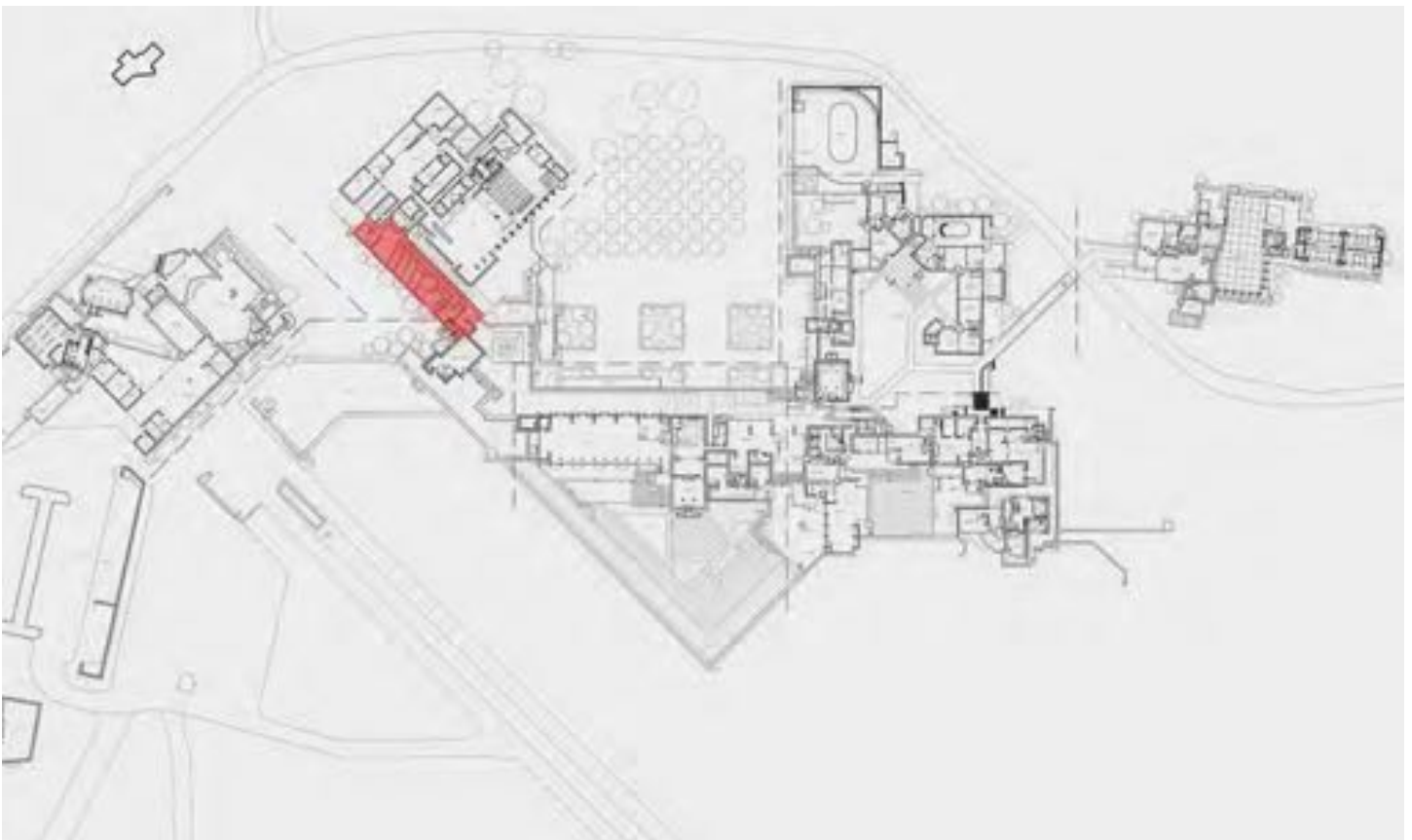


Figure 11-92 - Cabaret Location Plan

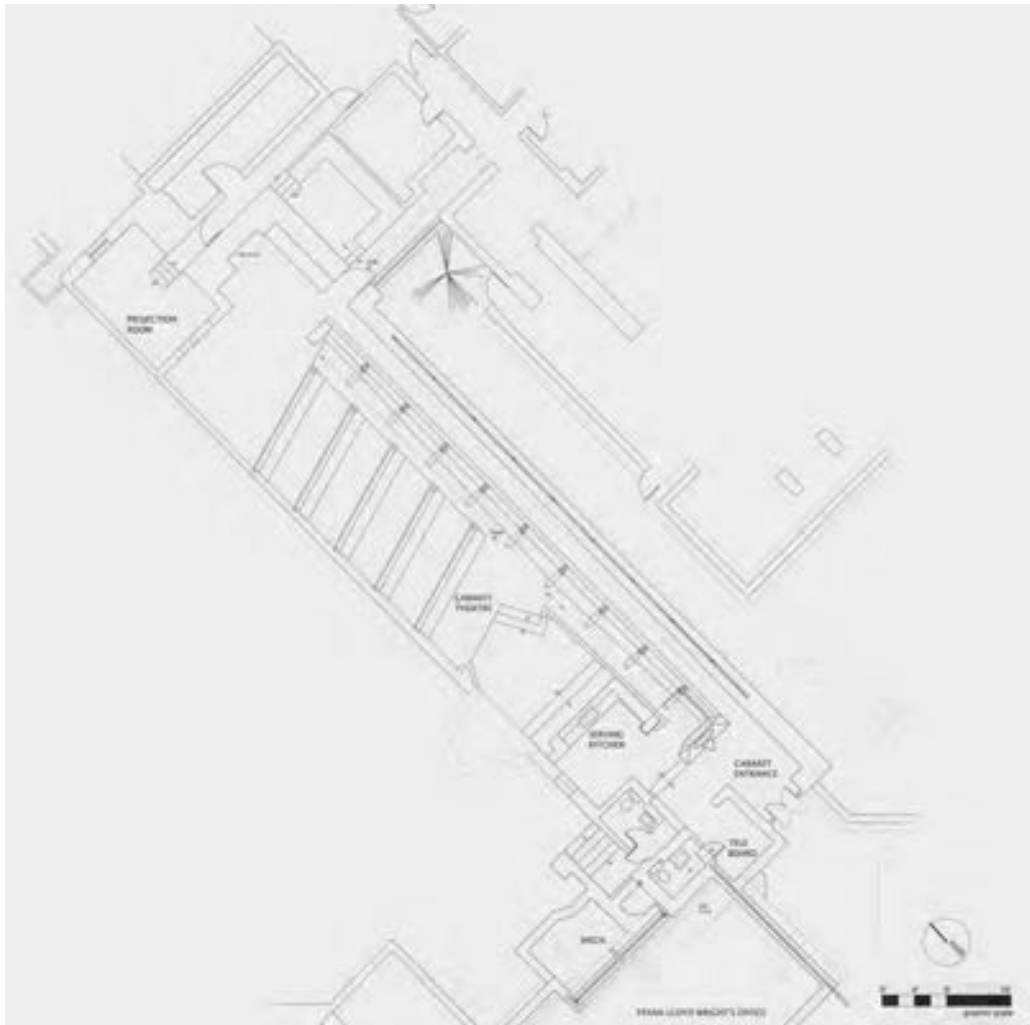


Figure 11-93 - Cabaret Floor Plan



Figure 11-94 - Interior of Cabaret looking south at operable canvas flaps, ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-95 - Exterior of Cabaret looking west, ca. 1952 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-96 - Interior of Cabaret theater looking north, ca. 1955 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-97 - Interior of Cabaret looking south, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-98 - Looking north at Cabaret entrance, 2014 (Harboe Architects).



Figure 11-99 - Roof of Cabaret, 2014 (Harboe Architects).



Figure 11-100 - Entry hall of Cabaret looking north, 2014 (Harboe Architects).



Figure 11-101 - Cabaret corridor looking north, 2014 (Harboe Architects).



Figure 11-102 - Cabaret corridor looking south at entry doors, 2014 (Harboe Architects).



Figure 11-103 - Cabaret theater looking south, 2014 (Harboe Architects).



Figure 11-104 - Cabaret theater lights, 2014 (Harboe Architects).

DINING ROOM

Exterior Scope

- Roof
The non-historic roof membrane is to be replaced with a new liquid applied membrane. Roof drains should be enlarged to accommodate large downpours of rain and prevent clogging.
- Metal Framed Glass Enclosure
Remove the corrosion at the metal frame for the glass enclosure on the north side of the Dining Room. Prepare and paint the frame. Finish analysis should be conducted to determine the original finish on the metal frames.
- Doors
The metal and glass doors on the east side of the Dining Room are to remain. Prepare and paint the doors and metal frames. The large wood pivot door is to be painted. Paint analysis should be conducted to determine the original finishes on the doors.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
Remove all white paint from the desert masonry walls in the annex office.
- Ceilings
Replace the water stained fabric panels with new panels to match the existing adjacent fabric in color and texture.
Replace the gypsum coated foam ceiling in the annex office with a new plaster ceiling.
- Steel Beams
The exposed steel beams at the ceiling are to be prepared and painted. Finish analysis should be conducted to determine the original finish on the steel beams.
- Flooring
The carpet is to be cleaned. New carpet may be installed when the current carpet becomes worn and/or significantly soiled.
- Doors
The wood and glass doors between the Dining Room and Kitchen are to be maintained and require no work at this time. The wood veneer doors at the closets are to be refinished. Sections of damaged veneer are to be repaired prior to refinishing the doors.
- Millwork
The wood cabinets on the west wall of the Dining Room are to be maintained. Any damaged wood is to be replaced in kind and finished to match the existing adjacent wood.
- Lighting
The ceiling lighting is to be maintained. Damaged wood elements on the light diffusers are to be replaced with new wood to match the species, cut, dimensions, and finish of the existing wood. The lighting in the annex office is to be replaced and a new lighting layout and fixtures designed for this space.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample
- Finishes analysis (exterior window frame): 2 samples



Figure 11-105 - Dining Room Location Plan

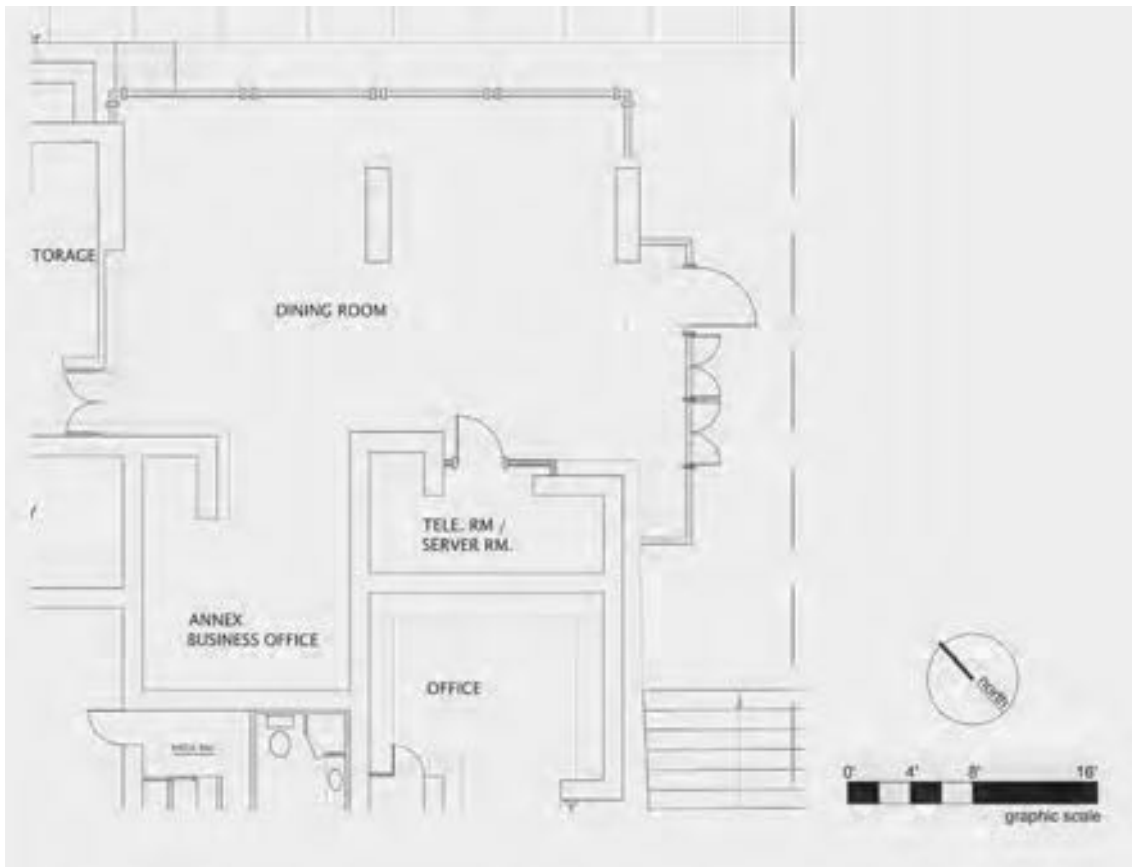


Figure 11-106 - Dining Room Floor Plan



Figure 11-107 - View of Dining Room from Kiva roof, 2014 (Harboe Architects).



Figure 11-108 - Exterior of Dining Room looking west, 2014 (Harboe Architects).



Figure 11-109 - Interior of Dining Room looking southeast, 2014 (Harboe Architects).



Figure 11-110 - Interior of Dining Room looking west, 2014 (Harboe Architects).



Figure 11-111 - Interior of Dining Room looking south at door, 2014 (Harboe Architects).



Figure 11-112 - Interior of Dining Room looking northwest at doors to kitchen, 2014 (Harboe Architects).

GUEST DECK

Exterior Scope

- Roof
The non-historic roofing is to be replaced with a new liquid applied membrane. Provide new metal pan and concrete roof deck. New roof insulation is to be provided at the interior side of the roof deck.
- Soffit
Damaged areas of the metal soffit are to be replaced and the entire soffit is to be prepared and painted.
- Steel Structure
The steel structure is to be maintained. All exposed metal is to be painted to match the color used when the Guest Deck was rebuilt in 1970. Finish analysis should be conducted to determine the original finish on the exposed metal.
- Decking
The existing concrete decking is to be recoated with a new waterproofing membrane.
- Metal Railings
The metal railings around the perimeter of the Guest Deck are to be painted to match the color used when the Guest Deck was rebuilt in 1970. Finish analysis should be conducted to determine the original finish on the exposed metal.
- Doors
The mirrored glass doors at the entrances to each guest room are to be replaced with clear glass doors.
- Plywood Shutters
The painted plywood shutters are to be prepared and painted.

Interior Scope

- Walls
Repair all damaged sections of gypsum board walls in the guest rooms. Prepare and paint all interior walls.
- Millwork
Strip and refinish all interior millwork and casework.
- Bathrooms
Update bathrooms with new finishes and fixtures.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

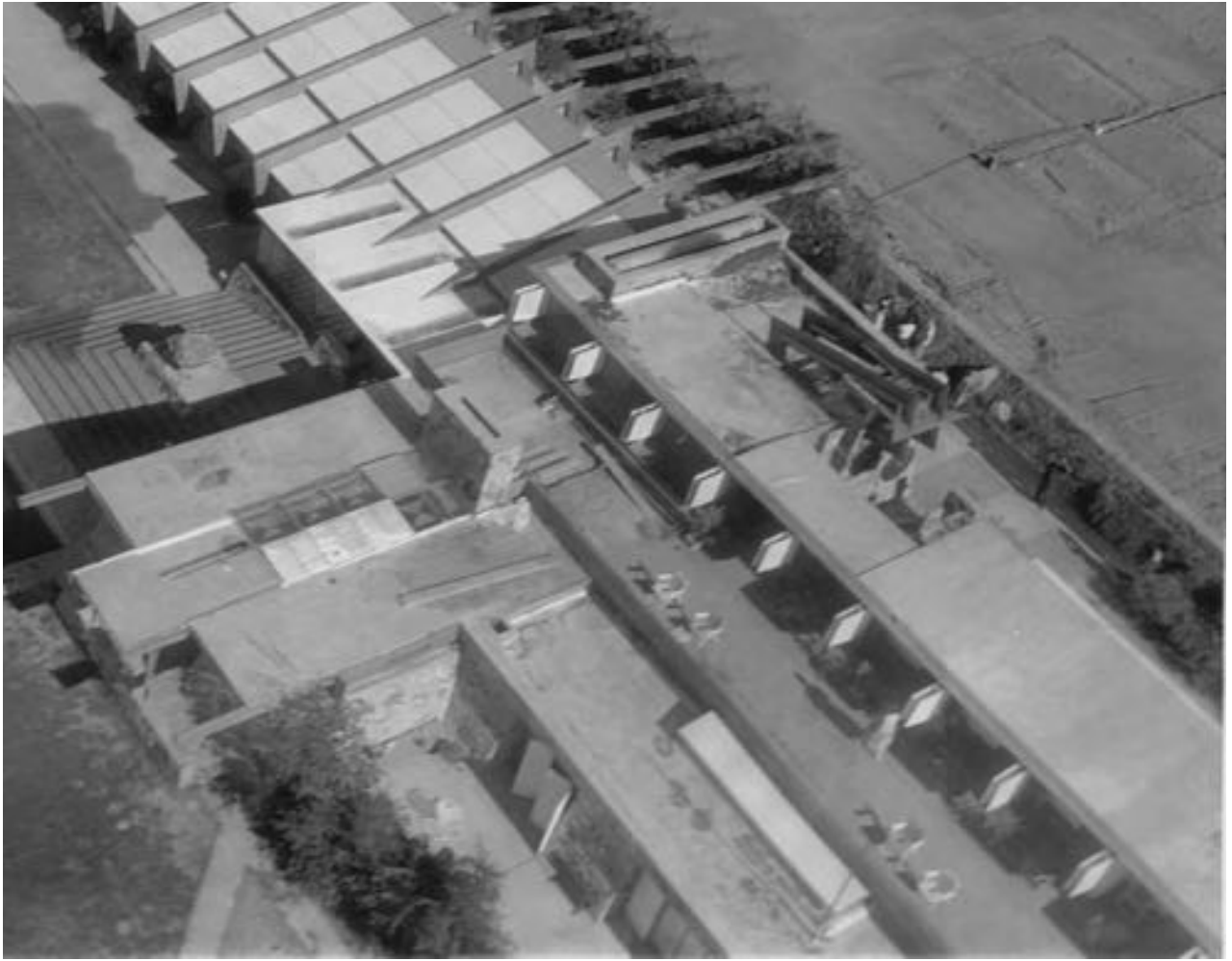


Figure 11-115 - Aerial view of Guest Deck looking east, 1959 (Pedro Guerrero).



Figure 11-116 - Guest Deck looking east, 2014 (Harboe Architects).



Figure 11-117 - Guest Deck looking north at guest room with open wood flaps, 2014 (Harboe Architects).



Figure 11-118 - Guest Deck looking north at guest room with closed wood flaps, 2014 (Harboe Architects).



Figure 11-119 - North side of guest rooms looking east, 2014 (Harboe Architects).



Figure 11-120 - Interior of typical guest room, 2014 (Harboe Architects).

APPRENTICE COURT (INCLUDES WOMEN'S AND ORIGINAL MEN'S LOCKER ROOMS)

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented. Remove through wall air conditioning unit and repair the desert masonry wall.
- Roof
The roof is to be replaced with a new liquid applied membrane. New roof insulation is to be provided at the interior side of the roof deck. All wood and metal trim at the eaves is to be prepared and painted. Finish analysis should be conducted to determine the original finishes. The decking and membrane over the breezeway and the east half of the Apprentice Court is to be replaced with a new concrete roof deck and membrane.
- Windows & Doors
Existing windows, doors and frames are to be maintained. Repair all damaged windows and doors and prepare and paint.
- Mechanical Equipment
Remove all exposed condensers, mechanical units, conduit, and piping on the roofs over the Apprentice Court apartments and locker rooms.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Ceilings
The fiber board ceilings in the east half of the Apprentice Court apartments are to be removed and replaced with a new insulated ceiling treatment.
- Wood Structure
Specific historic elements, such as the historic wood beams inside Arnold Roy's apartment, should be preserved where possible. Damaged sections of wood are to be replaced with new wood dutchman repairs that match the species, cut, and finish of the existing adjacent wood.
- Interior Partitions & Finishes
The apartments at the Apprentice Court are to be renovated as needed to accommodate current and future programmatic needs of the Frank Lloyd Wright Foundation. This will include the alteration of interior partitions and finishes. A square footage allowance is to be included for general remodeling.
- Locker Rooms
The old men's locker room and women's locker room are to be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample



Figure 11-121 - Apprentice Court Location Plan



Figure 11-122 - Aerial view of Apprentice Court, ca 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

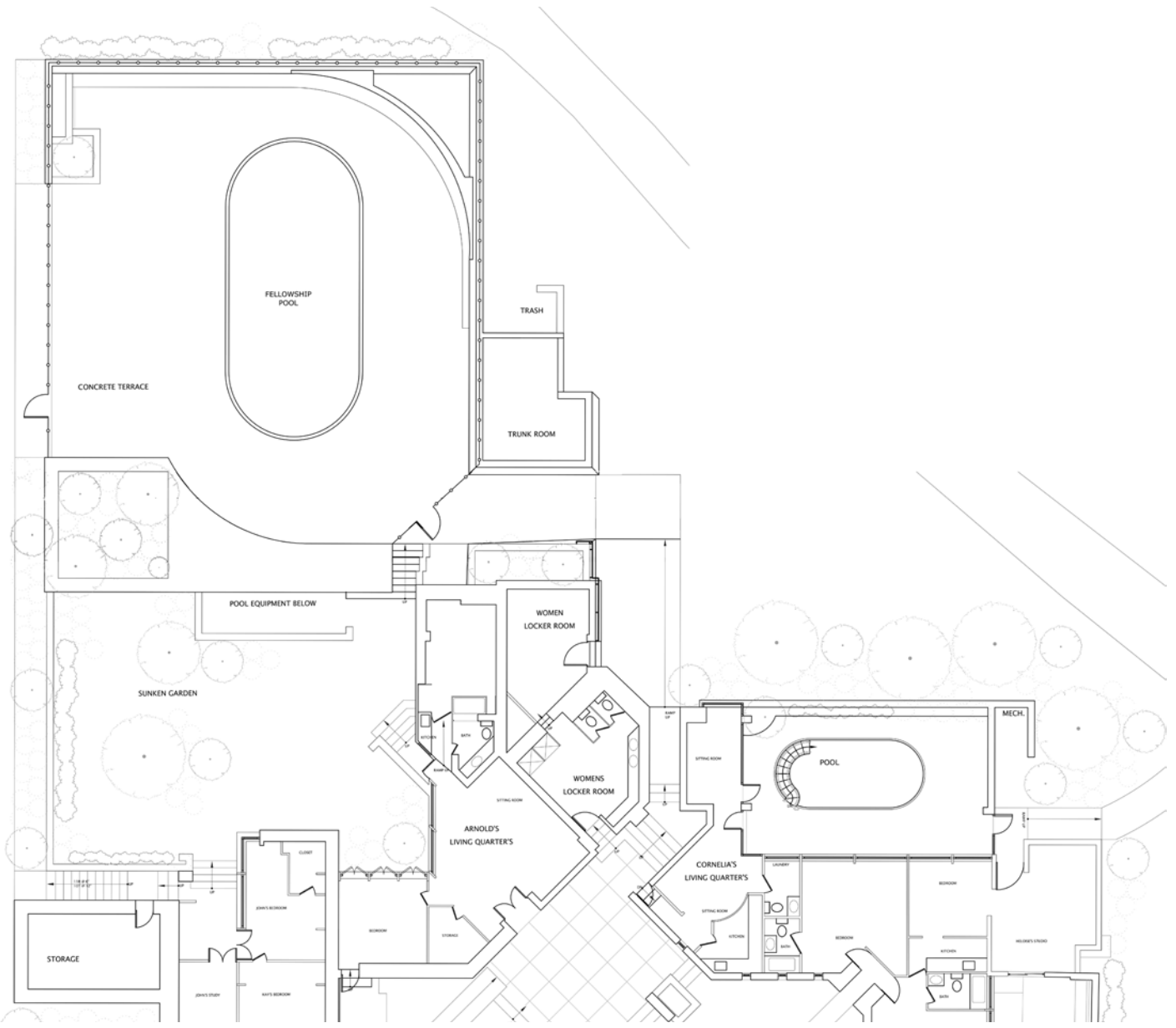


Figure 11-123 - Apprentice Court Floor Plan



Figure 11-124 - Apprentice Court looking northeast, 2014 (Harboe Architects).



Figure 11-125 - North side of the Apprentice Court, 2014 (Harboe Architects).



Figure 11-126 - Apprentice Court apartments roof, 2014 (Harboe Architects).



Figure 11-127 - South side of Apprentice Court apartments, 2014 (Harboe Architects).

SHOPS

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The non-historic roof is to be replaced with a new liquid applied membrane. All wood fascia at the eaves is to be prepared and painted. Damaged wood fascia is to be replaced with new wood that matches the species, cut, and finish of the existing adjacent wood. Finish analysis should be conducted to determine the original finishes.
The roof deck over the tool shop is believed to be original tongue and groove wood decking. This roof deck should be preserved. Any damaged wood decking should be replaced with new tongue and groove decking to match the original. Other areas of roof deck are non-original plywood decking. Damaged plywood is to be replaced with new plywood decking.
- Light Tower
All areas of non-matching patches and replacement concrete in the desert masonry of the Light Tower should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. The metal gate, light pole and light fixtures are to be maintained. All exposed metal is to be prepared, corrosion removed, and painted. Repair metal gate attachments to the Light Tower.
- Root Cellar
All areas of non-matching patches and replacement concrete in the desert masonry of the Root Cellar should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. A structural analysis of the roof of the Root Cellar is to be completed. For cost estimating it should be assumed that the entire roof structure will need to be replaced.

Interior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented. The wood post supporting the roof over the tool shop is to be replaced with a new desert masonry pier to match the pier that was in this location in the late 1950s.
- Wood Structure
The exposed wood structure is to be maintained. All damaged wood members are to be replaced with new wood members that match the existing in species, cut, and dimension. The wood structure is to be prepared and painted. Finish analysis should be conducted to determine the historic paint finish.
- Plywood Decking
The exposed plywood decking is to be painted to match the finish of the wood beams.
- Lighting
Lighting in the Shops is to be redesigned to provide adequate task lighting for the operation of the machinery.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

Shops

- Masonry/mortar analysis: 1 sample
- Wood identification: 2 samples
- Finishes analysis: 4 samples

Light Tower

- Masonry/mortar analysis: 1 sample
- Salt identification: 1 sample
- Finishes analysis (metal): 3 samples

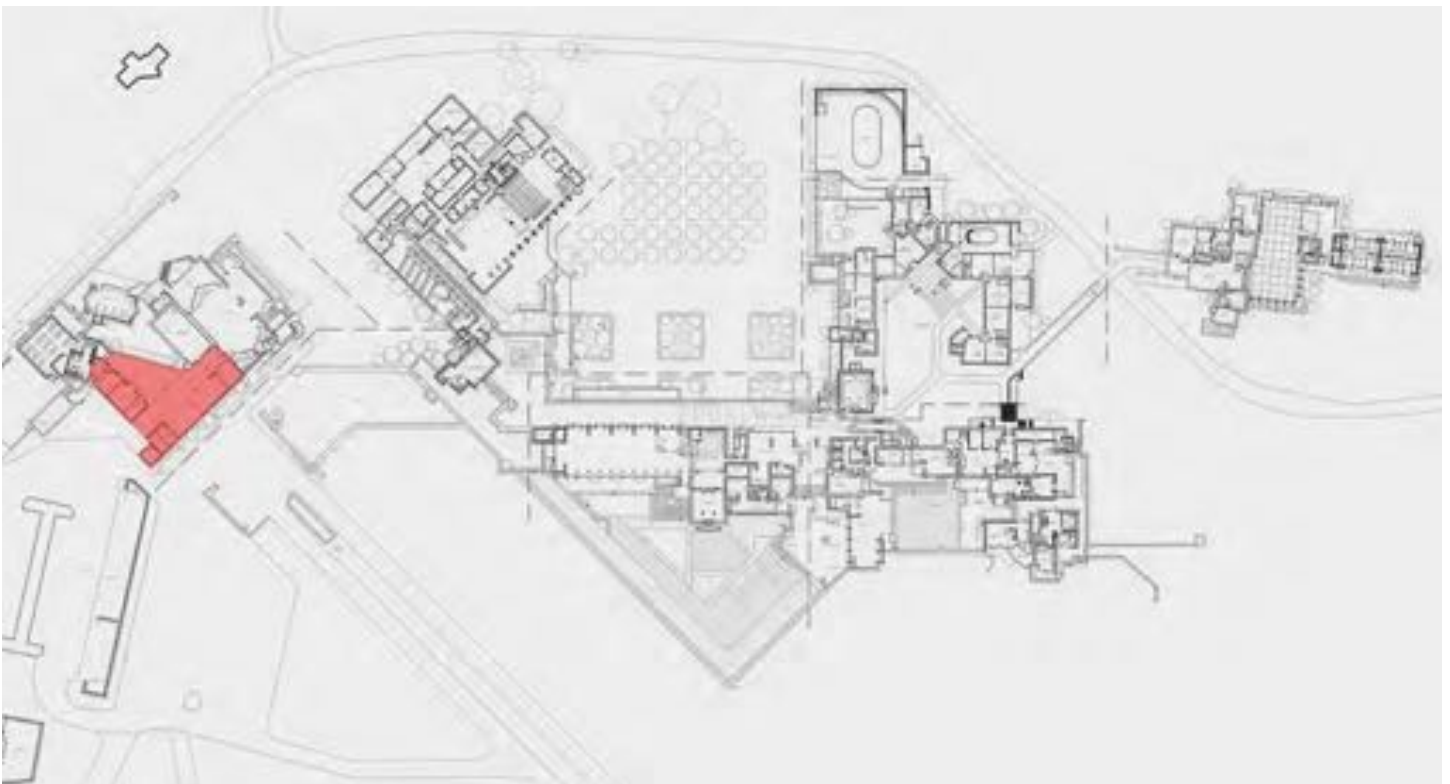


Figure 11-128 - Shops Location Plan

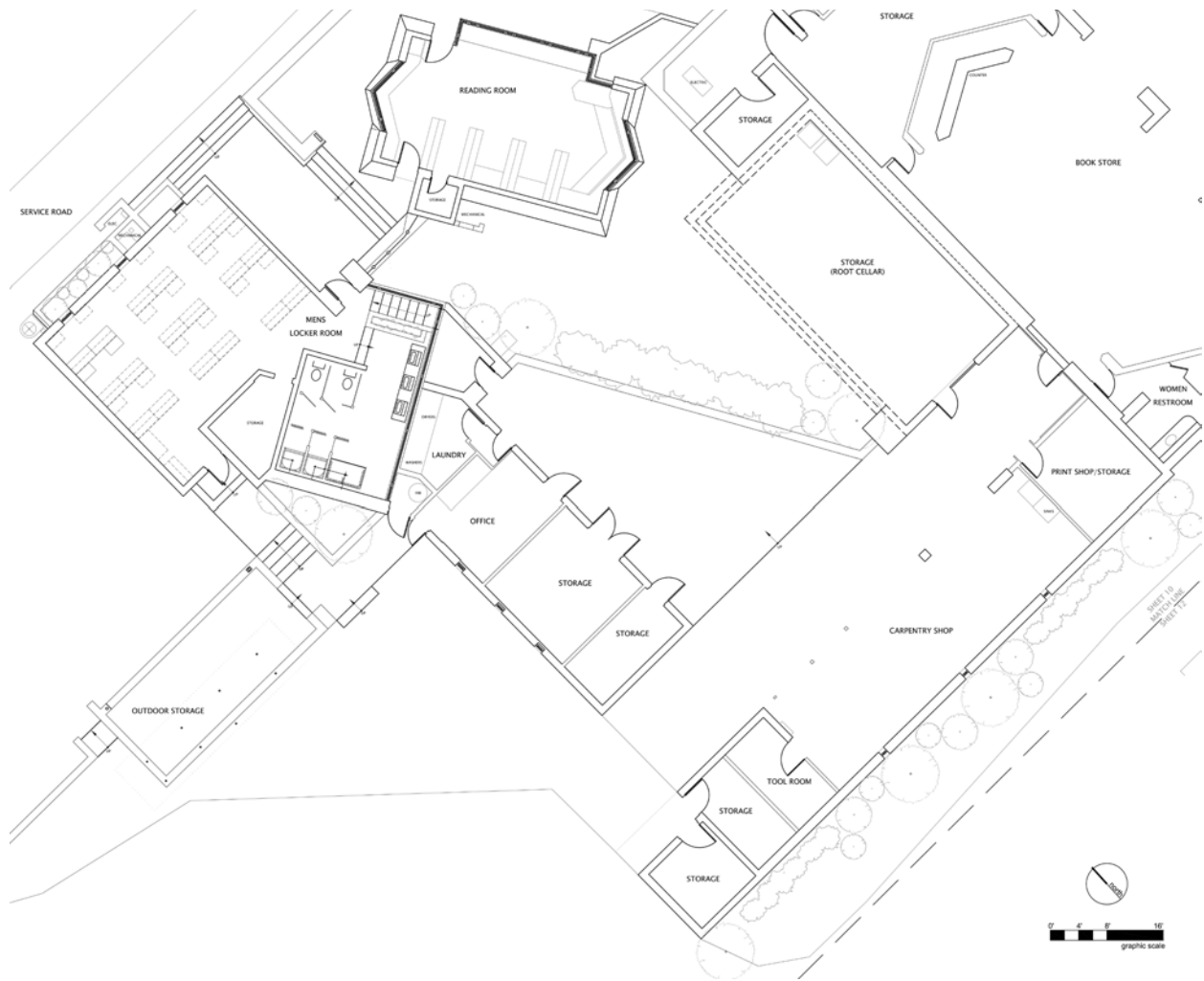


Figure 11-129 - Shops Floor Plan



Figure 11-130 - Aerial view of the Shops, ca 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-131 - Apprentice working in the Shops, ca. 1960 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-132 - View of Shops and Light Tower looking north, 2014 (Harboe Architects).



Figure 11-133 - View of Shops looking south, 2014 (Harboe Architects).



Figure 11-134 - View of Shops roof, 2014 (Harboe Architects).



Figure 11-135 - View of Shops showing wood fascia at eaves, 2014 (Harboe Architects).



Figure 11-136 - Interior of shops, 2014 (Harboe Architects).

MEN'S LOCKER ROOM

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The non-historic roof is to be replaced with a new liquid applied membrane. All fascia at the eaves is to be prepared and painted.
- Doors
The doors are in good condition and are to be maintained.
- Windows
The windows are in good condition and are to be maintained.
- Skylights
The skylights are in good condition and are to be maintained.

Interior Scope

- Interior Renovations
The interior of the Men's Locker Room can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None



Figure 11-137 - Men's Locker Room Location Plan

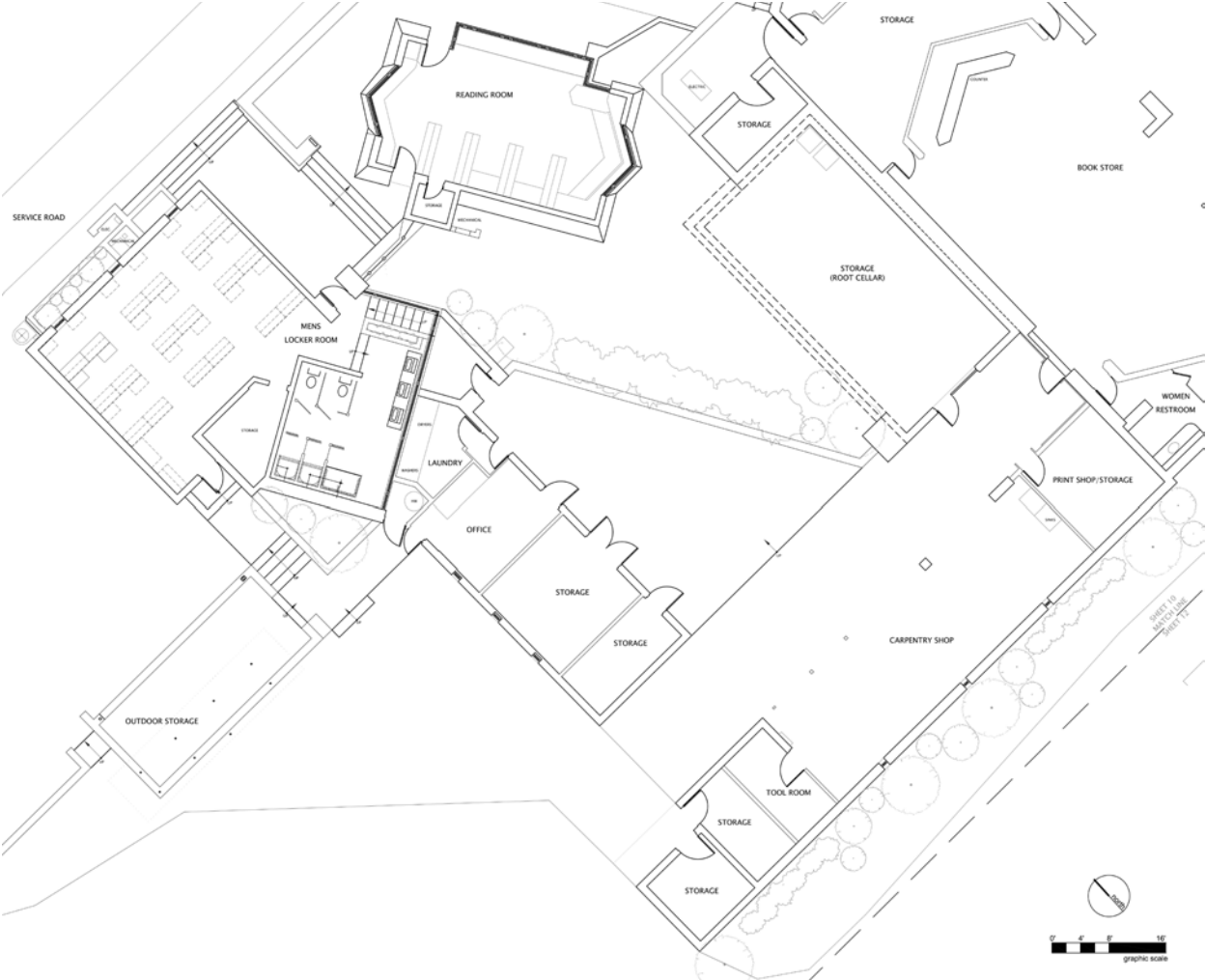


Figure 11-138 - Men's Locker Room Floor Plan



Figure 11-139 - North side of Men's Locker Room, 2015 (Harboe Architects).



Figure 11-140 - Soffit on northeast side of Men's Locker Room, 2015 (Harboe Architects).



Figure 11-141 - Sink area inside Men's Locker Room, 2015 (Harboe Architects).



Figure 11-142 - Storage area inside Men's Locker Room, 2015 (Harboe Architects).

READING ROOM

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof is to be replaced with a new liquid applied membrane. All fascia at the eaves is to be prepared and painted.
- Soffit
New board and textured plaster finish is to be installed at all unfinished sections of exterior soffit.
- Glazing
The glazing is in good condition and is to be maintained.
- Doors
The doors are in good condition and are to be maintained.

Interior Scope

- Interior Renovations
The interior of the Reading Room can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

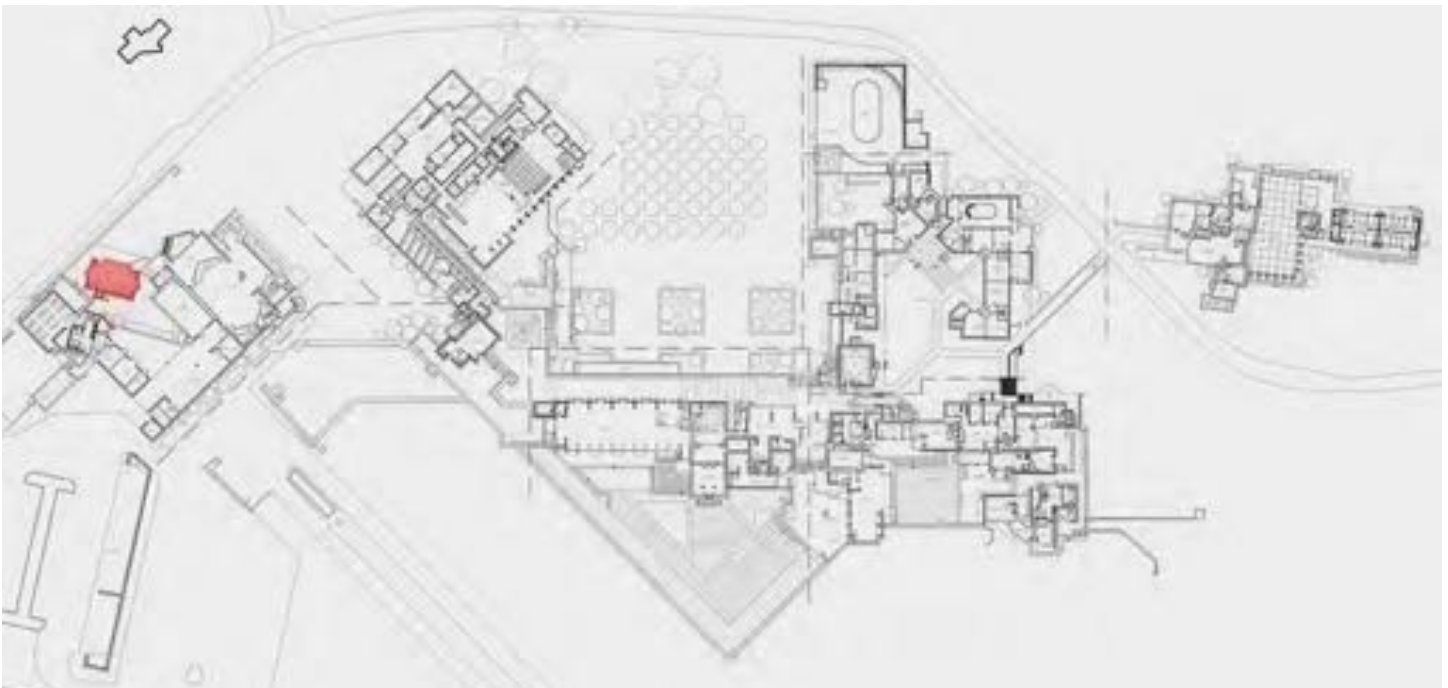


Figure 11-143 - Reading Room Location Plan

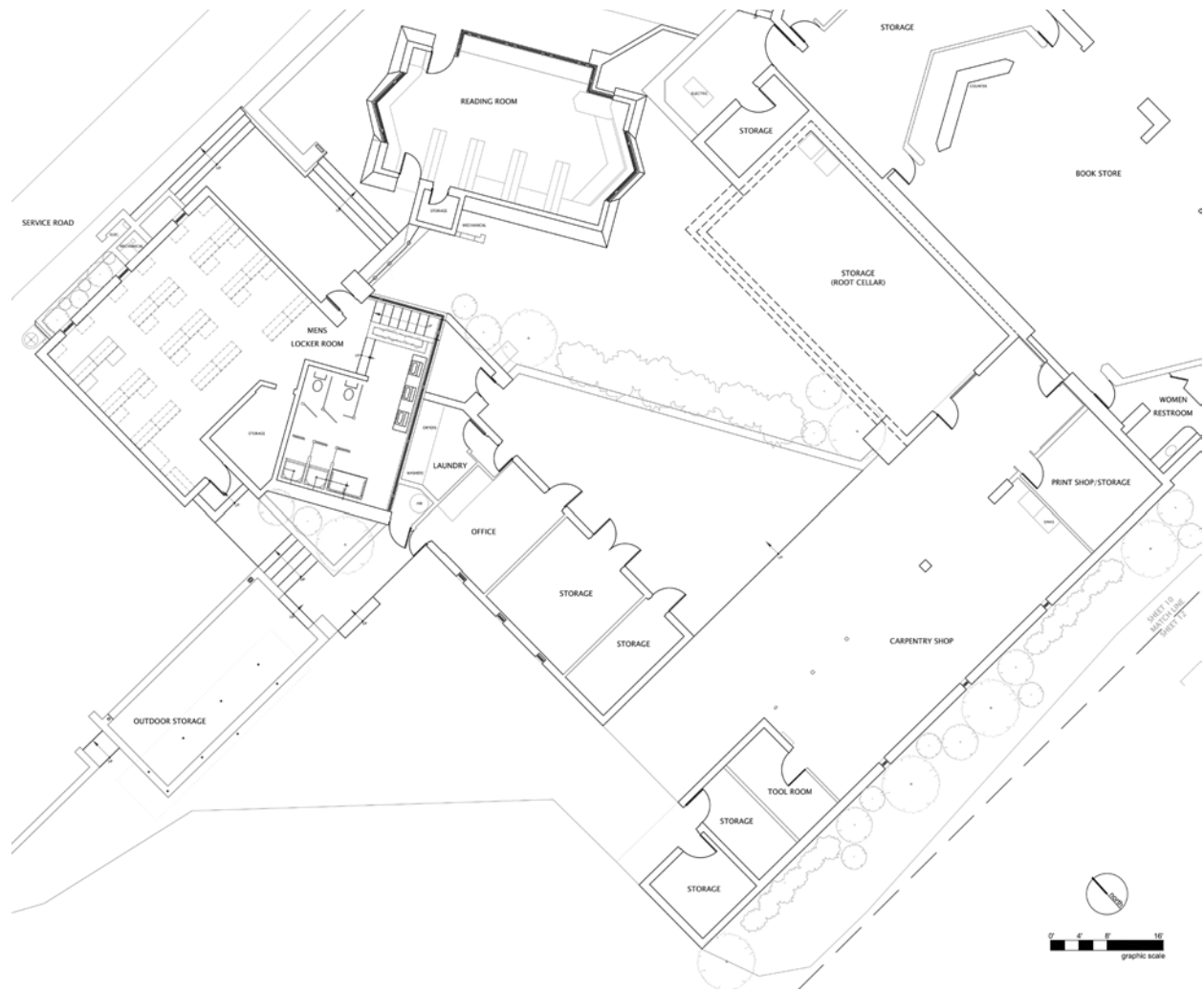


Figure 11-144 - Reading Room Floor Plan



Figure 11-145 - Reading Room exterior, 2014 (Harboe Architects).



Figure 11-146 - Reading Room exterior, 2015 (Harboe Architects).



Figure 11-147 - Interior of Reading Room looking northwest, 2015 (Harboe Architects).

SUN COTTAGE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The non-historic roof is to be replaced with a new liquid applied membrane. Exposed metal at the roof eaves is to be prepared and painted. All areas of damaged roof deck are to be replaced.
- Skylights
The skylights throughout the sun cottage are to be replaced.
- Louvers
Replace damaged louvers on roof top mechanical screen.
- Glazing
All glazing is to be maintained. Metal window framing is to be prepared and painted.
- Fiberglass Panels
The fiberglass panels are to be detached, all paint is to be removed, framing cleaned, and the panels are to be remounted on the building.
- Doors
All exterior doors are to be prepared and painted.

Interior Scope

- Interior of Guest Apartment
The interior of the Guest Apartment was renovated in 2014 and requires minimal work at this time. All water damaged and stained areas of the ceiling should be replaced following the roof replacement.
- Interior of Iovanna & Eve's Apartments
The interior finishes and furnishings in Iovanna's and Eve's Apartments should be preserved where possible. The worn carpet is to be replaced with new carpet that matches the color of the existing. There are select areas that require drywall repair. All water damaged and stained areas of the ceiling should be replaced following the roof replacement. Additionally, all interior woodwork and casework is to be refinished. The finish analysis is to be conducted to determine the historic finish of all wood trim and casework. The bathrooms are to be upgraded with new tile flooring.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample
- Finishes analysis (interior wood and plaster walls): 4 samples

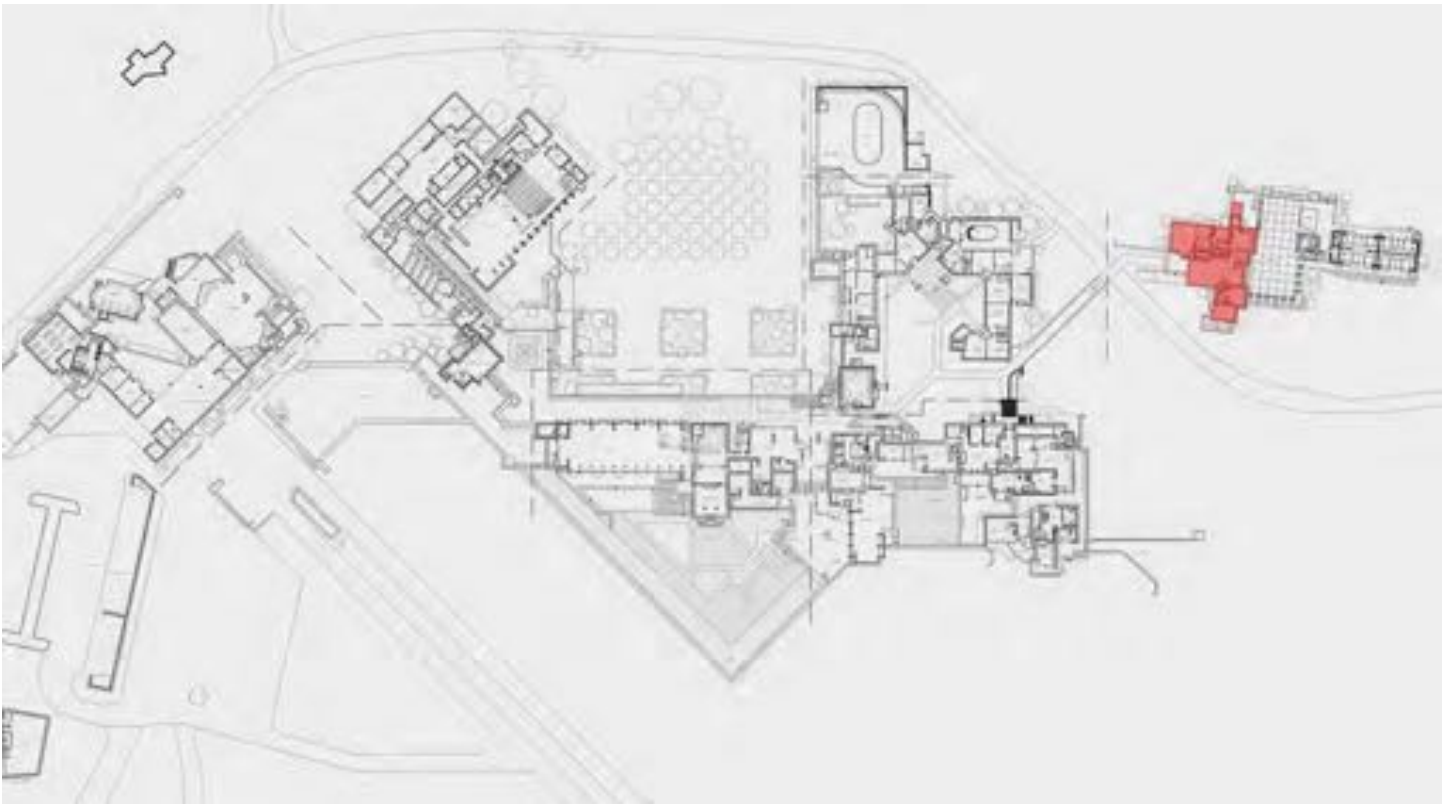


Figure 11-148 - Sun Cottage Location Plan

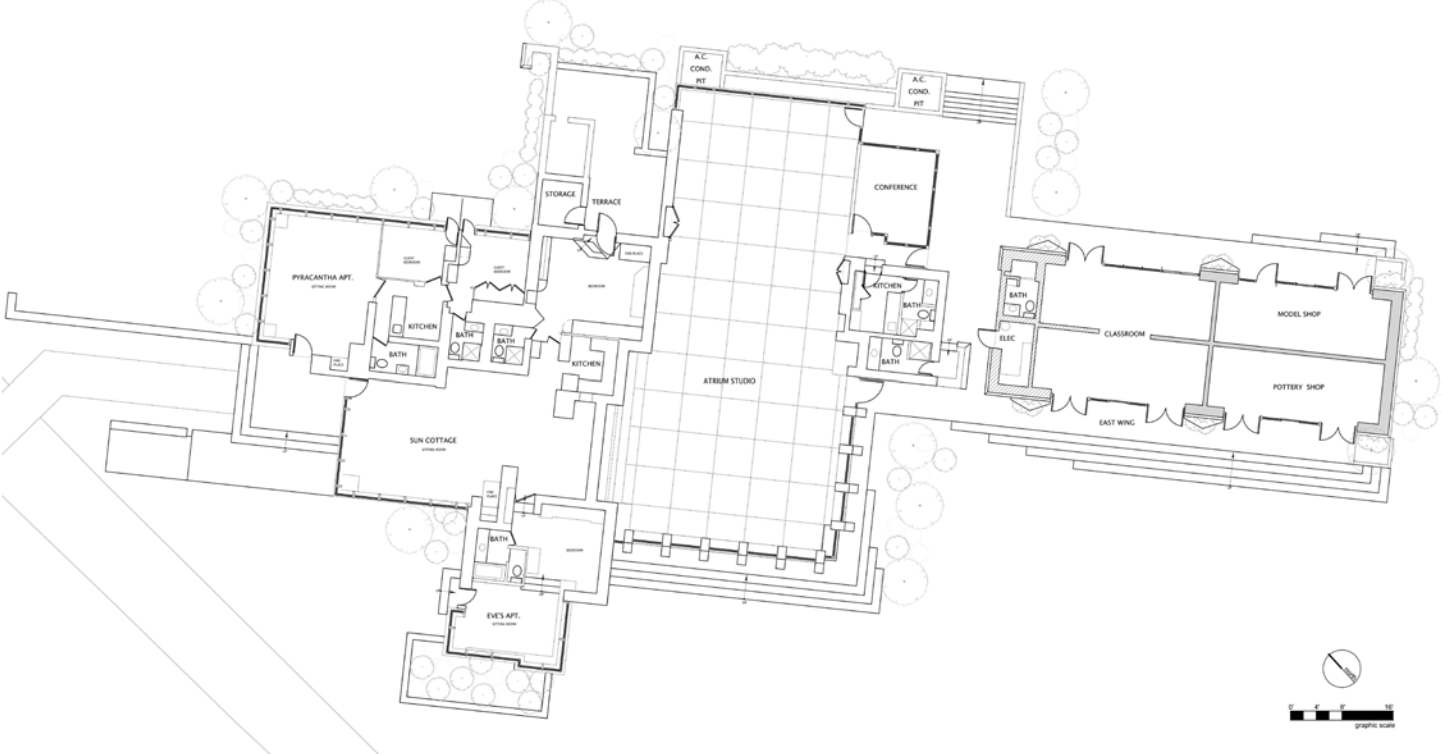


Figure 11-149 - Sun Cottage Floor Plan



Figure 11-150 - Exterior of Sun Cottage, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-151 - Looking northeast at Sun Cottage, 2014 (Harboe Architects).



Figure 11-152 - Looking north at Sun Cottage, 2014 (Harboe Architects).



Figure 11-153 - Metal fascia and roof of Sun Cottage, 2014 (Harboe Architects).



Figure 11-154 - Interior of lovanna's living room in Sun Cottage, 2014 (Harboe Architects).



Figure 11-155 - Interior of lovanna's living room in Sun Cottage, 2014 (Harboe Architects).



Figure 11-156 - Interior of Eve's apartment in Sun Cottage, 2014 (Harboe Architects).



Figure 11-157 - Interior of Pyracantha Apartment, 2014 (Harboe Architects).

PAVILION

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof Structure
The steel roof structure is to remain and be painted as necessary for continued maintenance.
- Roof Surface
The existing non-historic acrylic roof system with interior canvas panels is to be maintained. As materials deteriorate or become damaged they should be replaced with new materials to match the existing. If at some point in the near future it is determined that the roof should be replaced, a new roof with rigid, translucent panels should be installed. The new roof should retain the same character and appearance as the current roof.
- Flat Roofs
The existing flat roofs are to be replaced with a new liquid applied membrane. Exposed metal at the roof eaves is to be prepared and painted. There is extensive damage to the decking on the flat roofs on all sides of the Pavilion. All existing plywood decking is to be replaced with new plywood decking.
- Doors
The exterior doors are to be maintained and repainted as needed. Remove the plywood panel to the west of the main entry doors and install a new painted flush metal door in the opening.

Interior Scope

- Canvas Panels
The canvas panels in the entry corridor are to be replaced with new canvas panels.
- City by the Sea Mural
The mural is to be carefully cleaned and conserved.
- Laotse Quote
The gold panel with the Laotse quote on it is to be carefully cleaned and conserved.
- Finishes, Fixtures & Furnishings
The curtains are stained and worn and are to be replaced. All other interior finishes, fixtures, and furnishings in the Pavilion requires continued cleaning and maintenance.
- Lighting
The existing lighting system is to be replaced with a new lighting system. The new lighting is to be carefully designed to enhance the quality of light for performances in the Pavilion.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new exposed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample
- Finishes analysis: 6 samples

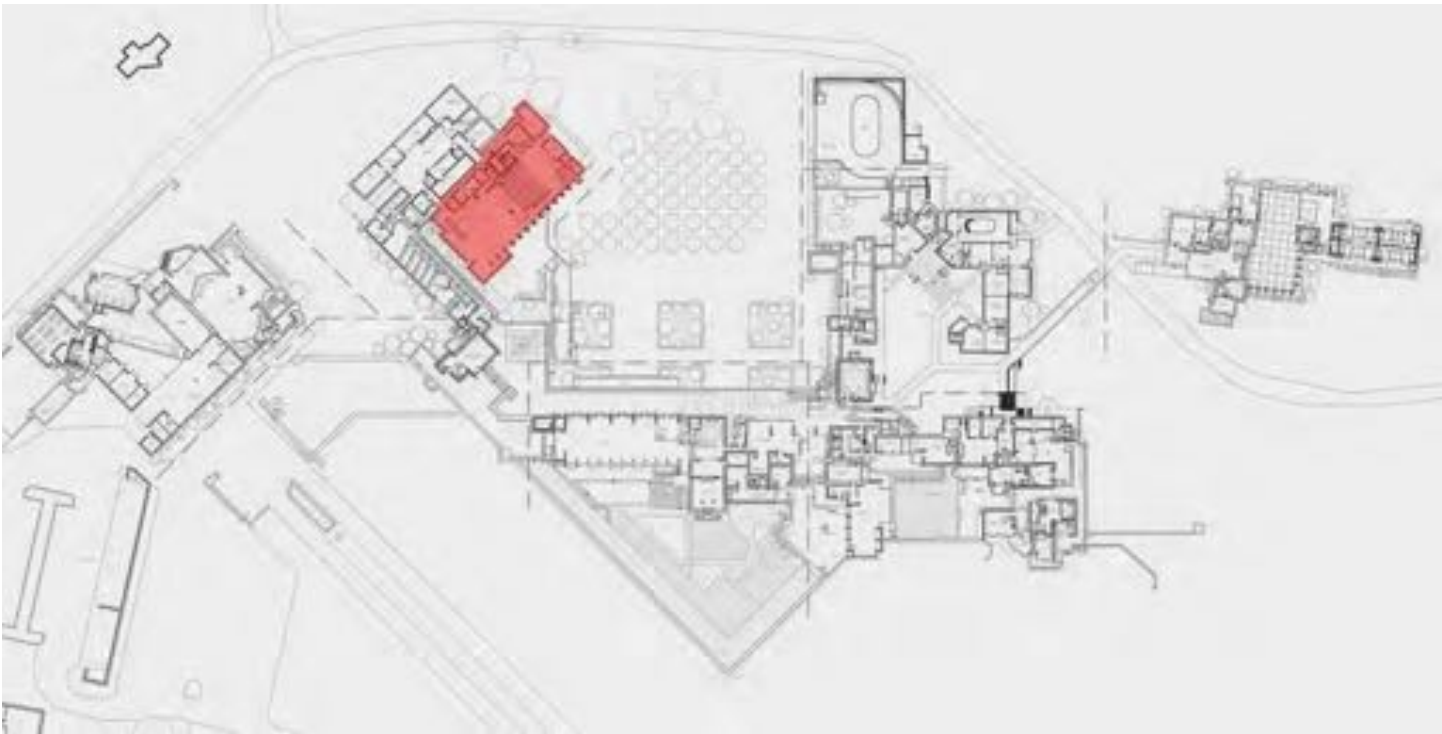


Figure 11-158 - Pavilion Location Plan

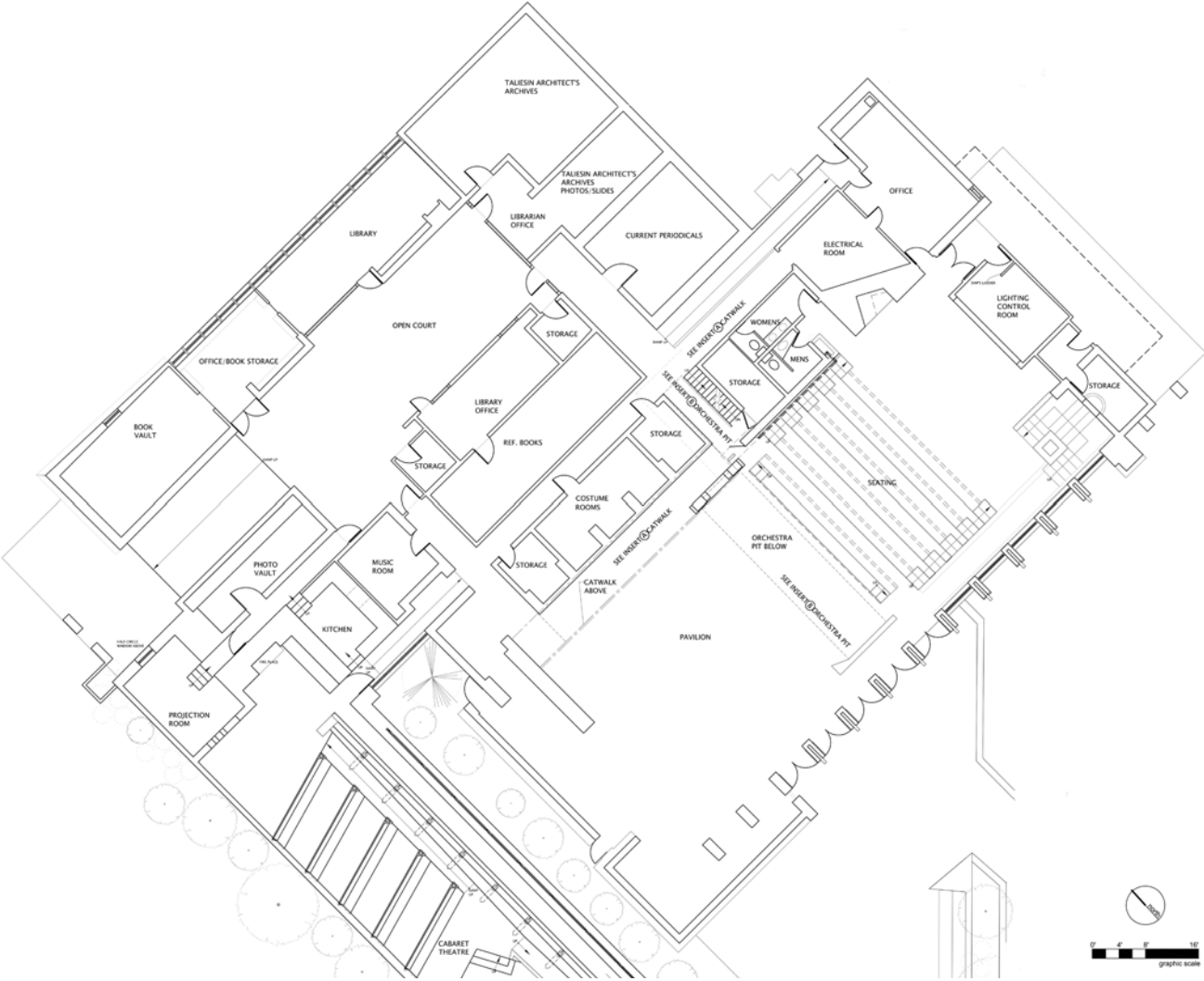


Figure 11-159 - Pavilion Floor Plan



Figure 11-160 - Pavilion roof, 2014 (Harboe Architects).



Figure 11-161 - Detail of Pavilion roof, 2014 (Harboe Architects).



Figure 11-162 - East side of the Pavilion, 2014 (Harboe Architects).



Figure 11-163 - Damaged soffit under flat roof on east side of the Pavilion, 2014 (Harboe Architects).



Figure 11-164 - South entry doors on the Pavilion, 2014 (Harboe Architects).



Figure 11-165 - Interior of the Pavilion, 2014 (Harboe Architects).



Figure 11-166 - Interior of the Pavilion, 2014 (Harboe Architects).



Figure 11-167 - Interior of the Pavilion, 2014 (Harboe Architects).

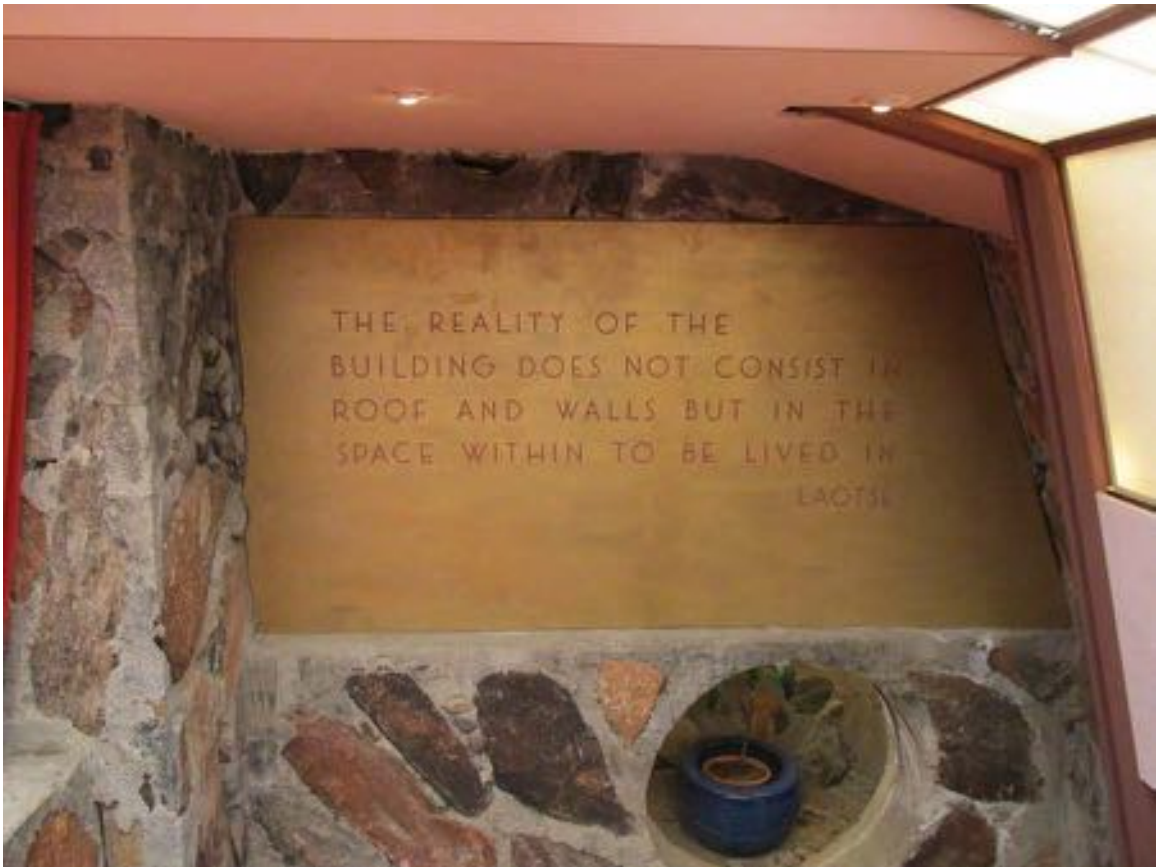


Figure 11-168 - Laotse quote, 2015 (Harboe Architects).



Figure 11-169 - Pavilion office, 2015 (Harboe Architects).

LIBRARY

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented. The north and east walls of the library are to be excavated and water proofed.
- Roof
The non-historic roof is to be replaced with a new liquid applied membrane. Exposed metal at the roof eaves is to be prepared and painted. The existing roof deck is to be replaced with a new concrete and metal roof deck.
- Glazing
The existing glazing in the Library is in good condition and is to remain. Prepare and paint all exposed metal frames.
- Doors
The existing doors in the Library are in good condition and are to remain. Prepare and paint all exposed wood and metal on the doors and frames.

Interior Scope

- Walls
Damaged sections of interior walls are to be replaced to match the existing adjacent walls.
- Ceiling
A new suspended plaster ceiling is to be installed throughout the library.
- Finishes, Fixtures & Furnishings
The interior finishes, fixtures and furnishings in the Library can be updated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

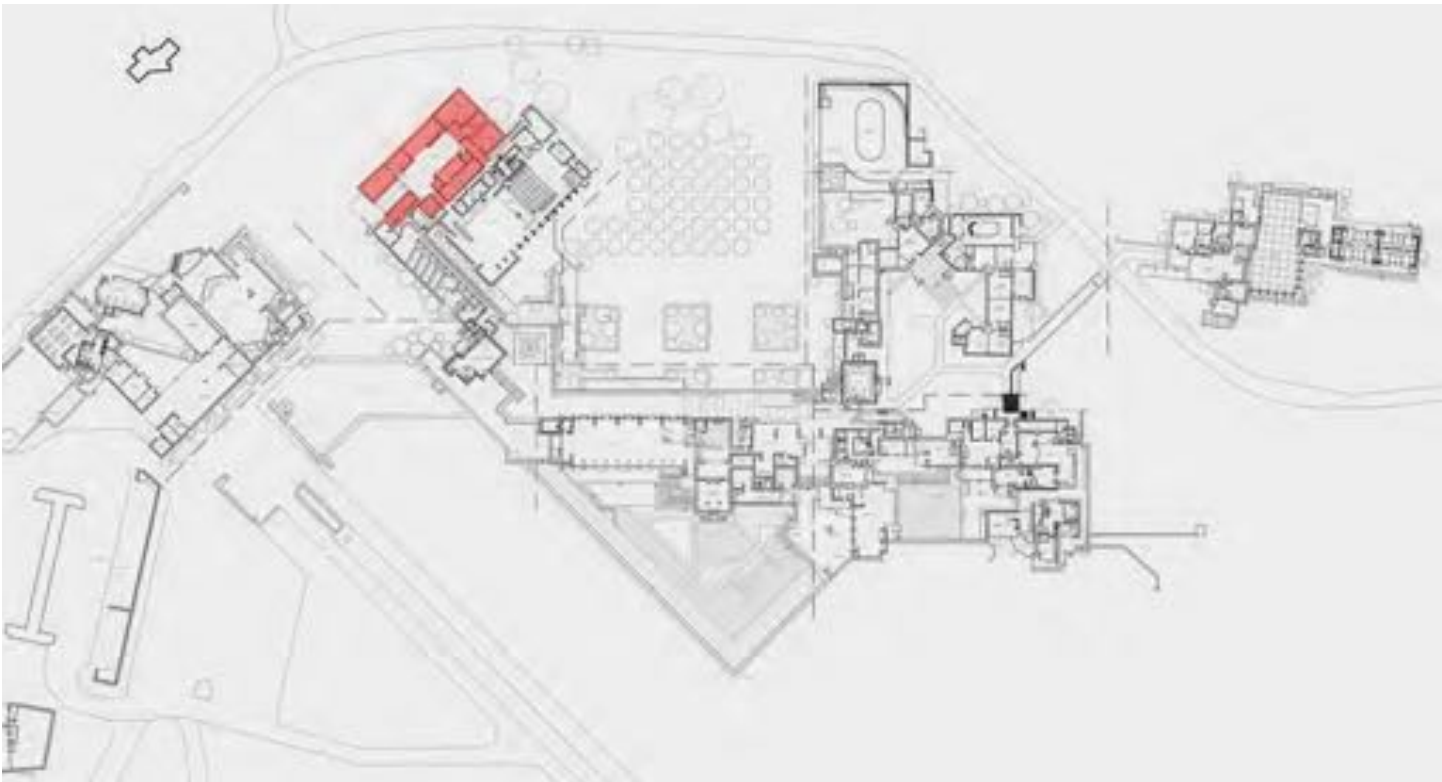


Figure 11-170 - Library Location Plan

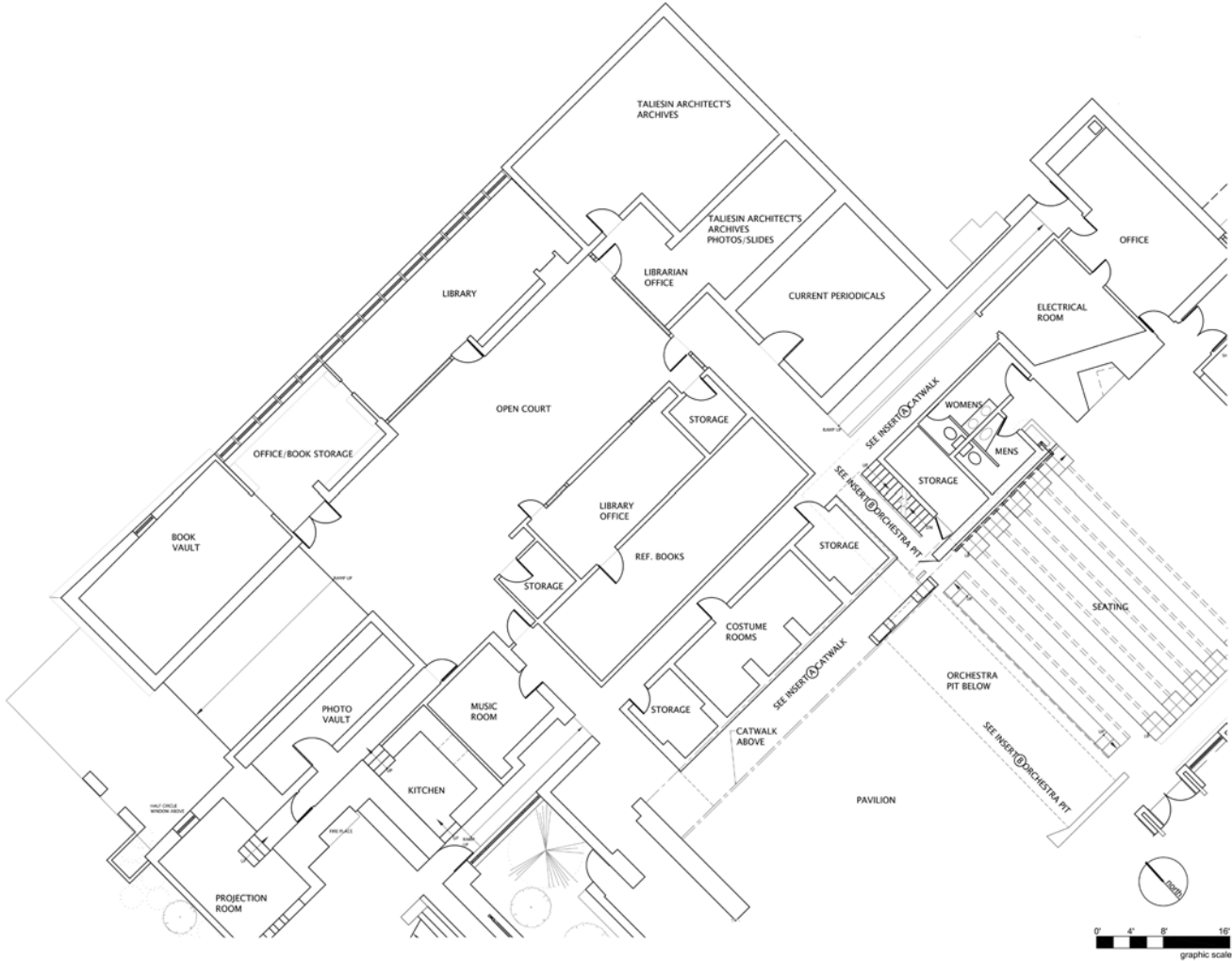


Figure 11-171 - Library Floor Plan



Figure 11-172 - Library courtyard, 2015 (Harboe Architects).



Figure 11-173 - In Library courtyard looking toward entrance, 2015 (Harboe Architects).



Figure 11-174 - Inside library, 2015 (Harboe Architects).



Figure 11-175 - Book vault, 2015 (Harboe Architects).



Figure 11-176 - Library office, 2015 (Harboe Architects).

ATRIUM

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof is to be replaced with a new liquid applied membrane. Exposed metal at the roof eaves is to be prepared and painted.
The damaged roof deck above the southwest portion of the Atrium is to be repaired.
- Skylights
The pyramid skylight is to be replaced with a new skylight to match the dimensions and profile of the existing skylight. All other skylights need to be evaluated.
- Glazing
The existing glass windows in the Atrium are in good condition and are to remain.
The fiberglass panels at the clerestory are to be carefully removed, cleaned and reset in place. Damaged panels are to be replaced with new fiberglass panels that match the color, translucency and texture of the existing panels.
- Doors
The existing doors in the Atrium are in good condition and are to remain.
- Concrete & Glass Panels
All damaged sections of concrete are to be patched with new concrete that matches the mix, color and texture of the existing concrete. Broken pieces of colored glass are to be replaced with new pieces of colored glass.

Interior Scope

- Interior Renovations
The interior can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

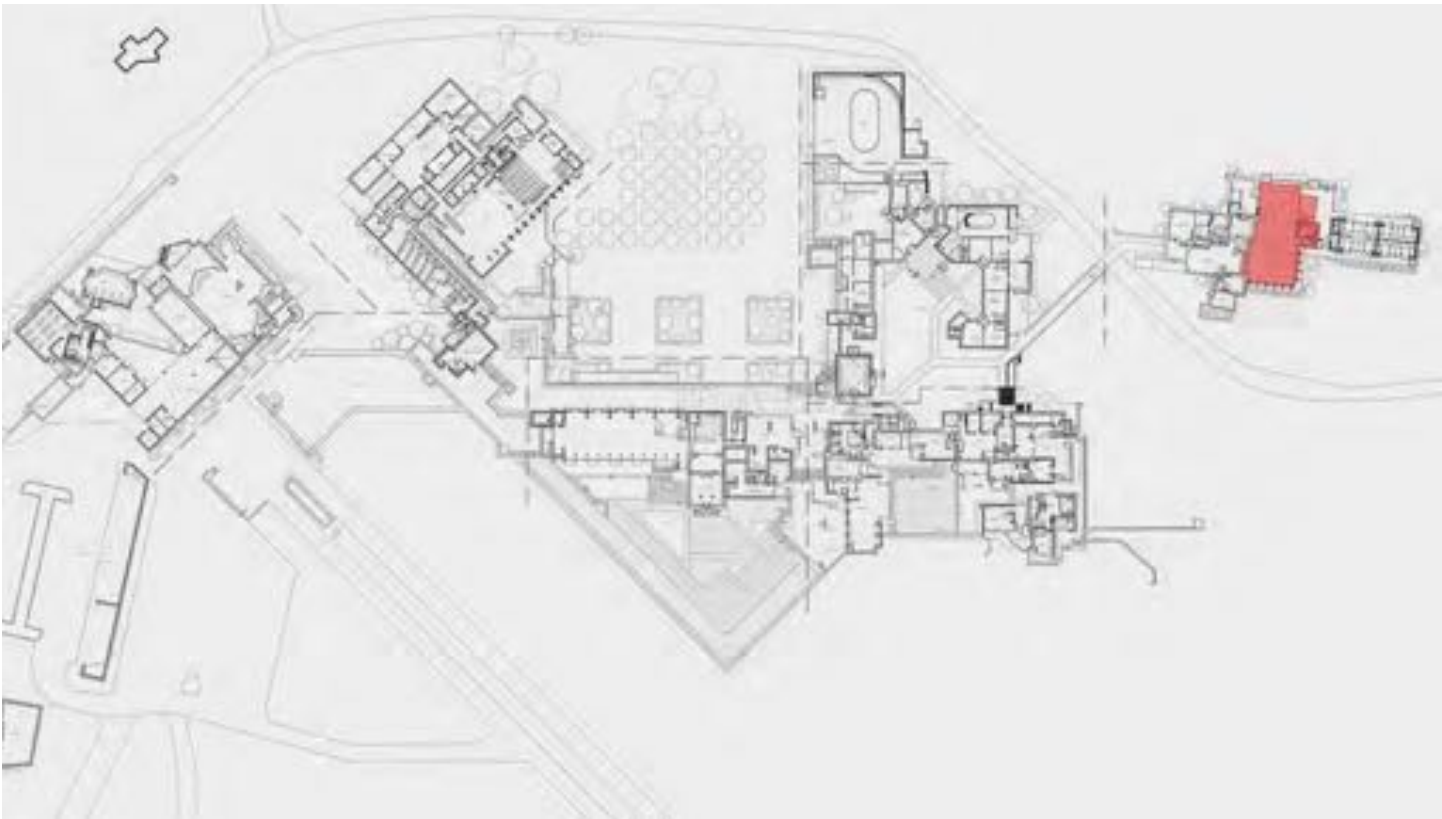


Figure 11-177 - Atrium Location Plan

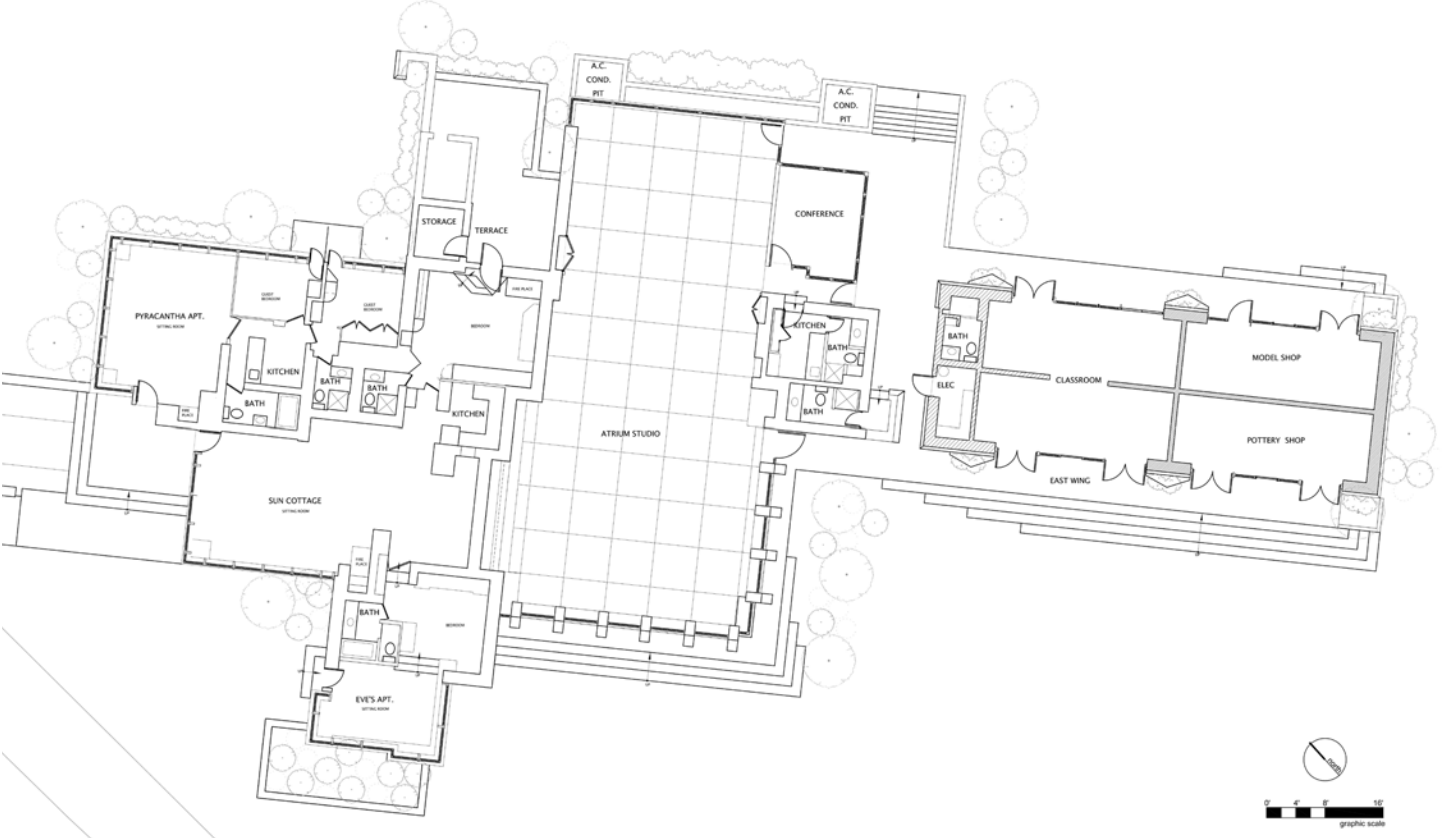


Figure 11-178 - Atrium Floor Plan



Figure 11-179 - Interior of Atrium looking at decorative concrete and glass panels, ca. 1962 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-180 - Exterior of Atrium looking northeast, 2014 (Harboe Architects).



Figure 11-181 - Interior of Atrium, 2014 (Harboe Architects).



Figure 11-182 - Interior of Atrium, 2014 (Harboe Architects).

EAST WING

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement concrete in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof is to be replaced with a new liquid applied membrane. Exposed metal at the roof eaves is to be prepared and painted.
- Glazing
The existing glazing in the East Wing is in good condition and is to remain.
- Doors
The existing doors are to be maintained.

Interior Scope

- Interior Renovations
The interior of the East Wing can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

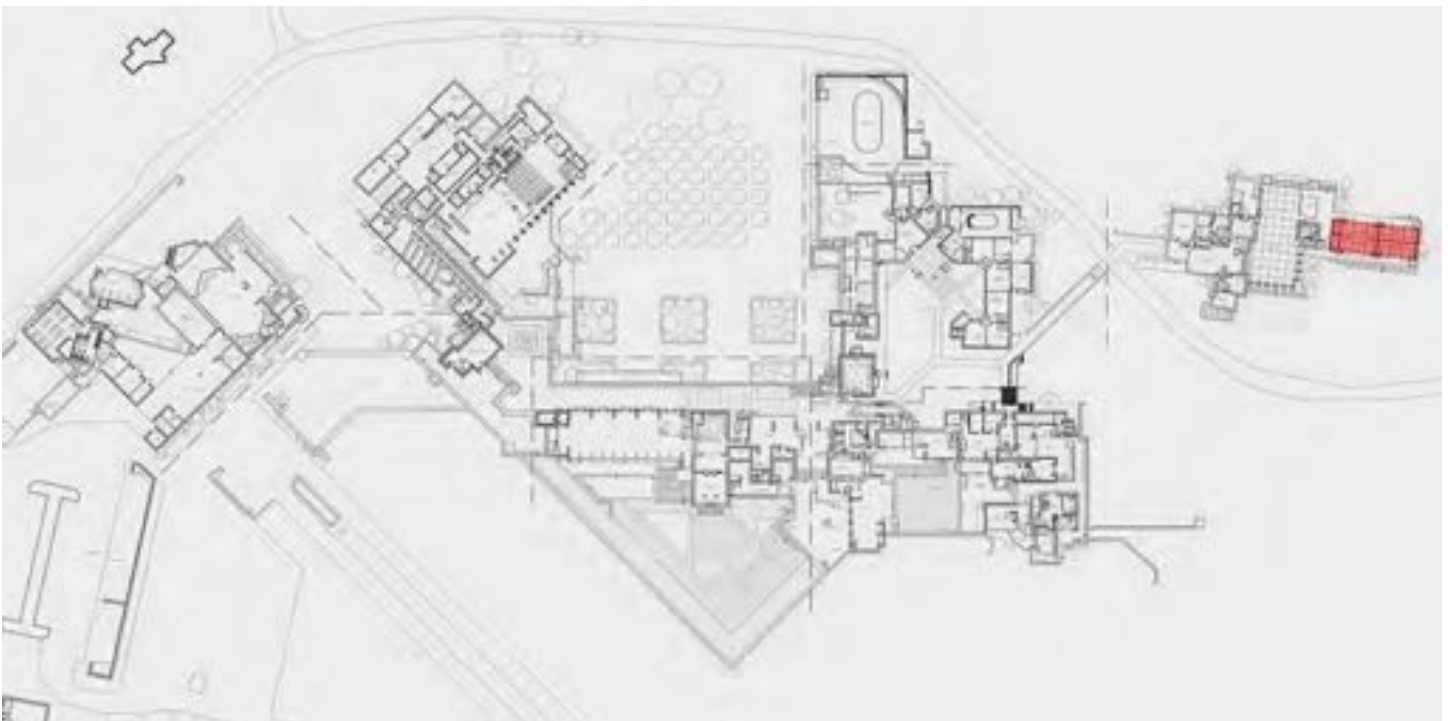


Figure 11-183 - East Wing Location Plan

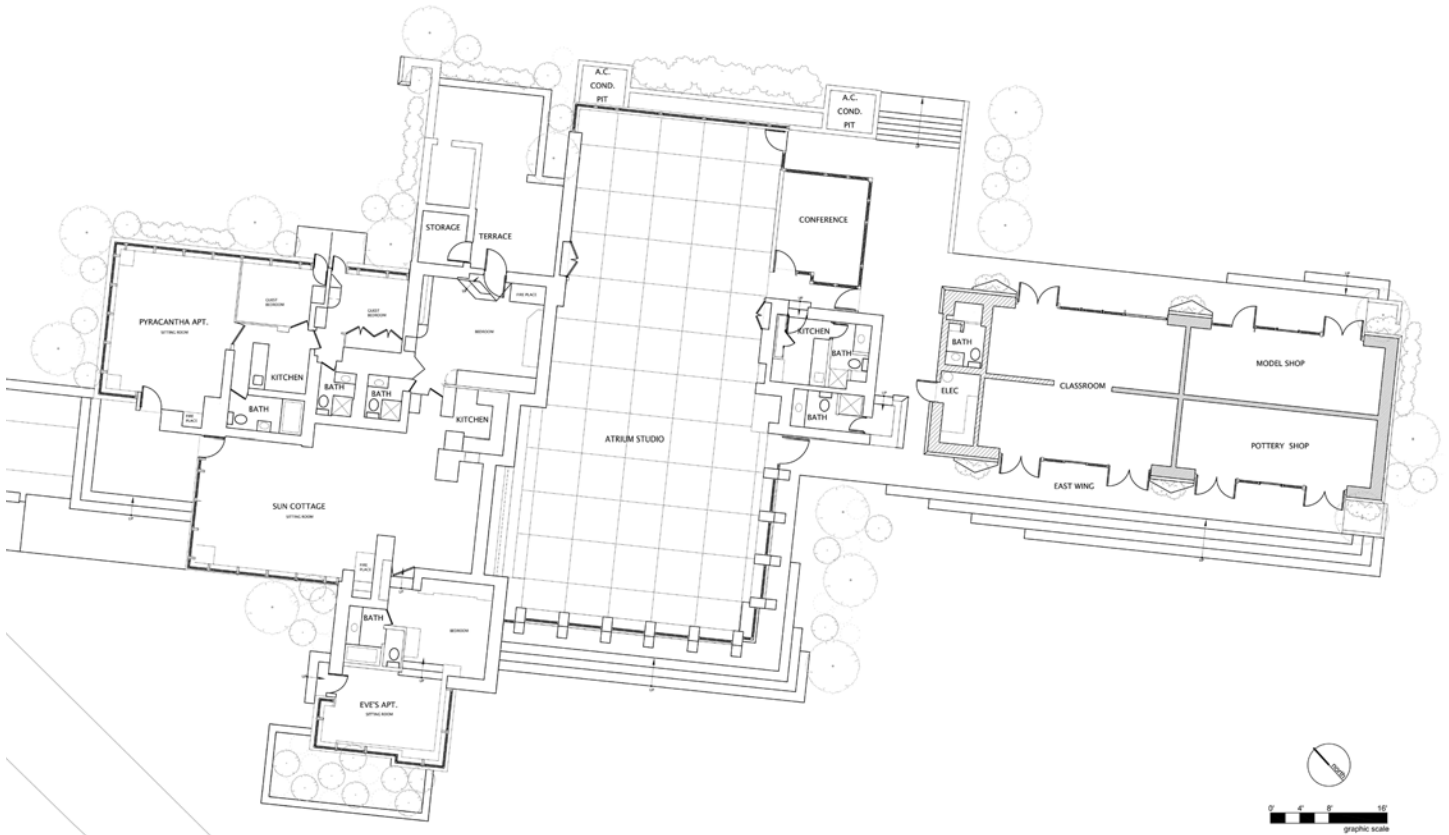


Figure 11-184 - East Wing Floor Plan



Figure 11-185 - Looking east at the East Wing, 2014 (Harboe Architects).



Figure 11-186 - Looking southeast at the East Wing, 2014 (Harboe Architects).



Figure 11-187 - Interior of the East Wing, 2014 (Harboe Architects).

FINANCE OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. The painted metal fascia and dentils at the roof eaves are to be prepared and painted.
- Soffits
Cut out and replace damaged sections of the exterior soffits with new painted textured plaster.
- Tile Paving
The exterior tile paving in the courtyard outside of the Finance Office is to be replaced with new tile to match the existing in size, color and surface finish.
- Glazing
The existing glazing in the Finance Office is in good condition and is to remain.
- Doors
The existing doors in the Finance Office are in good condition and are to remain. Repair holes in doors and prepare and paint all exposed metal on the doors and frames.
- Skylight
The skylight is in good condition and is to remain.
- Courtyard Gates
The gates are in good condition and are to remain. The steel framing on the gates is to be prepared and painted.

Interior Scope

- Interior Renovations
The interior spaces of the Finance Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None



Figure 11-188 - Finance Office Location Plan

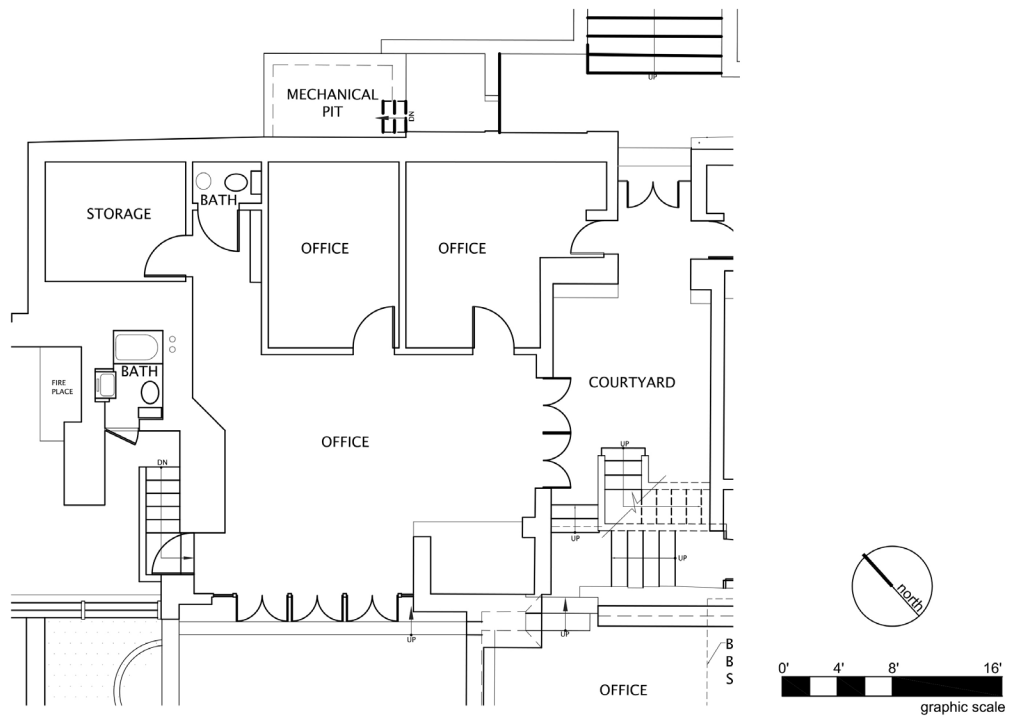


Figure 11-189 - Finance Office Floor Plan



Figure 11-190 - Courtyard outside the Finance Office, 2015 (Harboe Architects).



Figure 11-191 - Exterior of Finance Office (Harboe Architects).



Figure 11-192 - Opening to courtyard outside of the Finance Office, 2015 (Harboe Architects).



Figure 11-193 - Metal and glass gate at opening to courtyard outside of Finance Office, 2015 (Harboe Architects).



Figure 11-194 - Metal and glass gate at opening to courtyard outside of Finance Office, 2015 (Harboe Architects).



Figure 11-195 - View from lower garden to south side of the Finance Office, 2015 (Harboe Architects).



Figure 11-196 - Missing fascia on backside of trellis on south side of the Finance Office, 2015 (Harboe Architects).



Figure 11-197 - Interior of Finance Offices, 2015 (Harboe Architects).



Figure 11-198 - Interior of Finance Offices, 2015 (Harboe Architects).

DEKOVEN HILL OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. Painted wood fascia at the roof eaves is to be prepared and painted.
- Soffits
The soffits are to be prepared and painted.
- Concrete Paving
Damaged sections of the exterior concrete paving on the east side of the office are to be removed and replaced with new concrete paving to match the existing adjacent concrete.
- Glazing
The existing glazing in the Dekoven Hill Office is in good condition and is to remain.
- Doors
The existing doors in the Dekoven Hill Office are in good condition and are to remain. Prepare and paint all exposed metal on the doors and frames.
- Duct Enclosure
The duct enclosure from the DeKoven Hill Office up to the Tower Office is to be replaced.

Interior Scope

- Interior Renovations
The interior spaces of the Dekoven Hill Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

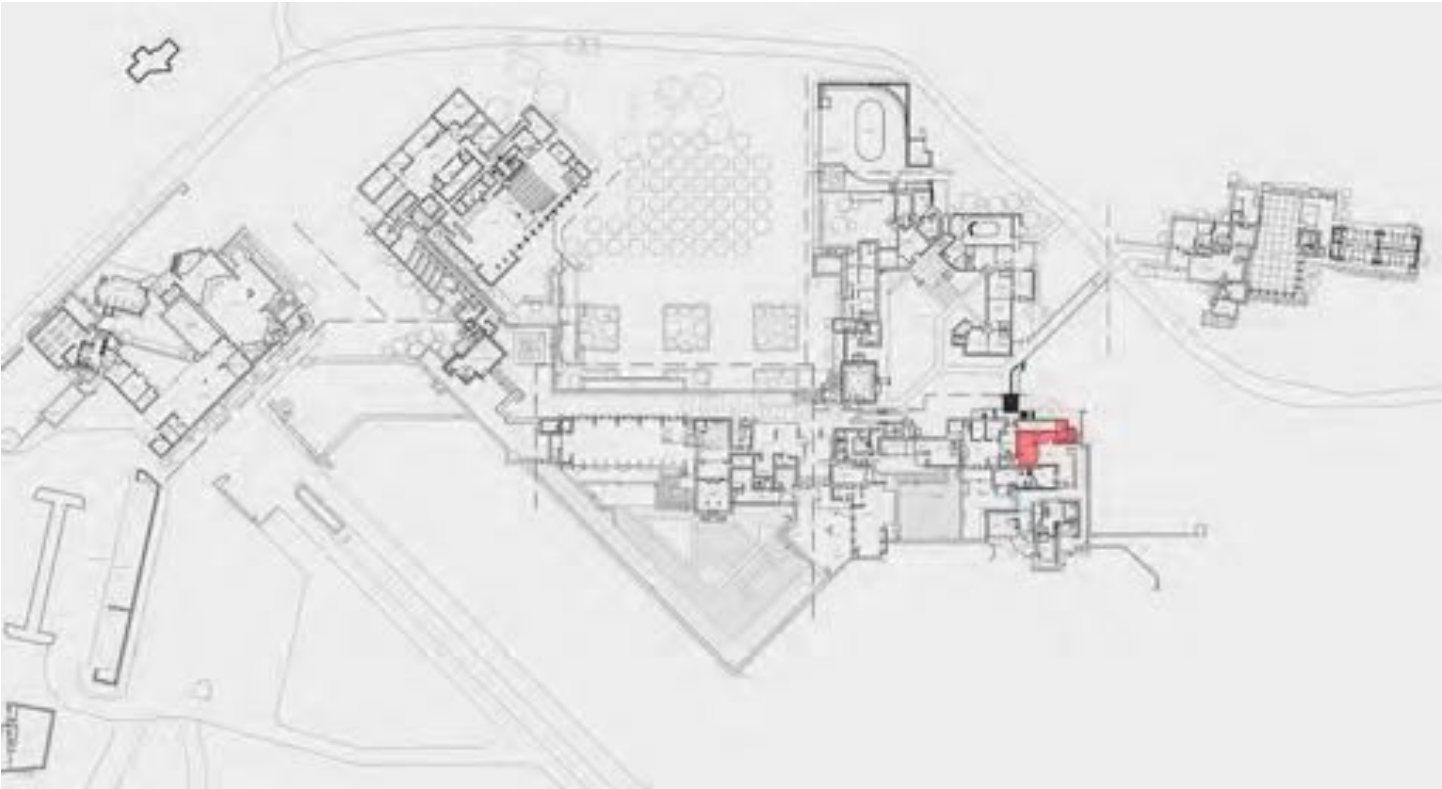


Figure 11-199 - Dekoven Hill Office Location Plan

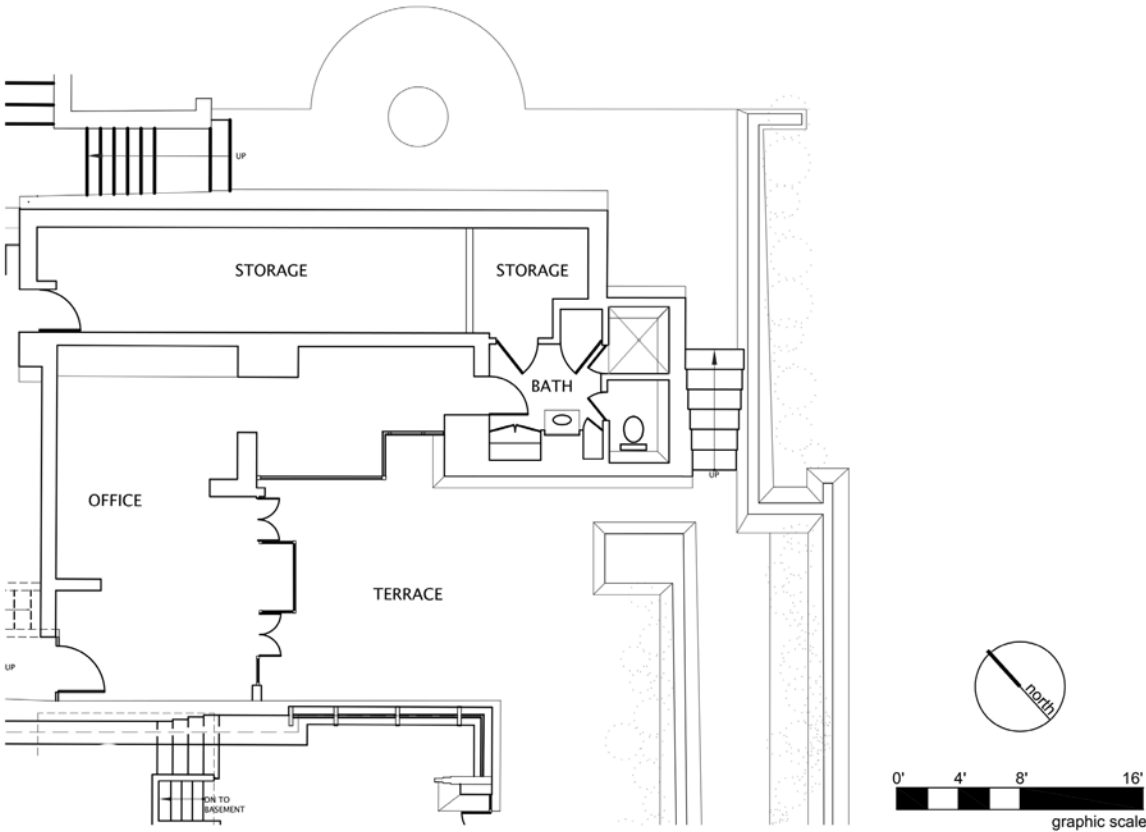


Figure 11-200 - Dekoven Hill Office Floor Plan



Figure 11-201 - Exterior of Dekoven Hill Office, 2015 (Harboe Architects).



Figure 11-202 - Terrace outside Dekoven Hill Office, 2015 (Harboe Architects).



Figure 11-203 - Exterior of Dekoven Hill Office, 2015 (Harboe Architects).

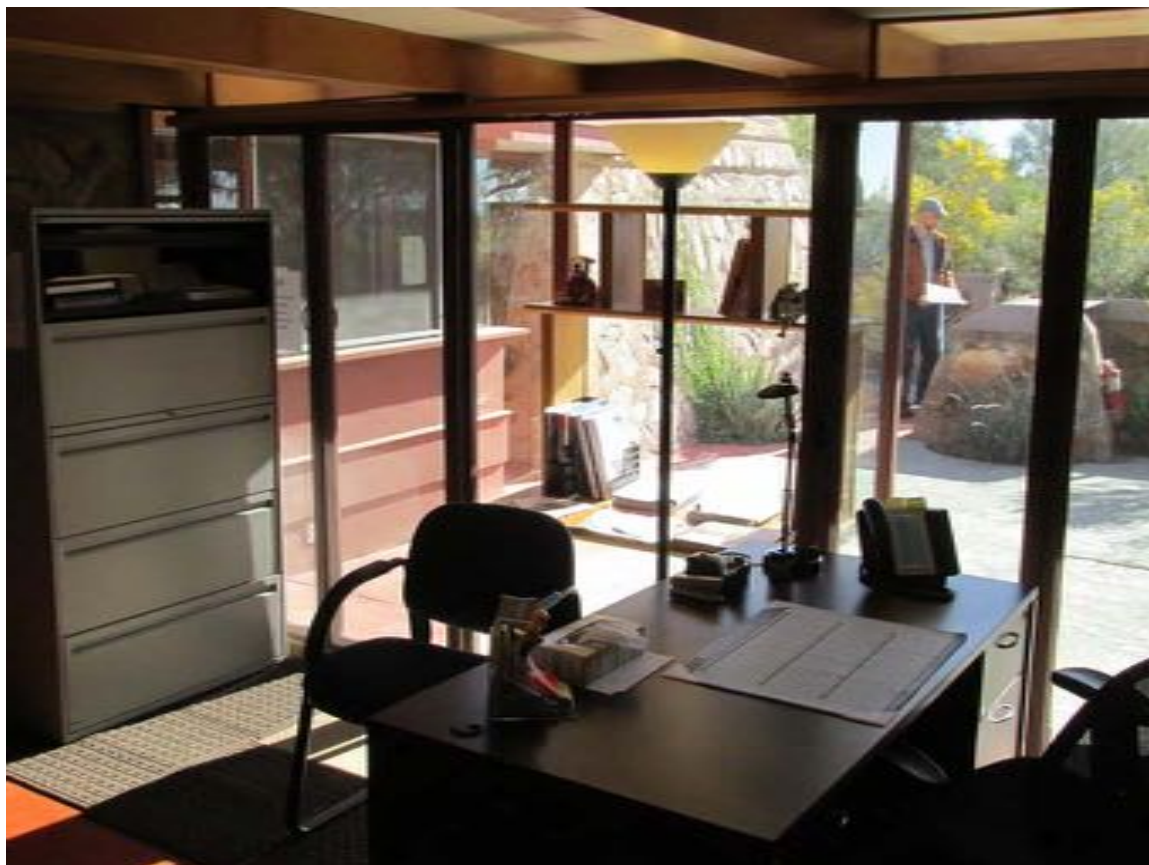


Figure 11-204 - Interior of Dekoven Hill Office, 2015 (Harboe Architects).

DR. JOE OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented. Damaged sections of the concrete wall cap on the wall surrounding the terrace outside the lower room are to be removed and patched with new concrete to match the appearance, color, and finish of the existing adjacent concrete.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. Painted wood beams and fascia at the roof eaves is to be prepared and painted.
- Soffits
The soffits are to be prepared and painted.
- Concrete Paving
The exterior concrete paving is in good condition and is to remain.
- Glazing
The existing glazing in the Dr. Joe Office is in good condition and is to remain. Remove the film on the north clerestory windows.
- Doors
The existing doors in the Dr. Joe Office are in good condition and are to remain. Prepare and paint all exposed metal on the doors and frames.

Interior Scope

- Interior Renovations
The interior spaces of the Dr. Joe Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None



Figure 11-205 - Dr. Joe Office Location Plan

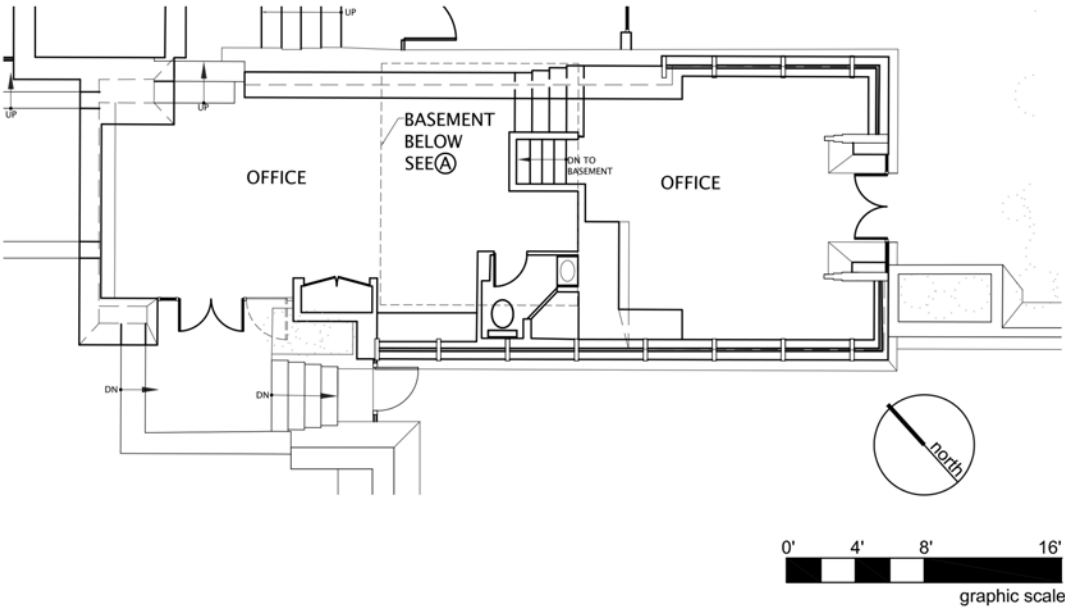


Figure 11-206 - Dr. Joe Office Floor Plan



Figure 11-207 - Exterior of Dr. Joe Office, 2015 (Harboe Architects).



Figure 11-208 - Exterior of Dr. Joe Office, 2015 (Harboe Architects).



Figure 11-209 - Exterior of upper level of Dr. Joe Office, 2015 (Harboe Architects).



Figure 11-210 - Roof of Dr. Joe Office, 2015 (Harboe Architects).



Figure 11-211 - Interior of Dr. Joe Office looking west at upper level, 2015 (Harboe Architects).



Figure 11-212 - Interior of Dr. Joe Office looking east at lower level, 2015 (Harboe Architects).

CLINIC OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. Painted wood fascia at the roof overhang over the south porch is to be prepared and painted.
- Soffits
Install new board and textured painted plaster at the soffit under the projecting roof over the south porch.
- Concrete Paving
Repair all damaged concrete. Patches are to match the existing adjacent concrete in color, texture, and finish.
- Glazing
The existing glazing in the Clinic Office is in good condition and is to remain.
- Doors
The existing doors in the Clinic Office are in good condition and are to remain. Prepare and paint all exposed metal on the doors and frames.

Interior Scope

- Interior Renovations
The interior spaces of the Clinic Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None



Figure 11-213 - Clinic Office Location Plan

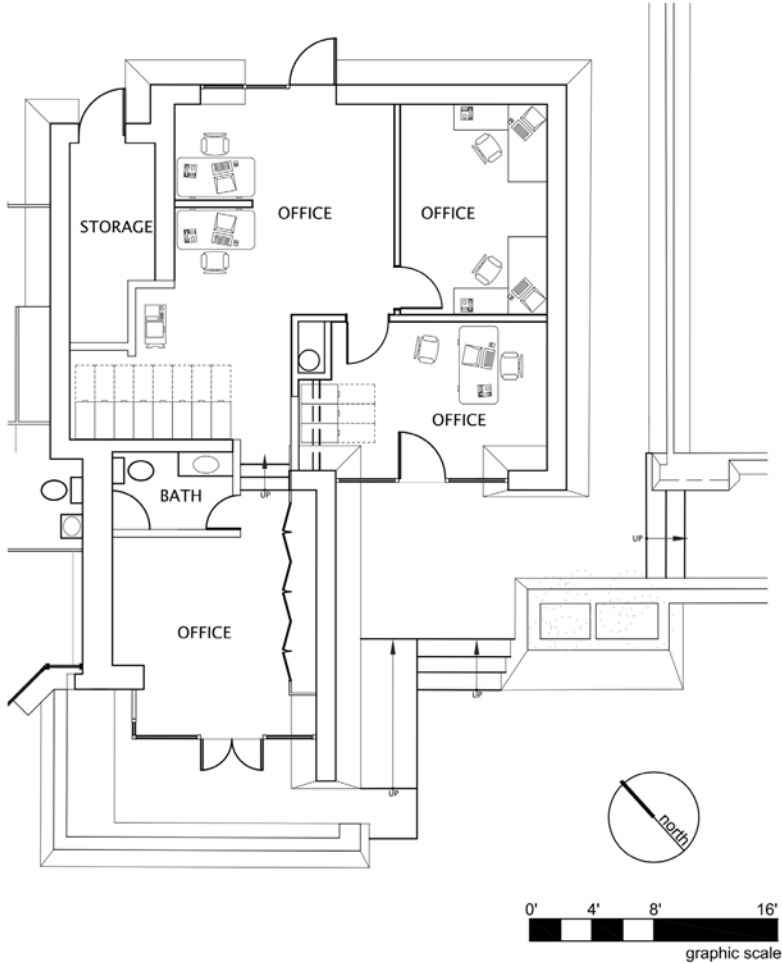


Figure 11-214 - Clinic Office Floor Plan



Figure 11-215 - South facade of Clinic Office, 2015 (Harboe Architects).



Figure 11-216 - South facade of Clinic Office, 2015 (Harboe Architects).



Figure 11-217 - Roof of Clinic Office, 2015 (Harboe Architects).



Figure 11-218 - North facade of Clinic Office, 2015 (Harboe Architects).



Figure 11-219 - Interior of Clinic Office looking northeast, 2015 (Harboe Architects).



Figure 11-220 - Interior of Clinic Office looking southwest, 2015 (Harboe Architects).

CARNEY OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced.
- Soffits
The soffits are to be prepared and painted.
- Concrete Paving
Repair all damaged concrete. Patches are to match the existing adjacent concrete in color, texture, and finish.
- Glazing
The existing glazing in the Carney Office is in good condition and is to remain. The one cracked glass pane in conference room is to be replaced with new clear glass.
- Doors
The existing doors in the Carney Office are in good condition and are to remain. Prepare and paint all exposed metal on the doors and frames.
- Canopies
The steel tube supports on the canopy are to be prepared and painted.

Interior Scope

- Interior Renovations
The interior spaces of the Carney Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

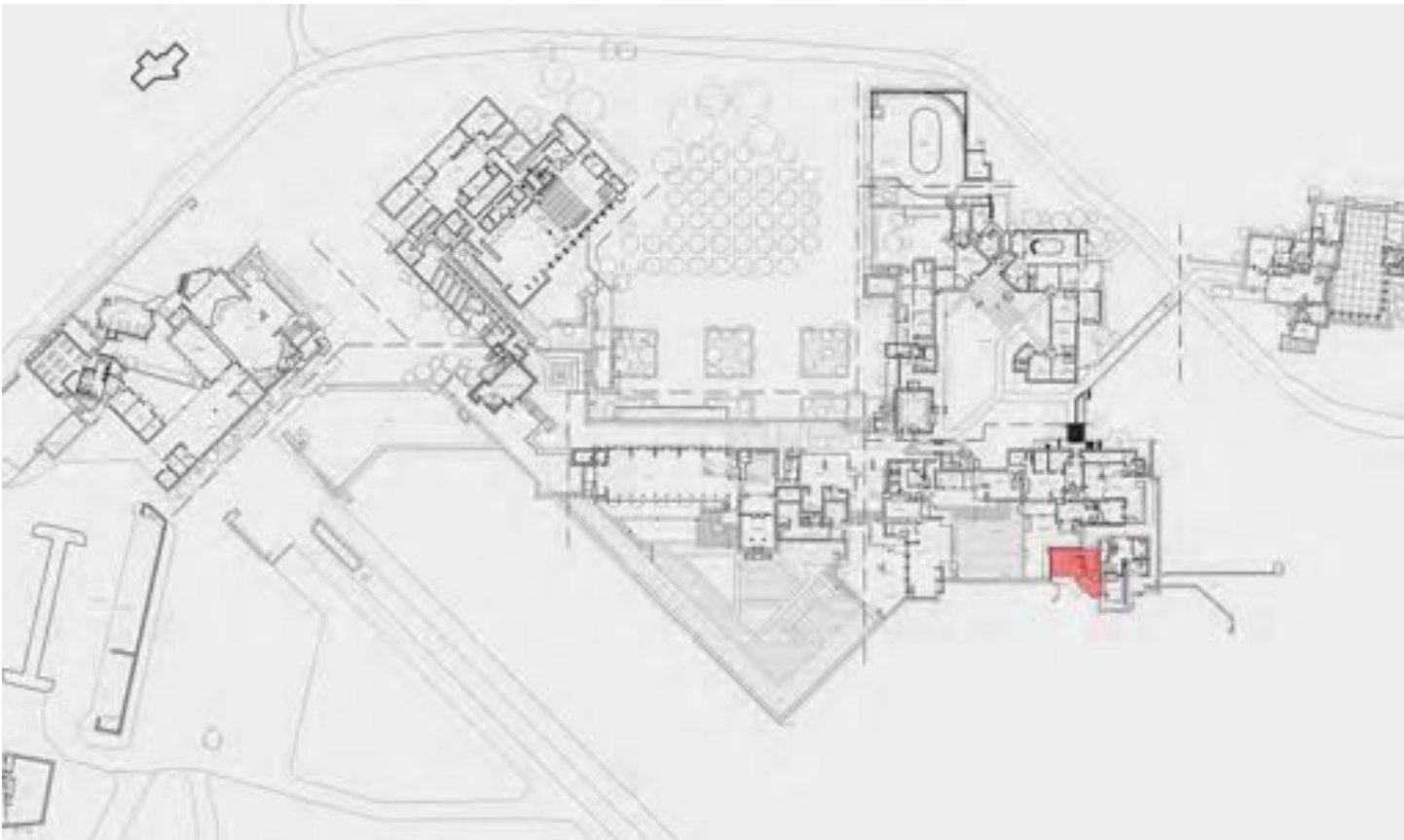


Figure 11-221 - Carney Office Location Plan

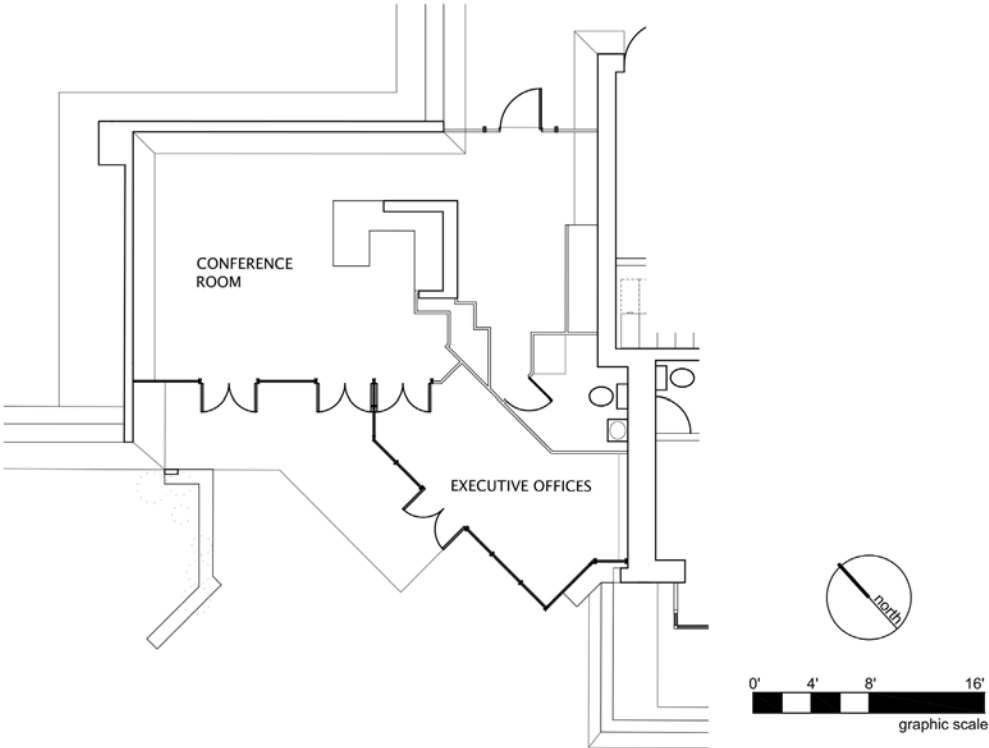


Figure 11-222 - Carney Office Floor Plan



Figure 11-223 - South facade of Carney Office, 2015 (Harboe Architects).



Figure 11-224 - Roof of Carney Office, 2015 (Harboe Architects).



Figure 11-225 - Interior of Carney Office, 2015 (Harboe Architects).



Figure 11-226 - Interior of Carney Office, 2015 (Harboe Architects).

TOWER OFFICE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Painted Plywood Walls
All damaged plywood panels are to be replaced, prepared and painted.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. The painted metal fascia at the roof eaves is to be prepared and painted.
- Soffits
Replace all exterior gypsum board at the soffits with new painted textured plaster.
- Glazing
The existing glazing in the Tower Office is in good condition and is to remain.
- Doors
The existing wood entry door in the Tower Office is in good condition and is to remain. The painted metal and glass door is to be prepared and painted. All holes are to be patched and painted.
- Terrace
Replace damaged ceramic tile with new tile that matches the size, color, and finish of the existing adjacent tile. Prepare and paint the metal railing.

Interior Scope

- Interior Renovations
The interior spaces of the Tower Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

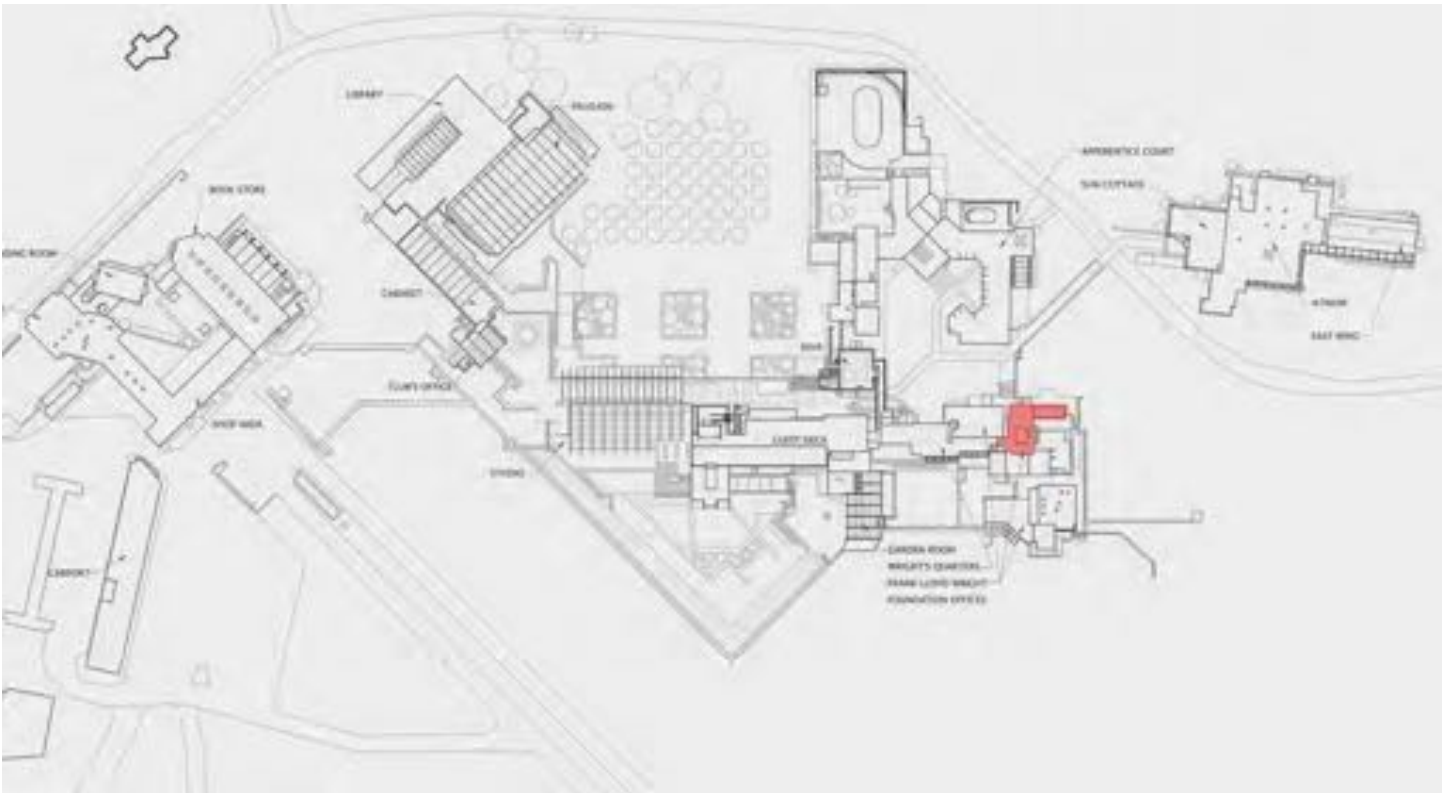


Figure 11-227 - Tower Office Location Plan

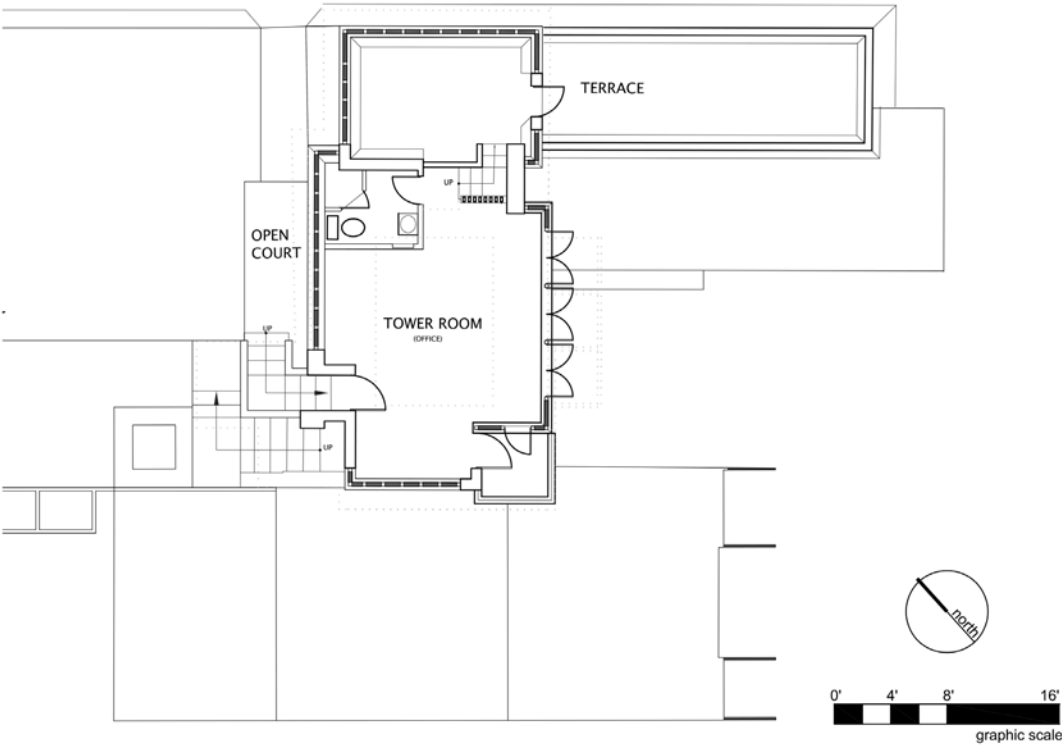


Figure 11-228 - Tower Office Floor Plan



Figure 11-229 - Looking northeast at Tower Office, 2015 (Harboe Architects).



Figure 11-230 - Looking west at Tower Office, 2015 (Harboe Architects).



Figure 11-231 - Looking at Tower Office terrace from courtyard outside Dekoven Hill Office, 2015 (Harboe Architects).



Figure 11-232 - Damage to soffit on Tower Office, 2015 (Harboe Architects).



Figure 11-233 - Tower Office terrace, 2015 (Harboe Architects).



Figure 11-234 - View of the outside of the Tower Office from terrace, 2015 (Harboe Architects).

PARKING CANOPY

- Desert Masonry Walls
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented. Clean and remove staining on concrete at “TALIESIN” sign.
- Metal Roof & Structure
Remove metal roof deck and supporting structure. Recreate canvas sunshade panels along top of wall.

Recommended Material Analysis/Testing

- Masonry/mortar analysis: 1 sample

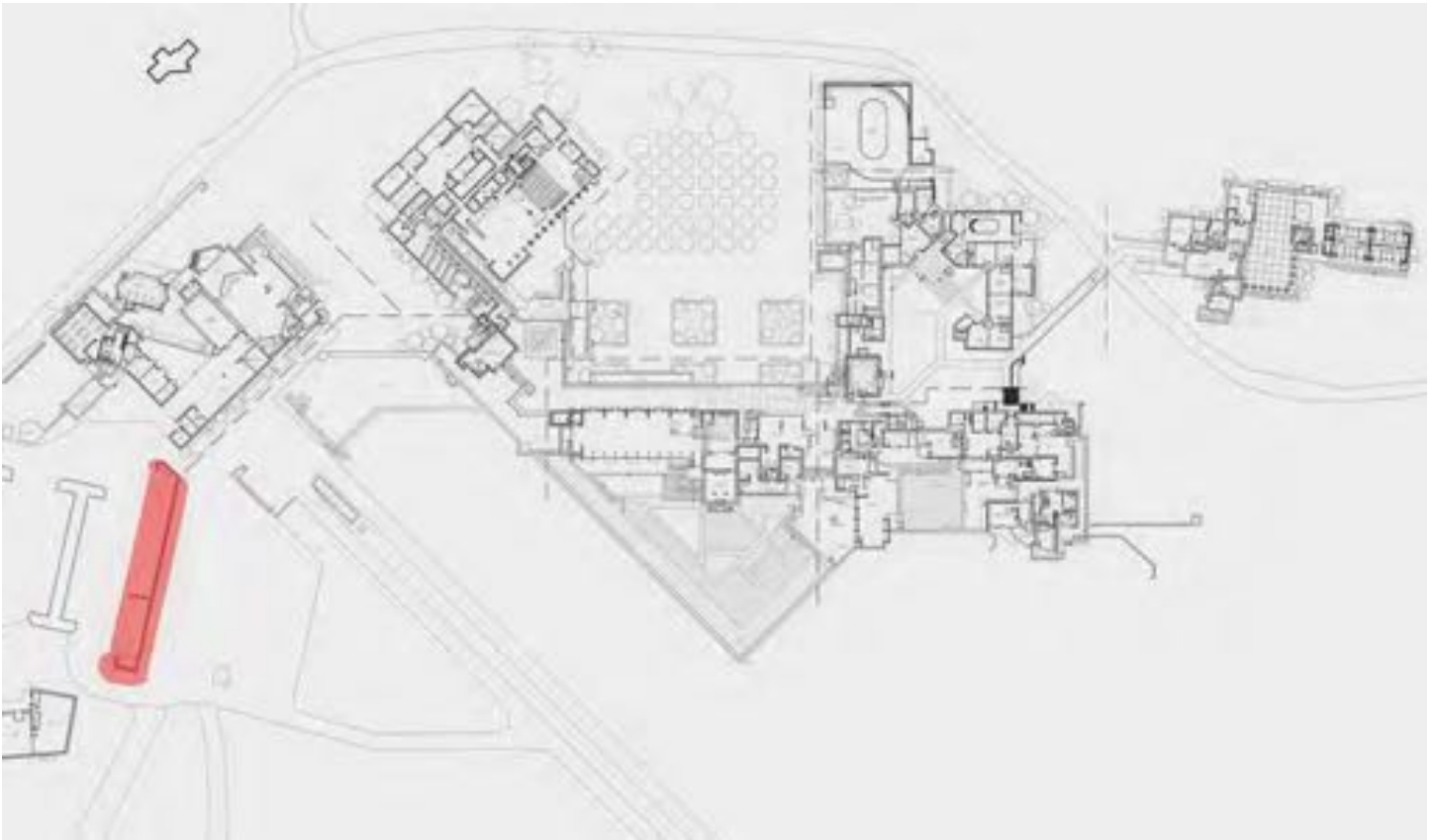


Figure 11-235 - Parking Canopy Location Plan

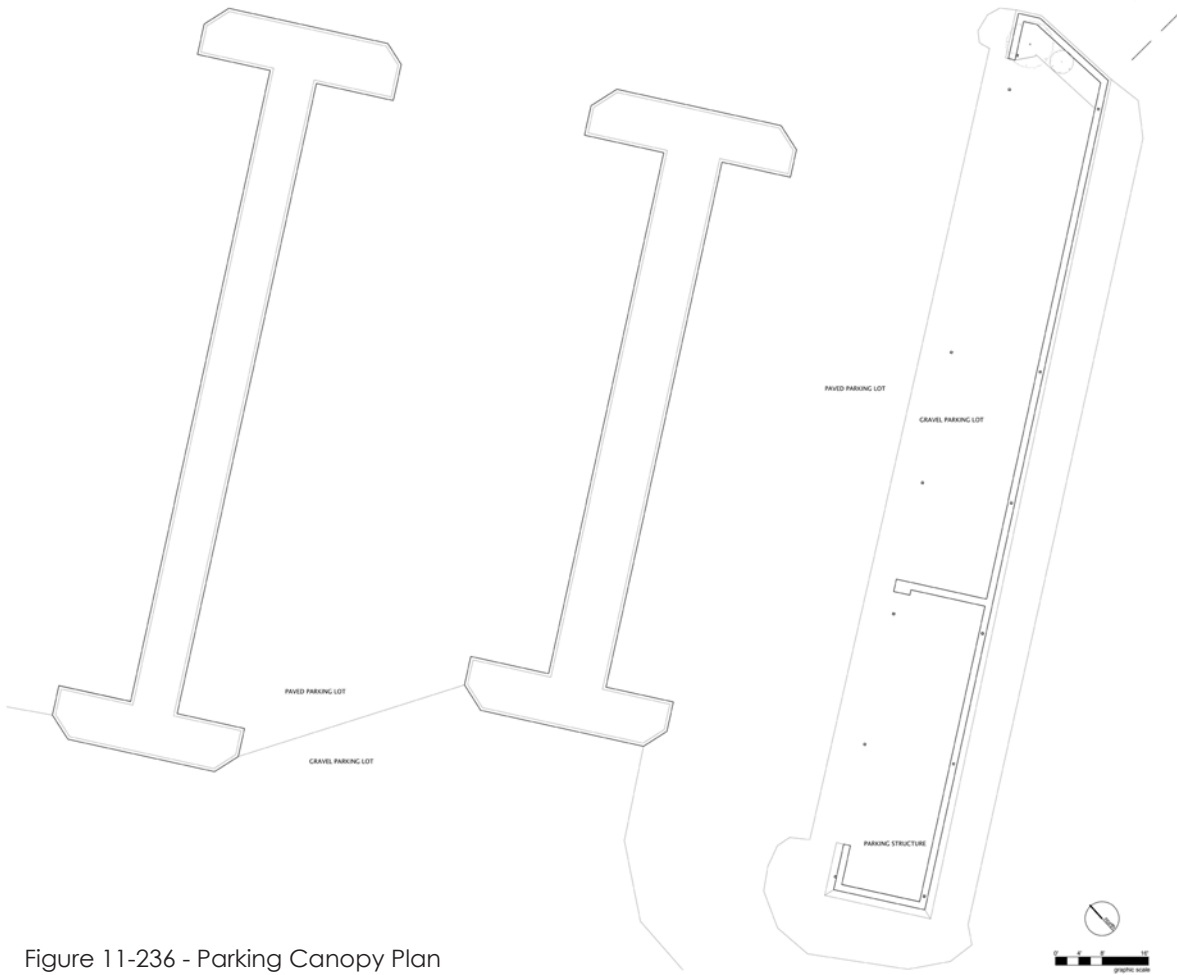


Figure 11-236 - Parking Canopy Plan



Figure 11-237 - Aerial view of parking lot showing wall, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-238 - Parking lot wall with canvas sunshades, ca. 1959 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure 11-239 - Looking west at parking canopy, 2014 (Harboe Architects).



Figure 11-240 - Parking canopy and wall, 2014 (Harboe Architects).



Figure 11-241 - Detail of wall with Taliesin lettering, 2014 (Harboe Architects).

BOOKSTORE

Exterior Scope

- Desert Masonry
All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Painted Lapboard Walls
All damaged wood is to be replaced in kind. All wood siding is to be prepared and painted.
- Roof
The roof surface is to be replaced with a new liquid applied membrane. Any damaged plywood roof deck discovered after the current roof membrane and foam are removed is to be replaced. The painted metal fascia at the roof eaves is to be prepared and painted.
- Glazing
The existing glazing in the Bookstore is in good condition and is to remain.
- Doors
The existing doors in the Bookstore are in good condition and are to remain.

Interior Scope

- Interior Renovations
The interior spaces of the Tower Office can be renovated as necessary to meet the programmatic needs of the Frank Lloyd Wright Foundation. A square footage allowance is to be included for general remodeling.
- Fire Protection
It may be necessary to provide a new fire suppression system per Scottsdale code requirements. For the purpose of pricing the scope of work, it should be assumed that a new concealed sprinkler system will be installed.

Environmental Management

- See Environmental Management Strategies Improvements chart at the end of this chapter.

Recommended Material Analysis/Testing

- None

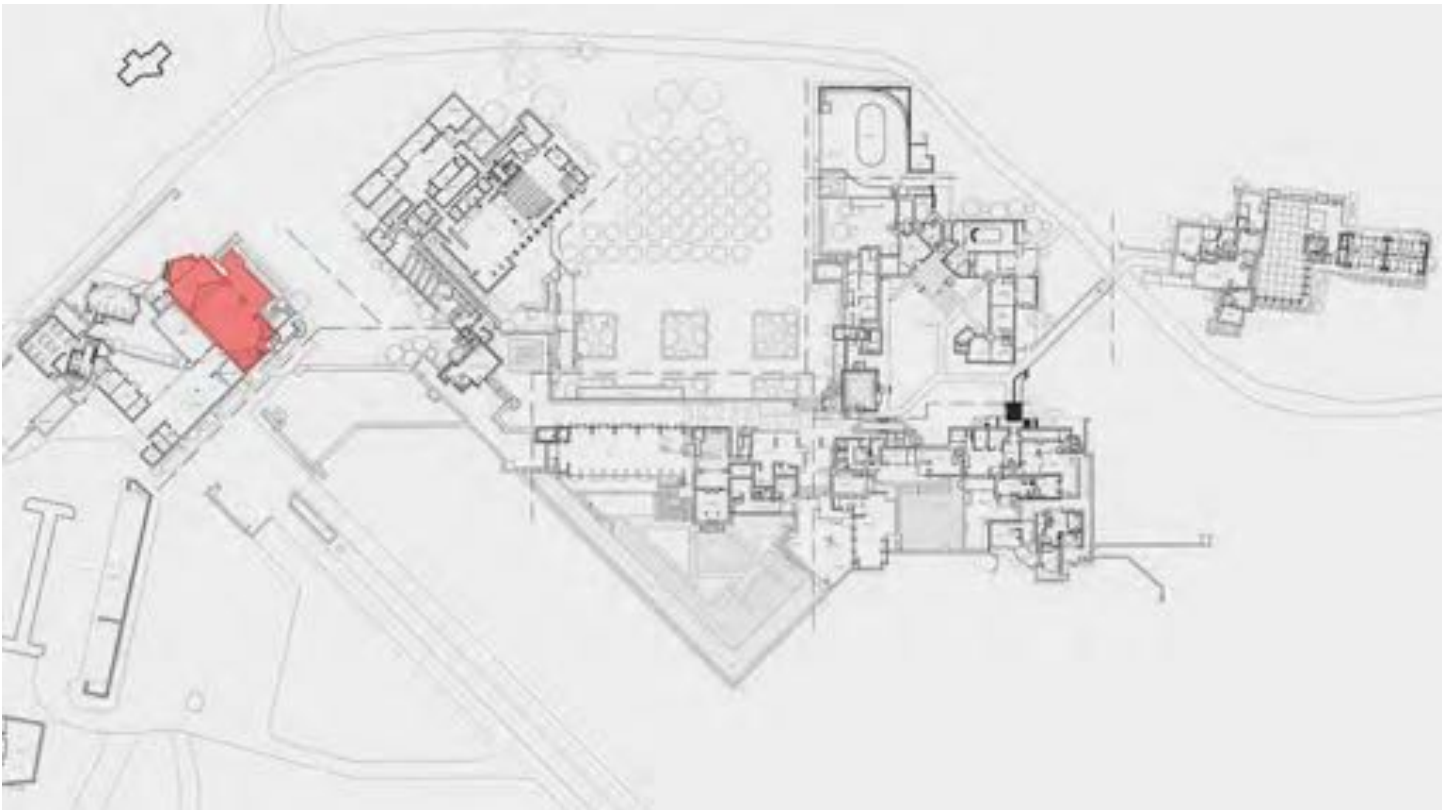


Figure 11-242 - Bookstore Location Plan

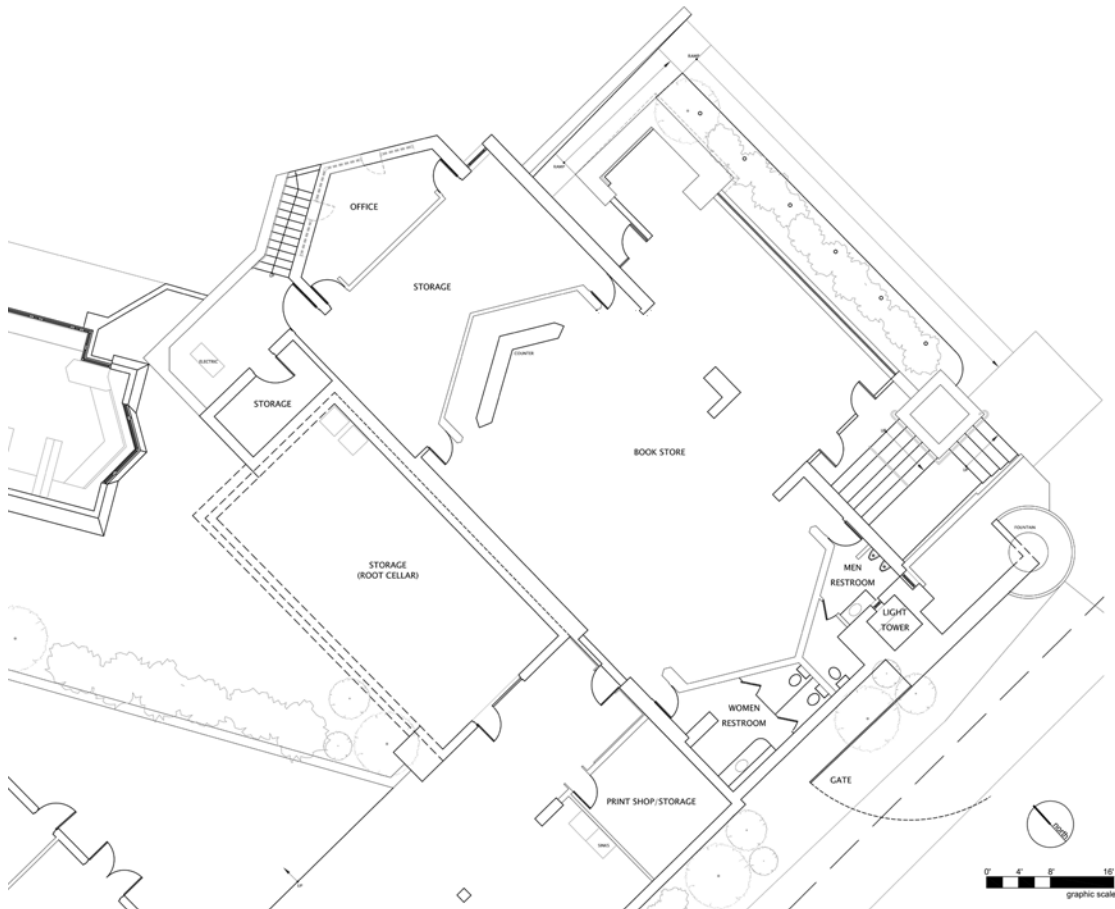


Figure 11-243 - Bookstore Floor Plan



Figure 11-244 - Desert masonry wall outside of the Bookstore (Fred Prozzillo).



Figure 11-245 - Bookstore roof (Fred Prozzillo).



Figure 11-246 - Interior of Bookstore showing retail displays and lighting (Fred Prozzillo).



Figure 11-247 - Interior of Bookstore showing floor and counters (Fred Prozzillo).

LANDSCAPE

- Desert Masonry Walls

All areas of non-matching patches and replacement in the desert masonry walls should be replaced. Prior to replacement, analysis of the desert masonry walls should be conducted to identify physical properties and mix designs for all repairs. Mock-ups should be prepared and materials and processes well documented.
- Concrete Paving

Restore the concrete paving to the 1959 appearance. This will involve patching as well as some larger areas of replacement. Analysis of the original concrete and mortar should be conducted to identify the physical properties and mix designs for both localized repairs and large scale replacement. Mock-ups to replicate the original paving should be prepared and materials & processes well documented.

Replace damaged stone pavers in the Apprentice Court. New pavers are to match the stone type and cut of the existing stone pavers.

Re-pave asphalt entry drive as needed.
- Plantings

The restoration of the plantings will require further research. A Cultural Landscape Plan should be completed to gain a better understanding of the historic landscapes at Taliesin West.
- Water Features

The triangular pool at the prow on the south side of the Drafting Studio is to be restored. The pool is to be drained and the light blue paint is to be stripped to expose the desert masonry. All joints are to be sealed. The bubbler is to be removed.

The fountain in the court outside of the Office and Cabaret is to be preserved. No work is required at this time.

The fountain outside the book store, adjacent to the Light Tower is to be preserved. No work is required at this time.

The small pool below the bridge that connects the Kiva roof to the Water Tower is to be restored. The pool is to be drained and the light blue paint is to be stripped to expose the concrete surface. All joints are to be sealed. The bubbler is to be removed.
- Petroglyphs

The prehistoric petroglyphs that are placed at key locations around the site are to be preserved in place. The petroglyphs are to be protected during any construction work occurring nearby.
- Art Objects & Sculptures

The Svetlana Peters Memorial on the Sunset Terrace is to be preserved. It is recommended that the memorial be assessed by an art conservator to determine if any conservation treatments are necessary.

The decorative glazed ceramic Chinese gateway pieces that are installed throughout the camp are to be conserved. It is recommended that they be assessed by an art conservator to determine what conservation treatments are necessary. These objects have also been relocated multiple times since being installed in 1955. Original locations should be determined in the Cultural Landscape Plan.
- Whitman Square

The Whitman Square should be conserved. Analysis should be conducted of the paint finishes to identify the original finishes and of the concrete to identify material properties. These analyses will aid in the development of appropriate repair materials for the concrete and coatings. In addition, mortar analysis should be conducted for the desert masonry to identify the physical properties and collect samples of the fine and course aggregates for replication purposes.

The existing conditions should be thoroughly documented with drawings and photographs prior to conducting any repairs.

The concrete slab should be carefully moved following the comprehensive documentation, to be re-installed and repaired subsequently. This will likely require at least partial disassembly of the desert masonry. A new reinforced concrete slab should be placed on prepared subsoil. This slab should be at a depth that will allow the inscription slab to be placed back at its existing elevation and location. The inscription slab should be reset in a full mortar bed on the new sub-slab. The joints at the existing cracks should be pinned with stainless steel dowels and the cracks should be filled with a concrete repair mortar that matches the properties, color, texture and appearance of the existing slab. Where letters bridge the location of cracks, the repair should replicate the missing portion of the letters. The painted finish of the slab and text should be restored, based on the results of the finish analysis. Any desert masonry that is dismantled should be reconstructed to exactly match the original placement and orientation of stones and with a mortar that matches the properties, color and finishing of the original.

Recommended Material Analysis/Testing

Site Paving

- Masonry/mortar analysis (slab & joints): 4 samples (assume 2 each for entire site)

Prow

- Masonry/mortar analysis: 1 sample
- finishes removal tests: 1 location



Figure 11-248 - Landscape Plan



Figure 11-249 - Paved area between the office and Drafting Studio, 2014 (Harboe Architects).



Figure 11-250 - Paved walkway on northwest side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-251 - Sunset Terrace, 2014 (Harboe Architects).



Figure 11-252 - Sunset Terrace, 2014 (Harboe Architects).



Figure 11-253 - Damaged concrete paving on north side of living quarters, 2014 (Harboe Architects).



Figure 11-254 - Damaged concrete paving on north side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-255 - Apprentice Court showing damaged pavers, 2014 (Harboe Architects).



Figure 11-256 - Garden wall with moon gate, 2014 (Harboe Architects).



Figure 11-257 - Entry drive, 2014 (Harboe Architects).



Figure 11-258 - Prow, 2014 (Harboe Architects).



Figure 11-259 - Triangular pool on south side of Drafting Studio, 2014 (Harboe Architects).



Figure 11-260 - Fountain in court outside of Office and Cabaret, 2014 (Harboe Architects).

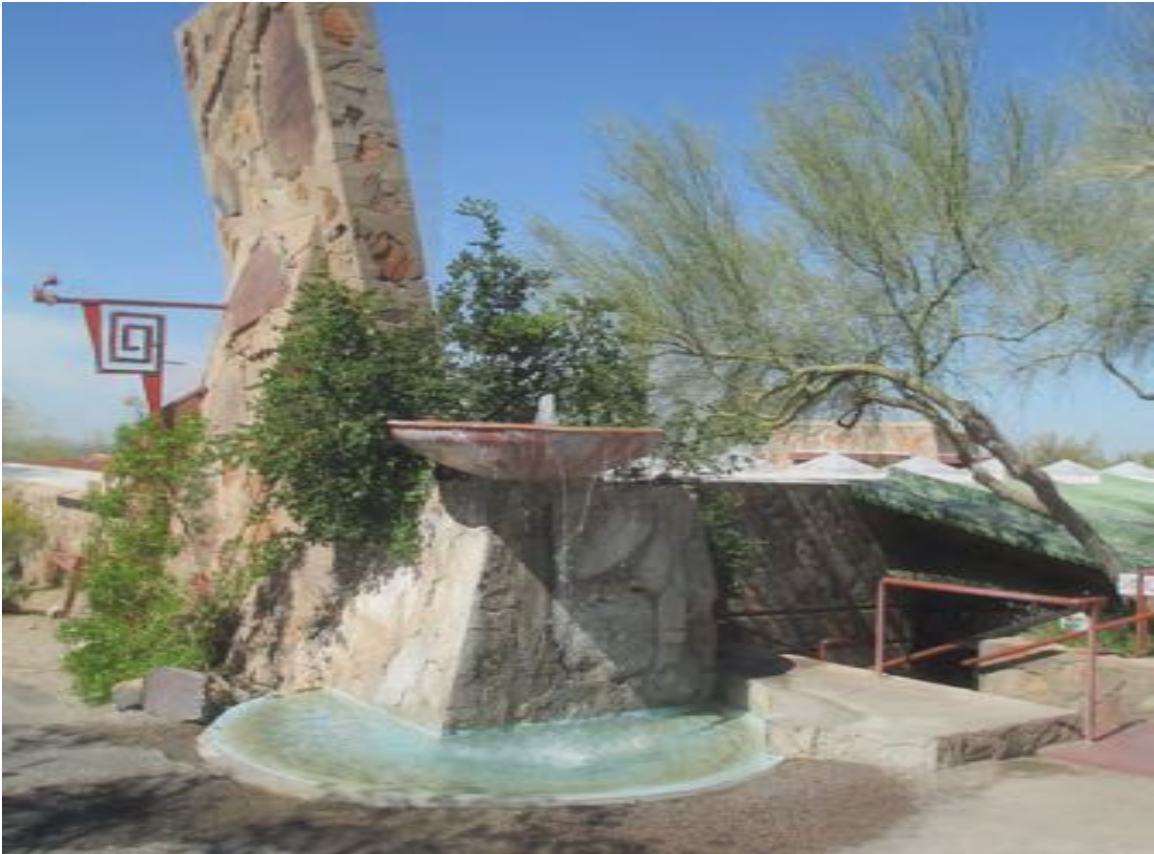


Figure 11-261 - Light Tower Fountain, 2014 (Harboe Architects).



Figure 11-263 - Small pool under Kiva Bridge, 2014 (Harboe Architects).



Figure 11-262 - Petroglyph, 2014 (Harboe Architects).



Figure 11-264 - Ceramic Chinese gateway piece, 2014 (Harboe Architects).



Figure 11-265 - Svetlana Peters Memorial on Sunset Terrace, 2014 (Harboe Architects).



Figure 11-266 - Whitman Square, 2014 (Harboe Architects).

Site Utilities

Electrical Supply & Distribution

Off-site electrical power from Arizona Power Supply (APS) is delivered to the site by overhead lines to a meter located at the northwest corner of the parking lot (Reference Taliesin West drawing E001 Overall Electrical Plan1) then distributed by underground cable (7.2 KV) to 12 transformers throughout the property, with eleven of the transformers feeding a total of 39 power panels (one transformer, T7, is no longer used).

On-site electrical power is generated by two photovoltaic arrays in the southwest corner of the site; this system backfeeds through transformer T6.

According to the 13 May 2014 Energy Assessment prepared by EnergyActio™, the site consumes ~641,000 kWh of off-site power and ~586,000 of site generated power.

The Taliesin West Facilities Department reports that:

- The installation dates for the transformers range from the 1950s through the 1980s and that some transformers contain PCB (Polychlorinated Biphenyl);
- The underground primary cables require replacement;
- The Facilities Department is in the process of documenting and systematically replacing the distribution system.

Recommendations

- Replacement of the primary cabling and the transformers should include verification of the necessary capacity for each. Sizing should be informed by future plans for the buildings that will result in increased electrical loads for equipment, lighting and outlets, taking into account the effects of energy efficiency measures that will also be realized, especially with respect to lighting and mechanical equipment;
- Electrical equipment should be tested for PCB and if found correct measures for handling and disposing of the equipment must be taken;
- The USDA Websoil Survey² indicates that the two dominant site soils, Momoli-Carrizo complex and the Pinamt-Tremant complex, have moderate to high potential, respectively, for soil-induced electrochemical corrosion of uncoated steel. This should be taken into account when specifying and installing buried raceway;
- Consideration should be given to site needs for emergency power for critical systems, and whether or not emergency power generation should be installed at the site.

Water Supply & Waste Water

Taliesin West is served by:

- An on-site water well and domestic water treatment system. Domestic water is distributed throughout the site in galvanized pipe.³
- An on-site waste water treatment facility and a system of sanitary sewer piping.⁴

The Taliesin West Facilities Department reports that:

- Water well capacity and performance is adequate for existing potable water needs;
- Galvanized steel water distribution piping needs replacement due to corrosion and leaks;
- Sanitary sewer piping needs replacement due to age and leaks
- The Facilities Department is in the process of documenting the water distribution and sanitary sewer systems;
- Off-site water supply is potentially available from public water supply systems for the residential developments to the north (Sienna Canyon) and the south (Frank Lloyd Wright Boulevard).

Recommendations

- The USDA Websoil Survey⁵ indicates that the two dominant site soils, Momoli-Carrizo complex and the Pinamt-Tremant complex, have moderate to high potential, respectively, for soil-induced electrochemical corrosion of uncoated steel. This should be taken into account when specifying and installing piping;
- Consideration should be given to upgrading the water supply system to provide water for a system of fire hydrants and for the future prospect that Taliesin West will be required to install automatic fire protection sprinkler systems in buildings with residential and assembly uses. If on-site water supply is used for fire hydrants or sprinkler systems, a fire water supply tank and pump. If a public water supply with adequate capacity and pressure is used, the on-site tank and pump could be avoided.

Notes:

1 An electrical single line distribution diagram is not available at the time of this report.

2 <http://websoilsurvey.sc.egov.usda.gov/>

3 A water distribution diagram and plan are not available at the time of this report.

4 A water distribution diagram and plan are not available at the time of this report.

5 <http://websoilsurvey.sc.egov.usda.gov/>

Environmental Management Systems

At Taliesin West, the objectives for environmental management for each building or major space will result from one or more of the following factors:

1. Interpretive goals for the building, such as “environmental or experiential authenticity;”
2. Proposed use of the building the associated thermal and moisture loads, such as in the kitchen or an office;
3. Building occupants and factors affecting human thermal comfort, including: census; duration of stay; activity level; clothing; prior environmental conditions; and expectations of comfort;
4. Time of day and time of year (season) of building use;
5. Building envelope performance
6. Space for systems and impact on historic fabric.

Many of these factors will be competing or conflicting, and therefore not all of these factors can be satisfied in equal measure by a given environmental management strategy.

The following table lists the individual buildings, pertinent information affecting environmental management and the proposed mechanical and non-mechanical strategies for environmental management.

TALIESIN WEST PRESERVATION MASTER PLAN
ENVIRONMENTAL MANAGEMENT STRATEGIES IMPROVEMENTS
12 January 2015 draft

Significance Zone	Building / Space	Use & Occupancy					Envelope Characteristics					Existing System*		Proposed Strategies							Remaining Service Life*				Scope of Work		
		Interpreted Y/N	Environmental Authenticity	Proposed Use	Occupancy/ Use Pattern	Activity/Duration	Comments	Roof	Walls	Wall Openings	Floors	Comments	Type	Taliesin West ID	Natural Ventilation	Solar Heating	Mechanical Ventilation	Mechanical Heating	Mechanical Cooling	Mechanical System Type	Comments	None	1 to 5 years	6 to 10 years		> 10 years	
1	Office	Y	High	Tours & Greeting	Year-round	Stand/sit<1 hour Staff 8 hrs		Fixed Canvas	Masonry	Operable Glazing	Concrete slab		Package unit	I11	✓	✓	✓	Spot heat	Spot cool	Ventilation; spot heat/cool at work station	Localized heat/cool for staff			✓		Remove existing package unit. Retain SA and RA openings & install ventilation fan & filter. Install radiant heat panel and small volume cooling at desk.	
1	Drafting Studio	Y	High	Classroom	Seasonal	Sit/Computer ~12 hrs		Fixed Canvas	Masonry	Operable Glazing	Concrete slab		Ductless split unit (11)	A1 thru A11	✓	✓	✓	✓	✓	VRF with Bell Tower condenser (Studio zone)	Cooling for shoulder seasons only, not summer. Computational fluid dynamics (CFD) study req'd.			11		Remove existing equipment, piping & wiring (11 condensers and 11 FCU). Install VRF air-cooled condenser on Bell Tower roof & 11 FCU along low (south) wall behind desk. Requires modelling air flow using computational fluid dynamics for placement.	
1	Original Dining Room (Boardroom)	Y	High	Classroom & Conference rm	Year-round	Sit<3 hours		Wood deck & skylight	Masonry	Clerestory	Concrete slab		Mini split	A13		✓	✓	✓	✓	VRF with Bell Tower condenser (Guest Deck/ Dining Rm zone)	Operate during occupancy			✓		Use Dining Room VRF condenser for heat/cool. Install small FCU in Kitchen, duct thru wall.	
1	Kiva	Y	High	Classroom & Tours	Year-round	Stand/sit <1 or 3 hours	Potential "cooling zone" for tours	Concrete Slab	Masonry	2 windows	Concrete slab		Window unit (extr package unit & duct left in place)	E1			✓	✓	✓	VRF with exterior AHU (Apprentice Court zone)	Operate for tours/classes	✓				Remove existing exterior package unit. Clean duct & install new exterior AHU w. VRF piping to Apprentice Court Zone VRF air cooled condenser.	
1	Cabaret Theater	Y	High	Performance & Tours	Year-round	Sit 4 hrs or Stand/sit<1 hour		Concrete slab	Masonry, subgrade	Open gallery	Concrete slab		Once-thru AHU. Fireplace for heat.	I12	✓			Fireplace	✓	VRF with exterior 100 % outside air, low noise AHU (Pavillion/Cabaret zone)	Operate during events			✓		Remove existing condenser & AHU. Clean duct duct & install low speed low noise AHU. Use Pavillion/Cabaret VRF air cooled condenser.	
1	W. Peters Room	Y	High	Unknown	Year-round	Stand/sit <1 hour		Wood deck	Masonry	open to porch	Concrete slab		Split	A16	✓	✓		✓	✓	VRF with small AHU (Guest Deck/ Dining Rm zone)	Operate during occupancy			✓		Remove existing equipment, piping & wiring. Use Dining Room VRF condenser for heat/cool. Install small AHU in new closet, duct thru walls.	
1	G. Masselink Room	Y	High	Unknown	Year-round	Office work hours 8		Wood deck	Masonry	open to porch	Concrete slab		Split	A16	✓	✓		✓	✓	VRF with exterior 100% outside air AHU (Office zone)	Operate during events			✓		Remove existing package unit. Clean duct & reconfigure for once-thru flow. Install new package unit w. 100% outside air & VRF piping to Office Zone VRF air cooled condenser.	
1	Garden Room	Y	High	Tours & Events	Year-round	Stand/sit <1 or 3 hours		Fixed Canvas	Masonry	Open to yard	Concrete slab		Package unit w. underfloor supply & return ducts	B1	✓	✓	✓	✓	✓	VRF with exterior 100% outside air AHU (Office zone)	Operate during events			✓		Remove existing package unit. Clean duct & reconfigure for once-thru flow. Install new package unit w. 100% outside air & VRF piping to Office Zone VRF air cooled condenser.	
1	The Wright's Living Quarters (Bedrooms)	Y	High	Tours	Year-round	Stand/sit <1 hour		Wood deck	Masonry	Operable Glazing	Concrete slab		Split	B3	✓	✓		✓	✓	VRF with 1 FCU/AHU (Office zone)	Operate during occupancy			✓		Remove existing duct. Install new interior FCUs/AHUs w. VRF piping to Office Zone VRF air cooled condenser.	
2	Apprentice Apartment Interiors	N	NA	Residential	Year-round	Residential 1 wk to 12 mos		Concrete Slab	Masonry	Operable Glazing	Concrete slab		Window unit (4) Package (1) Split (4)	F1 thru F9				✓	✓	✓	VRF with 9 FCUs/AHUs (Apprentice Court zone)	Operate during occupancy	6	2	1	Remove existing units at end of service life. Install new interior FCUs/AHUs w. VRF piping to Apprentice Court Zone VRF air cooled condenser.	
2	Original Men's Locker Room	N	NA	Barrier-free Restroom	Year-round	Brief		Concrete Slab	Masonry	Operable Glazing	Concrete Slab		Split	J4				✓	✓	✓	Retain existing	Prevent freezing. Exhaust during occupancy.			✓		Retain existing
2	Original Women's Locker Room	N	NA	Barrier-free Restroom	Year-round	Brief		Concrete Slab	Masonry	Operable Glazing	Concrete Slab		Package	F10				✓	✓	✓	Retain existing	Prevent freezing. Exhaust during occupancy.			✓		Retain existing
2	Shops (Offices only)	N	NA	Offices	Year-round	Office work 8 hours		Wood deck	Masonry		Concrete slab		Split	J5				✓	✓	✓	VRF with exterior condenser (Shop zone)	Operate during occupancy			✓		Remove existing units at end of service life. Install new interior FCU w. VRF piping to Shop Zone VRF air cooled condenser.
2	Dining Room	N	NA	Meal Service	Year-round	Dine or sit 1-2 hours		Wood deck	Glazed		Concrete slab		Split AHU in server room	A14				✓	✓	✓	VRF with 1 FCU/AHU (Guest Deck/ Dining Room zone)	Operate during occupancy			✓		Remove existing unit at end of service life. Install new interior FCUs/AHUs w. VRF piping to Guest Deck/Dining Room Zone VRF air cooled condenser mounted in bell tower.
2	Guest Deck (4 apartments)	N	NA	Lodging	Year-round	Residential/ Lodging		Wood deck	Frame & glazed		Wood deck		Package unit, SA&RA ducts under roof (#1-#3) Split (#4)	A17 B2	✓	✓	✓	✓	✓	VRF with 4 FCUs/AHUs (Guest Deck/Dining Room zone)	Operate during occupancy			4		Remove existing system when roof is replaced. Install new interior FCUs w. VRF piping to Guest Deck/Dining Room Zone VRF air cooled condenser mounted in bell tower.	
2	Kitchen	N	NA	Kitchen	Year-round	Food service 8 hours		Concrete Slab	Masonry		Concrete slab		Split	A12				✓	✓	✓	VRF w. 100% outside air, exterior AHU in Bell Tower	Operate during occupancy			✓		Replace existing unit at end of service life. Retain Bell Tower mounting.
2	Kitchen & Baths in Wright Residence	N	NA	None	None	None		Wood deck			Concrete slab									None						No action	

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12 January 2015 draft

Building		Use & Occupancy						Envelope Characteristics					Existing System*		Proposed Strategies							Remaining Service Life*				Scope of Work
Significance Zone	Building/Space	Interpreted Y/N	Environmental Authenticity	Proposed Use	Occupancy/Use Pattern	Activity/Duration	Comments	Roof	Walls	Wall Openings	Floors	Comments	Type	Talesin West ID	Natural Ventilation	Solar Heating	Mechanical Ventilation	Mechanical Heating	Mechanical Cooling	Mechanical System Type	Comments	Remaining Service Life*				Scope of Work
																						None	1 to 5 years	6 to 10 years	> 10 years	
3	Pavillion	N	NA	Performance	Year-round	Events 1-4 hours		Translucent panels	Translucent panels		Raked concrete slab at seating		Package (3) Split (1)	I1 thru I4			✓	✓	✓	Retain existing & add supplemental cooling at rear of raked seating	Operate for events only			3	1	Perform computational fluid dynamics study of air distribution. Assess impact of radiant heat gain from roof at rear of raked seating. Design & install supplementary cooling at rear of raked seating.
3	Sun Cottage (3 apartments)	Y	NA	Residential & Tours	Year-round	Overnight lodging		Wood deck	Glazed		Concrete slab		Split (2) Package (1)	G4 thru G6			✓	✓	✓	VRF with 3 FCUs/AHUs (Cottage zone)	Operate during occupancy	1		1	1	Remove existing units at end of service life. Install 3 new FCUs/AHUs w. VRF piping to Cottage Zone VRF air cooled condenser.
4	Administration	N	NA	Offices	Year-round	Office work hours 8		Concrete slab	Masonry		Concrete slab		Split (6) Mini-split (1)	C1 thru C4 D1 thru D3			✓	✓	✓	VRF with 7 FCUs/AHUs (Office zone)	Operate during occupancy	2		4	1	Remove existing exterior RTU. Clean duct & install new exterior AHU w. VRF piping to Office Zone VRF air cooled condenser.
4	Atrium	N	NA	Education	Year-round	Events 1-4 hours		Wood deck	Glazed		Concrete slab		Split (3)	G1 thru G3			✓	✓	✓	VRF with 3 FCUs/AHUs (Cottage zone)	Operate during occupancy			3		Remove existing units at end of service life. Install new interior FCU w. VRF piping to Cottage Zone VRF air cooled condenser.
4	East Wing	N	NA	Education	Year-round	Class 1-4 hours		Wood deck			Concrete slab		Mini split (2)	H1 and H2			✓	✓	✓	VRF with 2 FCUs/AHUs (Cottage zone)	Operate during occupancy				2	Remove existing units at end of service life. Install new interior FCU w. VRF piping to Cottage Zone VRF air cooled condenser.
4	Library	N	NA	Archives	Year round	Office work 8 hours	Requires conservation conditions for collections 24/7/52	Metal deck			Concrete slab		Mini split (3) Split (3)	I5 thru I10			✓	✓	✓	VRF with 6 FCUs/AHUs (Library zone)	Must operate 24/7/52	1		3	2	Remove existing units at end of service life. Install new interior AHU & duct w. VRF piping to Library Zone VRF air cooled condenser. Add separate dehumidification.
4	Reading Room	N	NA	Archives	Year round	Office work 8 hours	Requires conservation conditions for collections 24/7/52	Metal deck			Concrete slab		Package	J3			✓	✓	✓	VRF with 1 FCU/AHU (Library zone)	Must operate 24/7/52			✓		Remove existing units at end of service life. Install new interior AHU & duct w. VRF piping to Library Zone VRF air cooled condenser. Add separate dehumidification.
4	Bookstore	N	NA	Retail	Year round	Sales hours 8		Metal deck	Masonry		Concrete slab		Split (2)	J1 and J2			✓	✓	✓	VRF with 2 FCUs/AHUs (Library zone)				2		Remove existing units at end of service life. Install new interior AHU & duct w. VRF piping to Shop Zone VRF air cooled condenser.
4	Men's Locker Room	No	NA	Education	Seasonal	Shower/hygiene	Freeze protection, comfort	Metal deck	Concrete		Concrete slab		Split	J4			✓	✓	✓	VRF with 1 FCU/AHU (Library zone)	Operate during occupancy				✓	Remove existing units at end of service life. Install new interior AHU & duct w. VRF piping to Shop Zone VRF air cooled condenser.

* Denotes information provided by Talesin West Facilities staff

Mechanical Units												
Service Location	Unit Location	Photo Ref.#	TW Unit #	Mfg	Model Number	Serial Number	Power	HP	Ton	Unit Type	Mfg Date	Replacement status 12/2014
Drafting Studio	Studio Pit #1	32	A1	Lennox Industries	HP29-018-1P	5898G63301	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #2	33	A2	Lennox Industries	HP29-018-1P	5898G63287	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #3	34	A3	Lennox Industries	HP29-018-1P	5898G63305	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #4	35	A4	Lennox Industries	HP29-018-1P	5898G63296	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #5	36	A5	Lennox Industries	HP29-018-1P	5898G63292	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #6	37	A6	Lennox Industries	HP29-018-1P	5898G63293	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #7	38	A7	Lennox Industries	HP29-018-1P	5898G63299	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #8	39	A8	Lennox Industries	HP29-018-1P	5898G63304	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #9	40	A9	Lennox Industries	HP29-018-1P	5898G63297	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #10	41	A10	Lennox Industries	HP29-018-1P	5898G63298	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Drafting Studio	Studio Pit #11	42	A11	Lennox Industries	HP29-018-1P	5898G63300	208/230 V; 60 Hz	1/6 HP		ductless split		6-10 years replacement
Kitchen	Above Kitchen #1	30	A12	Goodman	DSZC180601BB	1403156827	208/230 V; 60 Hz	1/3 HP		split		new
Board Rm	Over WWP #2	27	A13	LG	W LSU242HE		208/230 V; 60 Hz			mini split		6-10 years replacement
Dining Rm	Above Kitchen #2	31	A14	Day & Night (International Comfort Products)	N4H360AKB400	E121611877	208/230 V; 60 Hz	1/4 HP		split	2012.4	new
Server Rm	Over WWP #3	28	A15	Fijitsu	AOU24CL	DDN003542	208/230 V; 60 Hz			mini split		6-10 years replacement
WWP Conf Rm	Over WWP #1	26	A16	Trane XR13	2TWR3042A1000AA	702456H4F	200/230 V; 60 Hz			split	2007.1	6-10 years replacement
Guest Deck 1,2,3	Above kitchen	29	A17	Lennox Industries	CHP20R-511-2P	5698K06590	209/230 V; 60 Hz	1/4 HP		package		6-10 years replacement
Garden Room	west side, Garden Room garden wall	23	B1	Carrier	50TFQ008--511	2407G20845	208/230 V; 60 Hz			package		6-10 years replacement
Guest Deck 4	Above Little Kitchen, East of Guest Deck	24	B2	Lennox Industries	HP-26-018-7P	5899D49864	208/230 V; 60 Hz	1/10 HP		split		6-10 years replacement
Wright's Bedrooms	N side of Wrights Bedroom, AppCrt in pit	25	B3	Lennox Industries	HP29-411-1P	5894M36301	208/230 V; 60 Hz	1/6 HP		split		6-10 years replacement
Tower Office	Adjacent walkway to Dekoven Hill Office	8	C1	Lennox Industries	HP26-024-7P	5898E22480	208/230 V; 60 Hz			split		6-10 years replacement
Dekoven Hill Office	Adjacent walkway to Dekoven Hill Office	9	C2	Daikin Industries	RXN24KEVJU5	G000258	208/230 V; 60 Hz			mini split		new
Finance Office	Finance Office, North side	10	C3	Lennox Industries	13HPX-036-230-12	1910G00504	208/230 V; 60 Hz	1/5 HP		split		6-10 years replacement
Dr. Joe Office	Dr. Joe Office patio	11	C4	Lennox Industries	HP-042-1P	5898H-13706	208/230 V; 60 Hz	1/3 HP		split		immediate replacement
Clinic Offices-E unit	Clinic west side	12	D1	Lennox Industries	12HPB42-7P	5800G39220	208/230 V; 60 Hz	1/2 HP		split		6-10 years replacement
Clinic Offices-W unit	Clinic south side	13	D2	Goodman Mfg.	HDP-18-1B	9912453286	208/230 V; 60 Hz	1/15 HP		split		immediate replacement
Carney Office (CEO)	south side	15	D3	Lennox Industries	XP13-036-230-04	5810E04910	208/230 V; 60 Hz	1/10 HP		split		
Kiva	window		E1		window unit							
Apprentice Court 1	window		F1		window unit							
Apprentice Court 2	window		F2		window unit							
Apprentice Court 3	window		F3		window unit							
Heloise App Crt 4 unit 1	east side of studio, N unit	16	F4	Blackville, S.C. (no Mfr. on unit)	2AC13B18P	4606M51485	208/230 V; 60 Hz	1/10 HP		split		6-10 years replacement
Heloise App Crt 4 unit 2	east side of studio, S unit	17	F5	Lennox Industries	12ACB24-6P	5801F32465	208/230 V; 60 Hz	1/6 HP		split		6-10 years replacement
Apprentice Court 5	window		F6		window unit							
Cornelia App Crt 6	App Crt 6 courtyard	18	F7	Trane	WCH024C100AA	6372LKU3H	208/230 V; 60 Hz	1/5 HP		package		immediate replacement
Arnold Roy Apt	Arnold Roy Apt roof	20	F8	Lennox Industries	HP16-211U-3P	5185D02380				split		immediate replacement
John Rattenbury Apt	John Rattenbury Apt roof	21	F9	American Standard/Trane	4WCZ6036A1000BA	112411115L	208/230 V; 60 Hz	1/2 HP		split		new
Woman's Locker	Woman's Locker roof	19	F10	Trane	4WCC3018A1000AA	113414589L	208/230 V; 60 Hz	1/3 HP		package	2011.8	new
Atrium	Atrium NE-S Unit	3	G1	Lennox Industries	10HPB30-8P	5899G20822	208/230 V; 60 Hz	1/6 HP		split		6-10 years replacement
Atrium	Atrium NE-N Unit	4	G2	Goodman Mfg.	HDP18-1A	101508982	208/230 V; 60 Hz	1/15 HP		split		6-10 years replacement
Atrium	Atrium-NW Unit	4a	G3	Lennox Industries	12ACB48-3P	5898E8843	208/230 V; 60 Hz	1/3 HP		split		6-10 years replacement
Sun Cottage	Sun Cottage roof	5	G4	Bard	PH11422	176F0Z1727981-1	230/208 V; 60 Hz	1/3 HP		split		6-10 years replacement
Eve's	Eve's roof	7	G5	Airtemp	3252-010	IF119781	208/230 V; 60 Hz	1/4 HP		split		immediate replacement
Guest Apt./Pyracantha	Guest Apt./Pyracantha, roof	6	G6	Trane	4WHC3024A1000AA	14173GTG3H	208/230 V; 60 Hz	1/4-1/5 HP		package		new
East Wing Classrooms	East Wing NE-N Unit	1	H1	Daikin	4MXS32GVJU	E012469	208/230 V; 60 Hz			mini split	2013.3	new
East Wing Shops	East Wing NE-S Unit	2	H2	Daikin	4MXS32GVJU	E012457	208/230 V; 60 Hz			mini split	2013.2	new
Pavilion Office	Roof top, Pavilion Office	43	I1	Goodman	GPH1324M41CA	1401281999	208/230 V; 60 Hz	1/4 HP		package		new
Pavilion, NW	Roof top, Pavilion Kitchen	44	I2	Trane XL1600	WCZ060F100BC	3384NB22H	208/230 V; 60 Hz	1 HP- 1/4 HP		package	2003.9	6-10 years replacement
Pavilion, NW	Roof top, Pavilion Kitchen	45	I3	Trane XL1600	WCZ060F100BD	3434JU2H	208/230 V; 60 Hz	1 HO - ¼ HP		package	2003.10	6-10 years replacement
Pavilion, SE	Roof top, Pavilion Kitchen	46	I4	Trane XL19i	2TW9060A1000AC	42353CN2F	200/230 V; 60 Hz	1/3 HP		split	2004.6	6-10 years replacement
Library, Periodicals Rm	NE Side Library #1	47	I5	General Electric - Weathertron						split		immediate replacement
Library, Special Collections	NE Side Library #2	48	I6	Lennox Industries	HP26-024-7P	5897M14981	208/230 V; 60 Hz	1/10 HP		split		6-10 years replacement
Library Office	NE Side Library #3	49	I7	Sanyo	CH2472	19462	230/208 V; 60 Hz			mini split	2006.2	6-10 years replacement
Library Vault	NE Side Library #4	50	I8	Daikin	RXN24KEVJU	C004164	208/230 V; 60 Hz			mini split	2012.10	new
Library Stacks	NW Library	52	I9	Lennox Industries	13HPD-036-230-01	5808C23966	208/230 V; 60 Hz	1/5 HO		split		6-10 years replacement
Library Stacks	NW Library	53	I10	Daikin	RXN24KEVJU5	G000229	208/230 V; 60 Hz			mini split	2013.8	new
Wright's Office	Wright's Office, north side	54	I11	Lennox Industries	CHP20R-461-1P	5696M02136	208/230 V; 60 Hz	1/2 HP - 1/4HP		package		6-10 years replacement
Cabaret	Cabaret, west side	51	I12	Trane XR13	4TWR3060A1000AB	10242UEN2F	208/230 V; 60 Hz	1/4 HP		split	2010.6	6-10 years replacement
Book Store	Book Store W-N Unit	55	J1	Aire-Flo	AFHEAT10B60	4603F20438	208/230 V; 60 Hz	1/4 HP		split		6-10 years replacement
Book Store	Book Store W-S Unit	56	J2	Aire-Flo	AFHEAT10B60	4603F22283	208/230 V; 60 Hz	1/4 HP		split		6-10 years replacement
Reading Rm	Reading Room	57	J3	Bard	PH11241	170N021773713-1	208/230 V; 60 Hz	1/5 HP		package		6-10 years replacement
Mens Locker Rm	Mens Locker room, west side	58	J4	Carrier	25HCB348A300	2311E02222	208/230 V; 60 Hz	1/4 HP		split		new
Shop Offices	Shop, west side	59	J5	Aire-Flo	AFHEAT12R24	4602F20152	208/230 V; 60 Hz	1/10 HP		split		6-10 years replacement

Archives	S side	60	K1	unknown						split		6-10 years replacement
Archives	S side	61	K2	unknown						split		immediate replacement
Archives	S side	62, 62a	K3	Goodman	HDP24-18	9802414081	208/230 V; 60 Hz	1/15 HP		mini split		6-10 years replacement
Archives	S side	63, 63a	K4	Fujitsu	AOU18RLQ	GWN006238	208/230 V; 60 Hz			mini split		6-10 years replacement
Archives	S side	64, 64a	K5	Fujitsu	AOU18RLQ	GWN006236	208/230 V; 60 Hz			mini split		6-10 years replacement
Archives	S side	65, 65a	K6	American Standard/Trane	TWD724B100A2	E50226187	208/230 V; 60 Hz	1/4 HP		split	1990.12	6-10 years replacement
Archives	S side	66, 66a	K7	Trane	2TWB30241000BA	11341R1P4F	200/230 V; 60 Hz	1/4 HP		split	2011.8	6-10 years replacement
Trailer Offices	N wall	67	K8	Bard						trailer		6-10 years replacement
Mod Fab	*unconditioned* (Building L)											
Crescent Apt 1	Mech. Pit, east	68, 68a	M1	Lennox	13HPX 024 230 13	1910E36253	208/230 V; 60 Hz	1/5 HP		split		6-10 years replacement
Crescent Apt 1	Mech. Pit, east	69, 69a	M2		N4H318AKE100	E121309223	208/230 V; 60 Hz	1/12 HP		split	2012.4	new
	Mech. Pit, east	70, 70a	M3	Lennox	HP18 261V 7P	5187D23381	208/230 V; 60 Hz	1/6 HP		split		immediate replacement
Crescent Apt 4	Mech. Pit, west	71, 71a	M4		N4H318AKE100	E122517511	208/230 V; 60 Hz	1/12 HP		split	2012.6	new
Crescent Apt 4	Mech. Pit, west	72, 72a	M5	Lennox	HP18 261V 7P	5187D23342	208/230 V; 60 Hz	1/6 HP		split		immediate replacement
Crescent Apt 4	Mech. Pit, west	73, 73a	M6	Lennox	HP18 261V 7P	5187D23405	208/230 V; 60 Hz	1/6 HP		split		immediate replacement
Carousel Rooms	*unconditioned* (Building N)											
Apprentice Lounge	*unconditioned* (Building O)											
Montooth Cottage	Montooth Cottage, SE side	22	P1	Bard	PH11242	254I041932209-1	230/208 V; 60 Hz	1/5 HP		package		6-10 years replacement
Desert House	SW side	74, 74a	Q1		N4H360AKB400	E124808027	208/230 V; 60 Hz	1/4 HP		split	2012.11	new
Ling Po Cottage	Roof top	75, 75a	R1	Lennox	CHP16 261 4P	5600C 09423	208/230 V; 60 Hz	1/3 HP-1/6 HP		package		6-10 years replacement
Lockhart Cottage	N side	76, 76a	S1	Amana	P55200 8C	S866900014				split		immediate replacement
Lockhart Studio	S side	77, 77a	S2	Lennox	HP25 211 2P	5896F 36133	208/230 V; 60 Hz	1/10 HP		split		6-10 years replacement
Pfeiffer Residence	E side	78, 78a	T1	Lennox	CHP20R 411 2P	5697G 02446	208/230 V; 60 Hz	1/3 HP-1/6 HP		package		6-10 years replacement

TALIESIN WEST

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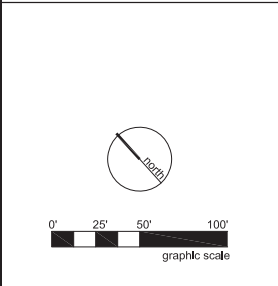
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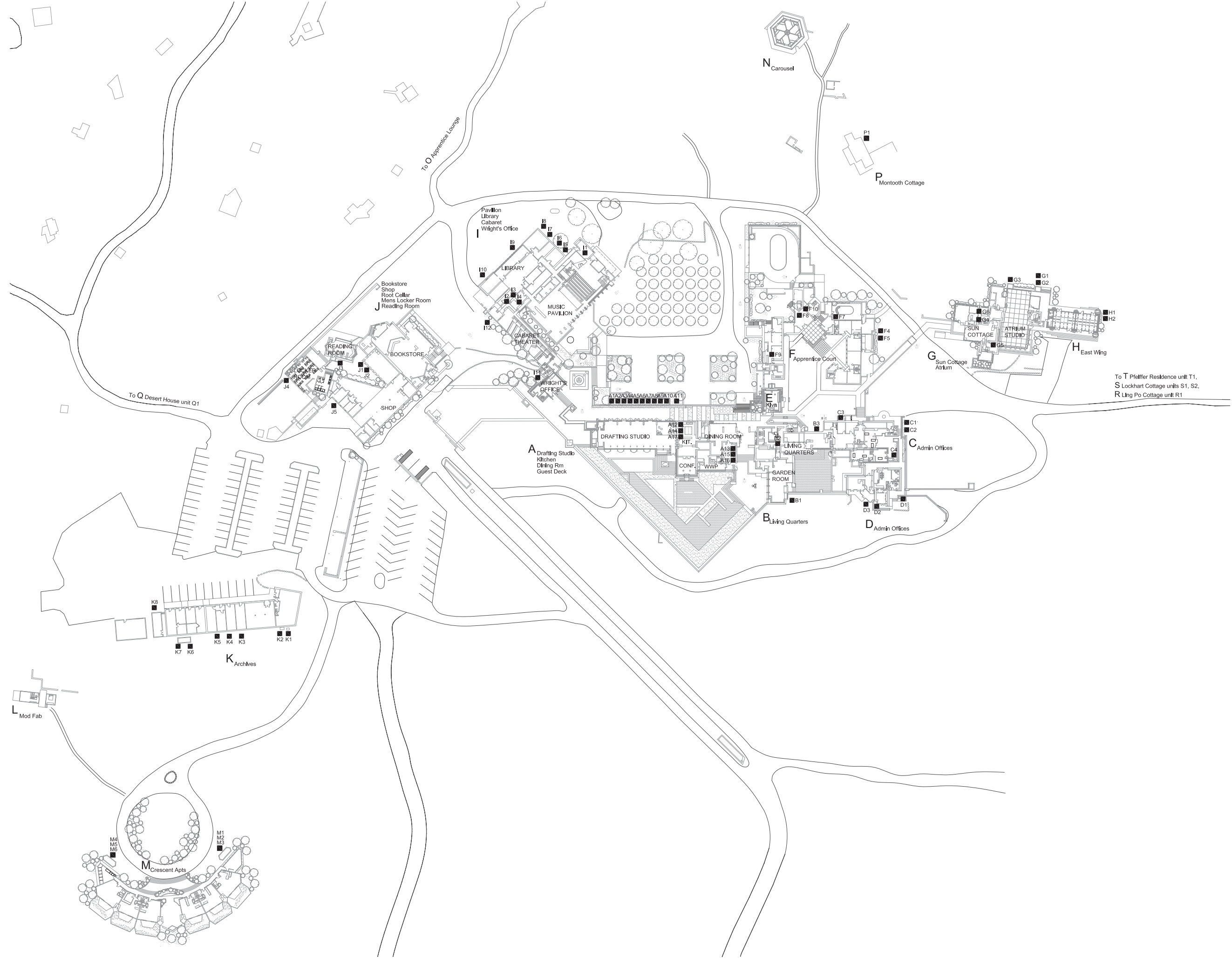
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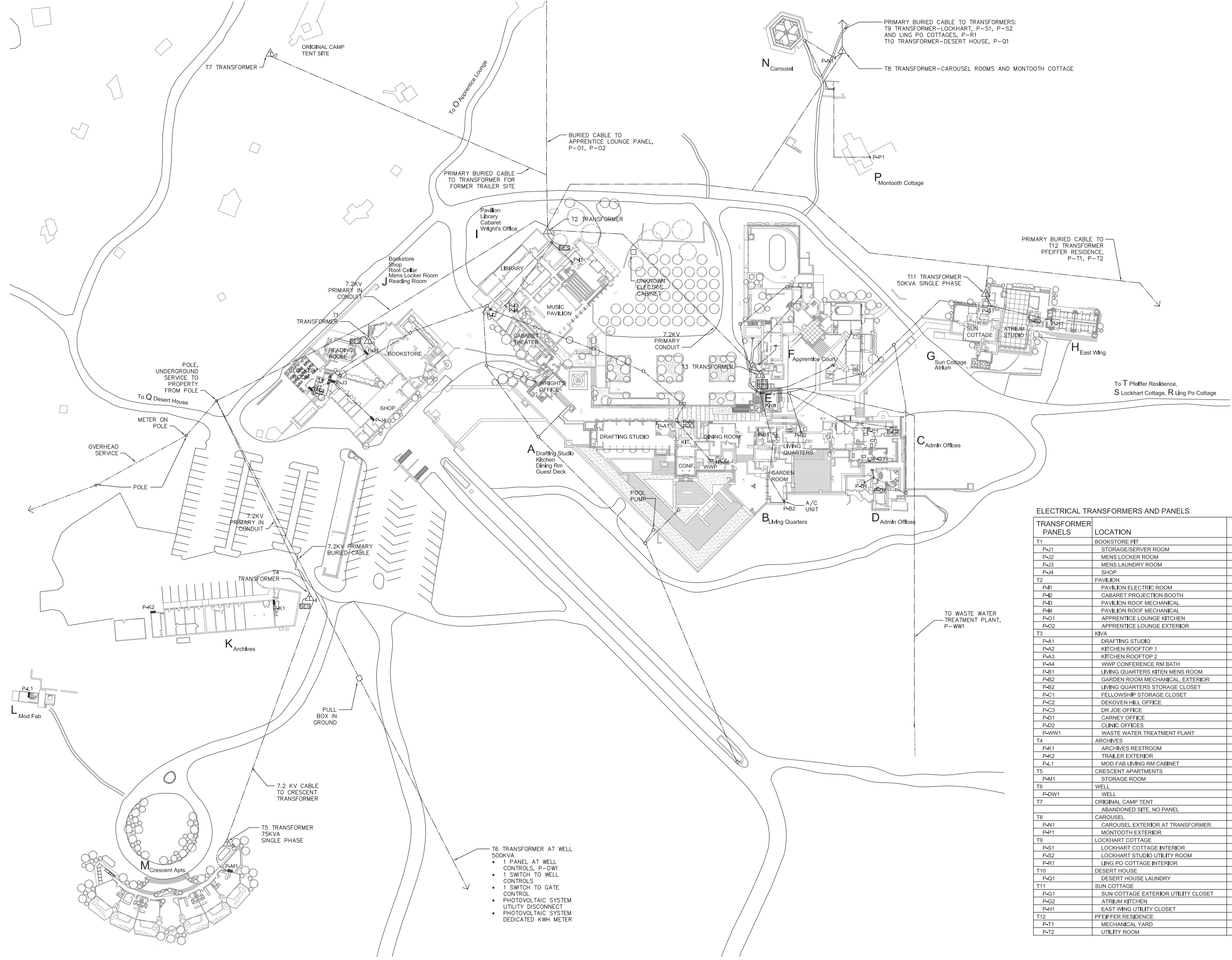
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OVERALL ELECTRIC PLAN

ELECTRICAL TRANSFORMERS AND PANELS

TRANSFORMER PANELS	LOCATION
T1	BOOKSTORE PIT
P-11	STORAGE/SERVER ROOM
P-12	MENS LOCKER ROOM
P-13	MENS LAUNDRY ROOM
P-14	SHOP
T2	PAVILION
P-11	PAVILION ELECTRIC ROOM
P-12	CABARET PROJECTION BOOTH
P-13	PAVILION ROOF MECHANICAL
P-14	PAVILION ROOF MECHANICAL
P-01	APPRENTICE LOUNGE KITCHEN
P-02	APPRENTICE LOUNGE EXTERIOR
T3	KIVA
P-A1	DRAFTING STUDIO
P-A2	KITCHEN ROOFTOP 1
P-A3	KITCHEN ROOFTOP 2
P-A4	WWP CONFERENCE RM BATH
P-B1	LIVING QUARTERS KITCHEN MENS ROOM
P-B2	GARDEN ROOM MECHANICAL, EXTERIOR
P-B2	LIVING QUARTERS STORAGE CLOSET
P-C1	FELLOWSHIP STORAGE CLOSET
P-C2	DEKOVEN HILL OFFICE
P-C3	DR. JOE OFFICE
P-D1	CARNEY OFFICE
P-D2	CLINIC OFFICES
P-WW1	WASTE WATER TREATMENT PLANT
T4	ARCHIVES
P-K1	ARCHIVES RESTROOM
P-K2	TRAILER EXTERIOR
P-L1	MOD FAB LIVING RM CABINET
T5	CRESCENT APARTMENTS
P-M1	STORAGE ROOM
T6	WELL
P-DW1	WELL
T7	ORIGINAL CAMP TENT
	ABANDONED SITE, NO PANEL
T8	CAROUSEL
P-N1	CAROUSEL EXTERIOR AT TRANSFORMER
P-P1	MONTOOTH EXTERIOR
T9	LOCKHART COTTAGE
P-S1	LOCKHART COTTAGE INTERIOR
P-S2	LOCKHART STUDIO UTILITY ROOM
P-R1	LING PO COTTAGE INTERIOR
T10	DESERT HOUSE
P-Q1	DESERT HOUSE LAUNDRY
T11	SUN COTTAGE
P-G1	SUN COTTAGE EXTERIOR UTILITY CLOSET
P-G2	ATRIUM KITCHEN
P-H1	EAST WING UTILITY CLOSET
T12	PFEIFFER RESIDENCE
P-T1	MECHANICAL YARD
P-T2	UTILITY ROOM

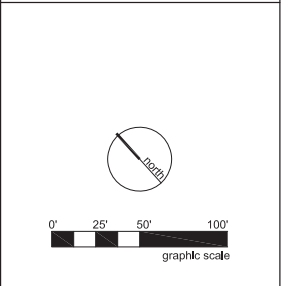
- T6 TRANSFORMER AT WELL 500KVA
- 1 PANEL AT WELL CONTROLS, P-DW1
- 1 SWITCH TO WELL CONTROLS
- 1 SWITCH TO GATE CONTROL
- PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT
- PHOTOVOLTAIC SYSTEM DEDICATED KWH METER

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12. PRIORITIZATION OF WORK

Immediate Needs

There are a number of issues at Taliesin West that require immediate attention. These issues generally relate to the deterioration of roof membranes and structure and will require stabilization, repair and replacement of existing building materials and elements. It is recommended that the following projects be carried out as soon as possible to ensure the continued operation of the site and safety of its occupants:

- Replacement of all flat roofs. Many of the flat roofs are at the end their usable lives and leak when there is rain. These built-up membrane roof systems need to be replaced.
- Repair/Replacement of the Water Tower roof. The wood members and sheathing on the Water Tower roof are deteriorated and require repair. Elements that are damaged beyond repair will need to be replaced.
- Monitoring of the desert masonry roof structure on the Cabaret. The desert masonry roof structure on the Cabaret needs to be monitored to document deflection in the slab. See MCC 1200 Architectural Engineers' Report dated April 23, 2013.
- Replacement of the roof deck over the Kitchen. The roof deck over the Kitchen is in poor condition and needs to be replaced.
- Remediation of termite damaged wood elements. There is significant termite damage at many different locations around Taliesin West. Damaged wood requires repair and replacement.
- Stabilization of wood beams and roof on Original Dining Room. There is some noticeable deflection in the roof beams on the Original Dining Room (Board Room). This structure should be stabilized and reinforced. Where possible, historic material should be preserved.
- Preservation of Whitman Square. The red square with the Walt Whitman inscription needs immediate repair. The concrete is cracked into four sections and the paint heavily worn.
- Repair water pipes. There is an immediate need to repair underground piping that is leaking.

Recommended Further Studies & Reports

There are still many unknown facts that need to be understood about Taliesin West prior to commencing major restoration work. It is standard practice to have as complete an understanding of a building or landscape as possible before undertaking a major restoration project in order to ensure the best possible restoration treatment. The following studies and reports are recommended to be completed prior to the restoration of the buildings and landscape at Taliesin West:

- Cultural Landscape Report. The completion of this report will provide the design team with a better understanding of the history and evolution of the landscape at Taliesin West and help to develop a rational solution for all future landscape restoration work.
- Conservation Management Plan. The conservation management plan will identify and organize the information needed for the long term conservation of the historically significant contributing materials and features of Taliesin West.
- Primary Source Historical Research. Only a limited amount of primary source materials were reviewed for the development of the Preservation Master Plan. More in-depth research of primary sources including Wright's correspondence and project records will be necessary to develop a complete chronological history of the construction and alteration of buildings at Taliesin West.
- Materials and Finishes Analysis. In order to better understand the date of installation of existing materials, as well as their physical properties and conservation needs, a targeted materials analysis program is recommended to be conducted for representative materials of all contributing buildings at Taliesin West.
- Historic Structure Reports for Individual Building Components. An in-depth study of each building's history, material integrity and condition is recommended in order to ensure a more calculated and accurate restoration project.
- Historic Furnishings & Art Objects Report. Only select built-in furnishings and art objects were surveyed as part of the Preservation Master Plan. The furnishings and art are important to the history of Taliesin West and require further in-depth study and assessment.

Recommended Mock-ups

Mock-ups are recommended to determine the proper treatments for the restoration of the buildings and landscapes at Taliesin West. It is recommended that the Office be utilized for all building mock-ups because of its small size and current use requirements. The following mock-ups should be considered:

- Fabric roof panels on Wright's Office. Various types of fabric roof panels should be mocked up on the roof of the Office to determine which fabric will perform the best in the desert climate while also transmitting the same quality of light that existed with the original canvas panels.
- Wood beams on Wright's Office. Mock-ups of the built-up wood beams should be installed on the Office to find a solution that keeps the same profile and relationship to the fabric panels as the system that was in place in during the Frank Lloyd Wright period while also providing adequate structural support for the roof.
- Desert masonry patches. Mock-ups of patches in the desert masonry wall should be installed on both the interior and exterior of the Office to ensure an acceptable match in color and texture of the concrete fill as well as the stone.
- Concrete paving repair/replacement. Mock-ups of patches and replacement of concrete paving should be mocked-up adjacent to existing paving to ensure an acceptable match in color and texture.

Infrastructure Upgrades

Infrastructure Upgrades are crucial to the long-term sustainability of Taliesin West. Many of the current site utilities are near the end of their usable life and will require full replacement in the near future. Other utilities require more immediate attention. Roads throughout the site require continued maintenance and repair. The following infrastructure upgrades are recommended:

- Site Utilities
 - Electrical Supply & Distribution* – It is recommended that the electrical supply and distribution system be upgraded to meet current standards and code requirements.
 - Water Supply & Waste Water Management* – The water supply and waste water management systems require significant upgrades. Some immediate repairs are necessary to fix leaks in the underground piping.
- Repair entry drive. The entry drive needs to be repaired and resurfaced to accommodate all visitors and staff that travel over it each day.

Rehabilitation/Restoration Projects

The ultimate goal is to fully restore the buildings and landscape at Taliesin West so that the site can continue to function as a place for learning, living, and working; and so that visitors to the site can continue to appreciate the remarkable architecture of Frank Lloyd Wright. It is understood that it is unlikely that the entire complex will be restored at the same time. Therefore, it is recommended that the buildings and grounds be restored and rehabilitated based on their levels of significance. The following buildings and spaces are recommended for restoration:

- Buildings & Spaces in Preservation Zone 1. As the most significant spaces on campus, projects focusing on buildings and landscapes in Preservation Zone 1 should be completed first. These buildings and spaces include:
 - Office
 - Drafting Studio
 - Original Dining Room (Board Room)
 - Kiva
 - Wes Peters/Gene Masselink Rooms
 - Garden Room
 - Cabaret
 - Prow
 - Light Tower
 - Bell Tower

- Buildings & Spaces in Preservation Zone 2. Projects focusing on buildings and landscapes in Preservation Zone 2 should be completed following Preservation Zone 1. These buildings and spaces include:
 - Dining Room
 - Kitchen
 - Guest Deck
 - Apprentice Court
 - Shops
 - Men's Locker Room
 - Citrus Grove

- Buildings & Spaces in Preservation Zone 3. Projects focusing on buildings in Preservation Zone 3 should be completed following Preservation Zone 2. These buildings and spaces include:
 - Pavilion
 - Sun Cottage

- Buildings & Spaces in Preservation Zone 4. It is recommended that buildings and spaces in Preservation Zone 4 be renovated based on the immediate and future programmatic needs of the Frank Lloyd Wright Foundation:
 - Finance Office
 - DeKoven Hill Office
 - Dr. Joe Office
 - Clinic Office
 - Carney Office
 - Tower Office
 - Atrium
 - East Wing
 - Library and Storage
 - Bookstore
 - Reading Room
 - Fellowship Pool

New Construction

New construction may be required in order to make Taliesin West more sustainable for the future and to accommodate the thousands of visitors that travel to the site each year. The following new buildings are recommended:

- New Visitors' Center. A new visitors' center would provide the Foundation with a state of the art facility to interpret the history of Taliesin West and architect Frank Lloyd Wright; display items from the vast collection at Taliesin West; and offer a starting point for tours of the site. It is recommended that this building be removed and/or blocked visually from the central historic core of Taliesin West.

APPENDIX A

GLOSSARY

KEY TERMS:

Adaptive Reuse:

A new use for a structure or landscape other than the historic use, normally entailing some modification of the structure or landscape (National Park Service).

Apprentice:

A person who learns a job or skill by working for a fixed period of time for someone who is very good at that job or skill (Merriam-Webster online). Frank Lloyd Wright used this term to describe the men and women that worked for and learned from him at Taliesin and Taliesin West.

Archeological Resource:

Any material remains or physical evidence of past human life or activities that are of archeological interest, including the record of the effects of human activities on the environment. An archeological resource is capable of revealing scientific or humanistic information through archeological research (National Park Service).

Architectural Conservation:

Describes all interventions pursued by architectural conservators to preserve the integrity of built objects, directed toward the long-term safekeeping of architectural heritage (Getty Vocabularies, Getty Research Institute).

Architectural Significance:

Importance of a property based on physical aspects of its design, materials, form, style, or workmanship (National Park Service).

Authenticity:

The quality of being genuine or original (Getty Vocabularies, Getty Research Institute).

Bearing Wall:

A wall that fulfills a primary structural role as a vertical support for loads other than its self-weight (Feilden).

Built Environment:

The aggregate of human-made structures, infrastructural elements and associated spaces and features (Getty Vocabularies, Getty Research Institute).

Caliche:

A layer of soil in which the soil particles have been cemented together by lime (calcium carbonate, CaCO_3). It is usually found as a light-colored layer in the soil or as white or cream-colored concretions (lumps) mixed with the soil (AZ Master Gardener Manual – U of Arizona).

Condition Assessment:

In the realm of cultural heritage, generally refers to an assessment of the overall physical condition, characteristics, and completeness of a work of art, artifact, or architecture at a particular time (Getty Vocabularies, Getty Research Institute).

Contributing Resource:

A building, site, structure, or object adding to the historic significance of a property (National Park Service).

Cultural Heritage:

The belief systems, values, philosophical systems, knowledge, behaviors, customs, arts, history, experience, languages, social relationships, institutions, and material goods and creations belonging to a group of people and transmitted from one generation to another. The group of people or society

may be bound together by race, age, ethnicity, language, national origin, religion, or other social categories or groupings (Getty Vocabularies, Getty Research Institute).

Cultural Landscape:

A geographic area, including both cultural and natural resources, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. There are four non-mutually exclusive types of cultural landscapes: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (National Park Service).

Cultural Resource:

An aspect of a cultural system that is valued by or significantly representative of a culture, or that contains significant information about a culture. A cultural resource may be a tangible entity or a cultural practice and typically greater than 50 years of age. Tangible cultural resources are categorized as districts, sites, buildings, structures, and objects for the National Register of Historic Places, and as archeological resources, cultural landscapes, structures, museum objects, and ethnographic resources for NPS management purposes. By their nature, cultural resources are non-renewable (National Park Service).

Cultural Significance:

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups (Burra Charter).

Desert Masonry:

Term used to describe the method of construction used by Frank Lloyd Wright and his apprentices at Taliesin West. Desert masonry consists of native stones set in a concrete mix in which the flat face of the stones are exposed on the outer face of the wall.

Documentation:

Information that describes, locates, and explains the significance of a historic property (National Park Service).

Environmental Management:

An attempt to control human impact on and interaction with the environment in order to preserve natural resources (Dictionary.com).

Ethnographic Resources:

Objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples. Research and consultation with associated people identifies and explains the places and things they find culturally meaningful. Ethnographic resources eligible for the National Register of Historic Places are called traditional cultural properties (National Park Service).

Evaluation:

Process by which the significance and integrity of a historic property are judged and eligibility for National Register listing is determined (How to Apply National Register Criteria for Evaluation Bulletin, National Park Service).

Fabric:

Fabric means all the physical material of the place including components, fixtures, contents, and objects (Burra Charter).

Fiberthin:

A vinyl-covered nylon fabric produced by the U.S. Rubber Company (*Life Magazine*, Nov. 11, 1957, 134).

Heritage:

Any asset or group of assets, natural or cultural, tangible or intangible, that a community recognizes for its value as a witness to history and memory, while emphasizing the need to safeguard, to protect, to adopt, to promote and to disseminate such heritage (ICOMOS Heritage Conservation Terminology).

Historic:

Having great and lasting importance. Known or established in the past. Dating from or preserved from a past time or culture (Merriam-Webster online).

Historic Building:

Buildings that are significant in the history of architecture, that incorporate significant architectural features, or that played significant historic roles in local cultural or social development; may or may not be officially designated (Getty Vocabularies, Getty Research Institute).

Historic Character:

The sum of all visual aspects, features, materials, and spaces associated with the historic nature of a site, structure, or landscape (National Park Service).

Historic Context:

An organizing structure for interpreting history that groups information about historic properties which share a common theme, common geographical location, and common time period. The development of historic contexts is a foundation for decisions about the planning, identification, evaluation, registration, and treatment of historic properties, based upon comparative significance (National Park Service).

Historic Finishes Analysis:

The process of investigating, analyzing and documenting historic architectural finishes. The process most commonly includes a combination of site investigation, removal of samples for examination in the laboratory, and laboratory analysis of the samples. The latter analysis almost always includes examination of the finish samples in cross-section under high magnification to document finish layer stratigraphies, and can also involve instrumental analysis such as Fourier Transform Infrared Spectroscopy (FTIR) to identify binding media and Scanning Electron Microscopy/Elemental Dispersive Spectrometry (SEM/EDS) to identify pigments. The documentation that results from the historic finishes analysis usually includes a written report with paint layer stratigraphies and color matches to the target finish layers - i.e., the finish layers associated with the site's particular period of significance or interpretation (Building Conservation Associates).

Historic Integrity:

The authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period (National Park Service).

Historic Landscape:

An area that has had associated with it an event or series of events of historical note. A historic landscape may also be the visual perception of a particular period of civilization, a way of life, or pattern of living (Murtagh).

Historic Materials Analysis:

The process by which a small portion (sample) of a historic material is examined in the laboratory in order to better understand its composition, physical characteristics, appearance and overall condition. A range of analytical techniques can be used for this type of examination; the technique used

depends on the material being investigated as well as the type of information that is being looked for. Examples include: visual examination using a stereo-microscope; petrographic examination of historic mortar; x-ray diffraction of crystalline material such as salt efflorescence; and Fourier Transform Infrared Spectroscopy (FTIR) to identify the composition of paint coatings (Building Conservation Associates).

Historic Preservation:

Identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance, research, interpretation, conservation, and education and training regarding the foregoing activities, or any combination of the foregoing activities (National Historic Preservation Act of 1966).

Historic Resource:

Building, site, district, object, or structure evaluated as historically significant (How to Apply National Register Criteria for Evaluation Bulletin, National Park Service).

Historic Significance:

The importance of a property to the history, architecture, archeology, engineering, or culture of a community, State, or the nation (National Park Service).

Historic Structure Report:

A historic structure report provides documentary, graphic, and physical information about a property's history and existing condition. Broadly recognized as an effective part of preservation planning, a historic structure report also addresses management or owner goals for the use or re-use of the property. It provides a thoughtfully considered argument for selecting the most appropriate approach to treatment, prior to the commencement of work, and outlines a scope of recommended work. The report serves as an important guide for all changes made to a historic property during a project-repair, rehabilitation, or restoration-and can also provide information for maintenance procedures. Finally, it records the findings of research and investigation, as well as the processes of physical work, for future researchers (Preservation Brief 43, National Park Service).

Historic Property:

A district, site, building, structure, or object significant in the history of American archeology, architecture, culture, engineering, or politics at the national, state, or local level (National Park Service).

Hohokam:

A prehistoric desert culture of the southwestern United States centering in the Gila Valley of Arizona and characterized especially by irrigated agriculture (Merriam-Webster online).

Impact:

The likely effects of an action or proposed action upon specific natural, cultural, or socioeconomic resources. Impacts may be direct (occurring at the same time and place as the action itself), indirect (occurring later in time or farther removed in distance from the action yet are reasonably foreseeable), individual, cumulative, beneficial, or adverse (National Park Service).

Interpretation:

The educational methods by which the history and meaning of historic sites, buildings, objects, districts, and structures are explained by use of docents, leaflets, tape recordings, signs, film, and other means (Murtagh).

Kiva:

A subterranean ceremonial and social chamber built by the Pueblo Indians of the southwestern United States, particularly notable for the colorful mural paintings decorating the walls. The traditional round shape of the earliest kivas contrasts with square and rectangular forms common in residential Pueblo architecture. The circular shape recalls the round pit houses of the prehistoric Ancestral Pueblo (Anasazi)

from whom the Pueblo tribes are thought to have descended (Encyclopedia Britannica). Wright used the term “kiva” in his *Autobiography* to describe the desert masonry structure originally constructed at Taliesin West as a theater.

Legacy:

Something transmitted by or received from an ancestor or predecessor or from the past (Merriam-Webster online).

Level of Significance:

Geographical level local, State, or national at which a historic property has been evaluated and found to be significant (National Park Service).

Materials:

Quality of integrity applying to the physical elements that were combined or deposited in a particular pattern or configuration to form a historic property (National Park Service).

Mortar:

A plastic building material (as a mixture of cement, lime, or gypsum plaster with sand and water) that hardens and is used in masonry or plastering (Merriam-Webster online).

National Historic Landmark:

A district, site, building, structure, landscape, or object of national historical significance designated by the Secretary of the Interior under authority of the Historic Sites Act of 1935 and entered in the National Register of Historic Places. There were approximately 2,500 National Historic Landmarks listed in the United States at the time of this report in 2015 (National Park Service).

National Register of Historic Places:

The comprehensive list of districts, sites, buildings, structures, and objects of national, regional, state, and local significance in American history, architecture, archeology, engineering, and culture. This list is maintained by the National Park Service under authority of the National Historic Preservation Act of 1966. There were more than 85,000 individually listed sites and more than 13,600 historic districts encompassing over 1 million properties at the time of this report in 2015 (National Park Service).

Noncontributing Resource:

A building, site, structure, or object that does not add to the historic significance of a property (National Park Service).

Non-native Species:

Species of plants or wildlife that are not native to a particular area and often interfere with natural biological systems (National Park Service).

Ocotilla (Ocotillo):

A thorny scarlet-flowered candlewood (*Fouquieria splendens* of the family Fouquieriaceae) of the southwestern United States and Mexico (Merriam-Webster online). Frank Lloyd Wright named his first desert camp near Chandler, Arizona after this desert plant.

Pergola:

A structure usually consisting of parallel colonnades supporting an open roof of girders and cross rafters (Merriam-Webster online).

Period of Significance:

Period of significance refers to the span of time during which significant events and activities occurred (National Park Service).

Petroglyph:

A carving or inscription on a rock (Merriam-Webster online).

Preservation:

The act or process of applying measures to sustain the existing form, integrity, and material of a historic structure, landscape, or object. Work may include preliminary measures to protect and stabilize the property, but generally focuses on the ongoing preservation, maintenance, and repair of historic materials and features rather than extensive replacement and new work (National Park Service).

Preservation Master Plan:

A Preservation Plan for a Historic Property is a planning and management tool that assembles information about a historic resource (including buildings, sites, structures, and archaeological resources) in order to provide the necessary information to responsibly deal with existing issues and concerns about the resource and plan for its future, guide implementation of recommendations resulting from the plan, and act as a reference source. It is a comprehensive document or series of documents that guides the development, prioritization, and implementation of repair, rehabilitation, and restoration projects, directs the use and maintenance of the historic property, and functions as a primary source of archival information for planning and reference (Georgia Department of Natural Resources, Historic Preservation Division).

Preservation Philosophy:

A set of ideas about how to do something; or an analysis of the grounds of and concepts expressing fundamental beliefs; or a theory underlying or regarding a sphere of activity or thought (Merriam-Webster online) – in this case as it relates to preservation.

Prow:

A pointed projecting front part. Also used to describe the bow of a ship (Merriam-Webster online). The term is used at Taliesin West to describe the triangular landscaped area on the south side of the core buildings.

Reconstruction:

The act or process of depicting, by means of new work, the form, features, and detailing of a non-surviving historic structure or landscape for the purpose of replicating its appearance at a specific time and in its historic location. (The term also refers to the resulting structure or landscape.) (National Park Service)

Rehabilitation:

The act or process of making possible an efficient, compatible use for a historic structure or landscape through repair, alterations, and additions while preserving the portions or features which convey the historical, cultural, and architectural values (National Park Service).

Restoration:

The act or process of accurately depicting the form, features, and character of an existing historic structure, landscape, or object as it appeared at a particular period of time, by removing modern additions and replacing lost portions of historic fabric, paint, or other elements (National Park Service).

Secretary of Interior's Standards for the Treatment of Historic Properties:

The Standards are a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations. The Guidelines offer general design and technical recommendations to assist in applying the Standards to a specific property. Together, they provide a framework and guidance for decision-making about work or changes to a historic property. The Standards and Guidelines can be applied to historic properties of all types, materials, construction, sizes, and use. They include both the exterior and the interior and extend to a property's landscape features, site, environment, as well as related new construction.

Federal agencies use the Standards and Guidelines in carrying out their historic preservation responsibilities. State and local officials use them in reviewing both Federal and nonfederal rehabilitation proposals. Historic district and planning commissions across the country use the Standards and Guidelines to guide their design review processes.

The Standards offer four distinct approaches to the treatment of historic properties—preservation, rehabilitation, restoration, and reconstruction with Guidelines for each. The Guidelines are advisory, not regulatory (Technical Preservation Services, National Park Service).

Sense of Place:

The sum total of those parts that give a particular site, area, or neighborhood a distinctive character unique to its locality (Murtagh).

Stabilization:

The act or process of applying measures designed to reestablish a weather-resistant enclosure and structural stability while maintaining the essential form as it exists at present (Murtagh).

Stewardship:

The cultural and natural resource protection ethic of employing the most effective concepts, techniques, equipment, and technology to prevent, avoid, or mitigate impacts that would compromise the integrity of park resources. This often grows from an understanding of and respect for the principles of the National Park System and the needs of the park's natural, social, and cultural environment (National Park Service).

Sustainability:

Ecological concept referring to preservation of natural resources through responsible use and stewardship. A component of sustainable development. In the conservation context, the term has been extended to include sustainability of cultural heritage resources (Getty Vocabularies, Getty Research Institute).

Taliesin Fellowship:

The organization established in 1932 by Frank Lloyd Wright and Olgivanna Lloyd Wright in which young apprentices would “learn by doing.” The apprentices paid a yearly fee to come to Taliesin and work under the leadership of the master.

Thermal Comfort:

That condition of mind that expresses satisfaction with the thermal environment and is assessed by subjective evaluation (ASHRAE Standard 55-2010).

Thermal Environment:

The characteristics of the environment that affect a person's heat loss (ASHRAE Standard 55-2010).

Treatment:

Work carried out to achieve a historic preservation goal. The four primary treatments are Preservation, Rehabilitation, Restoration, and Reconstruction (as stated in *Secretary of the Interior's Standards for the Treatment of Historic Properties*). (National Park Service)

Values:

Moral standards or principles held by a person, community, or participants in an enterprise which may philosophically inform the activities that these parties plan and undertake (Getty Vocabularies, Getty Research Institute).

World Heritage Sites:

Sites designated by the United Nations Educational, Scientific and Cultural Organization, or UNESCO, as exceptional examples of cultural values or natural phenomena (UNESCO).

Work of Art:

1. A product of one of the fine arts; *especially* : a painting or sculpture of high artistic quality.
2. Something giving high aesthetic satisfaction to the viewer or listener (Merriam-Webster online).

APPENDIX B
HISTORIC DRAWINGS

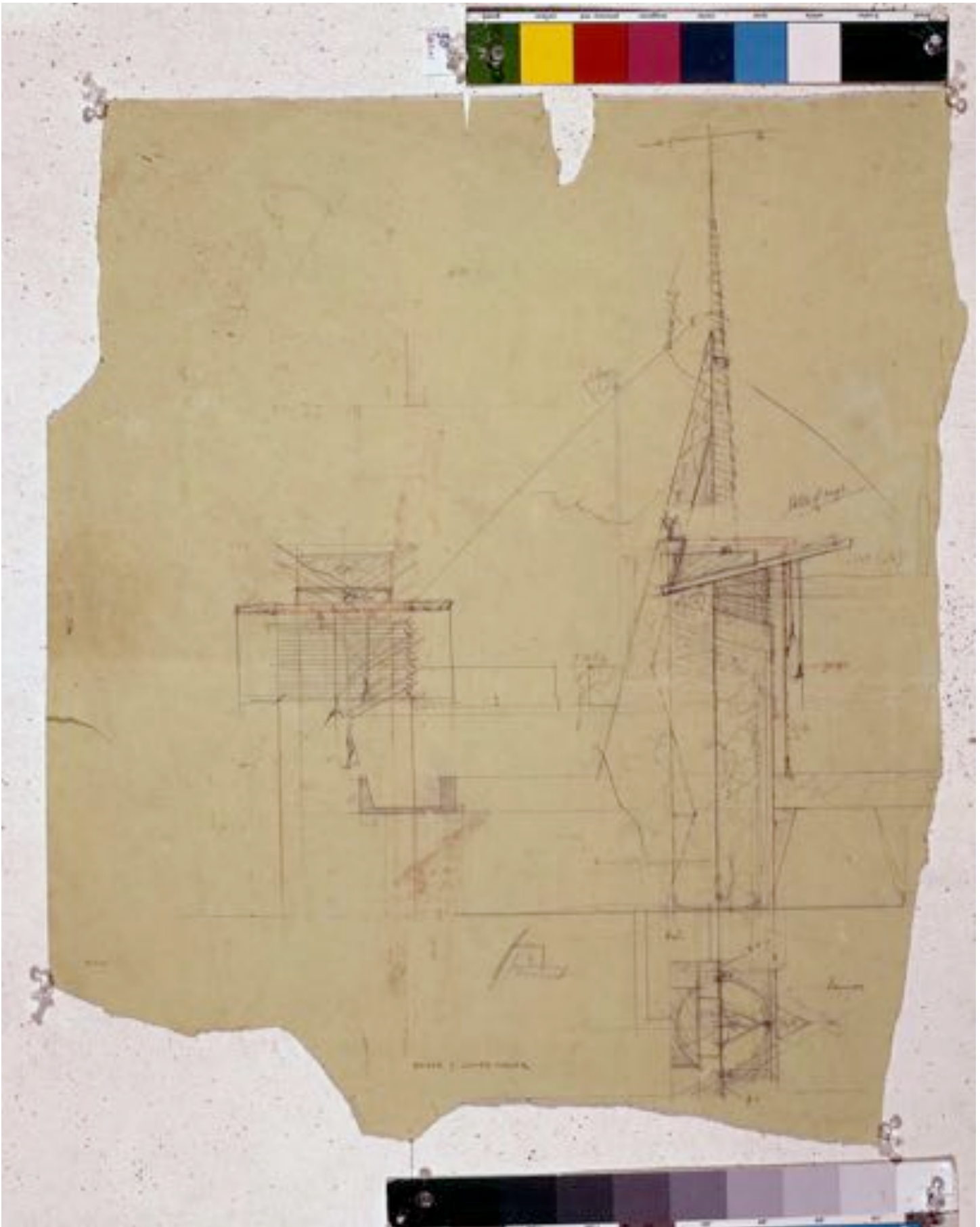


Figure B-1 - Bridge/Water Tower (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

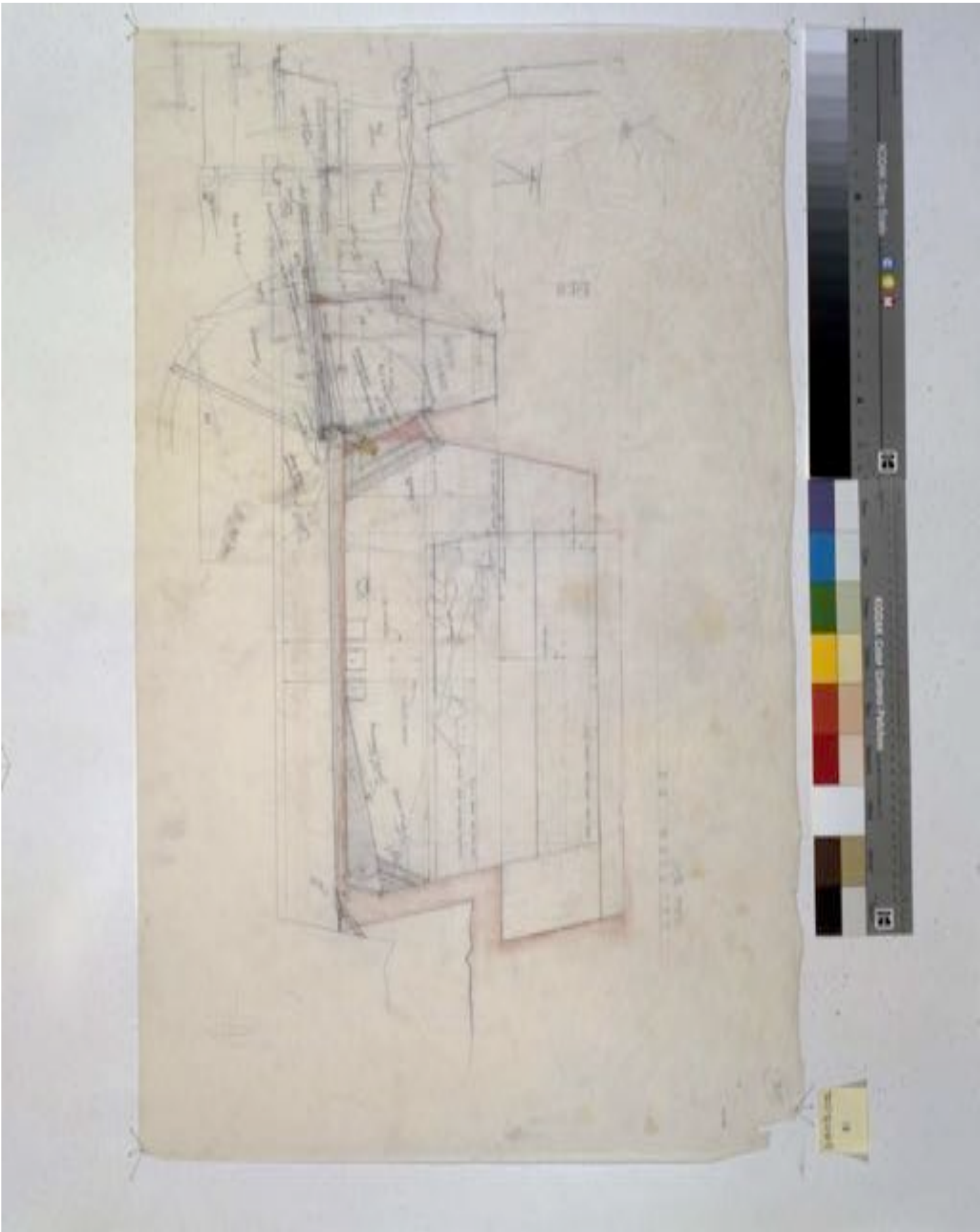


Figure B-2 - [Cabaret] Theater Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-3 - Air View, MOMA 1949 (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

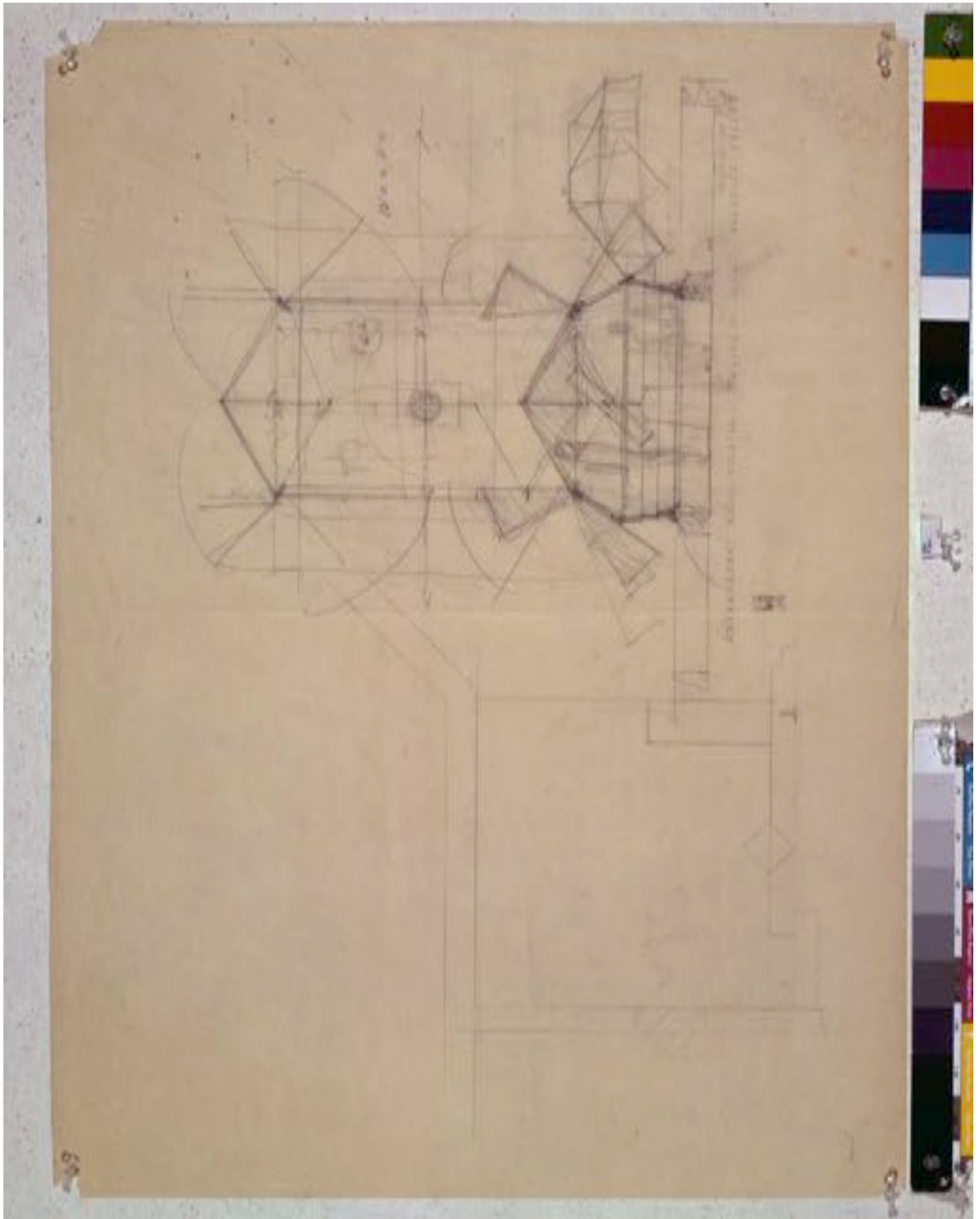


Figure B-4 - Observatory/Theatre (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

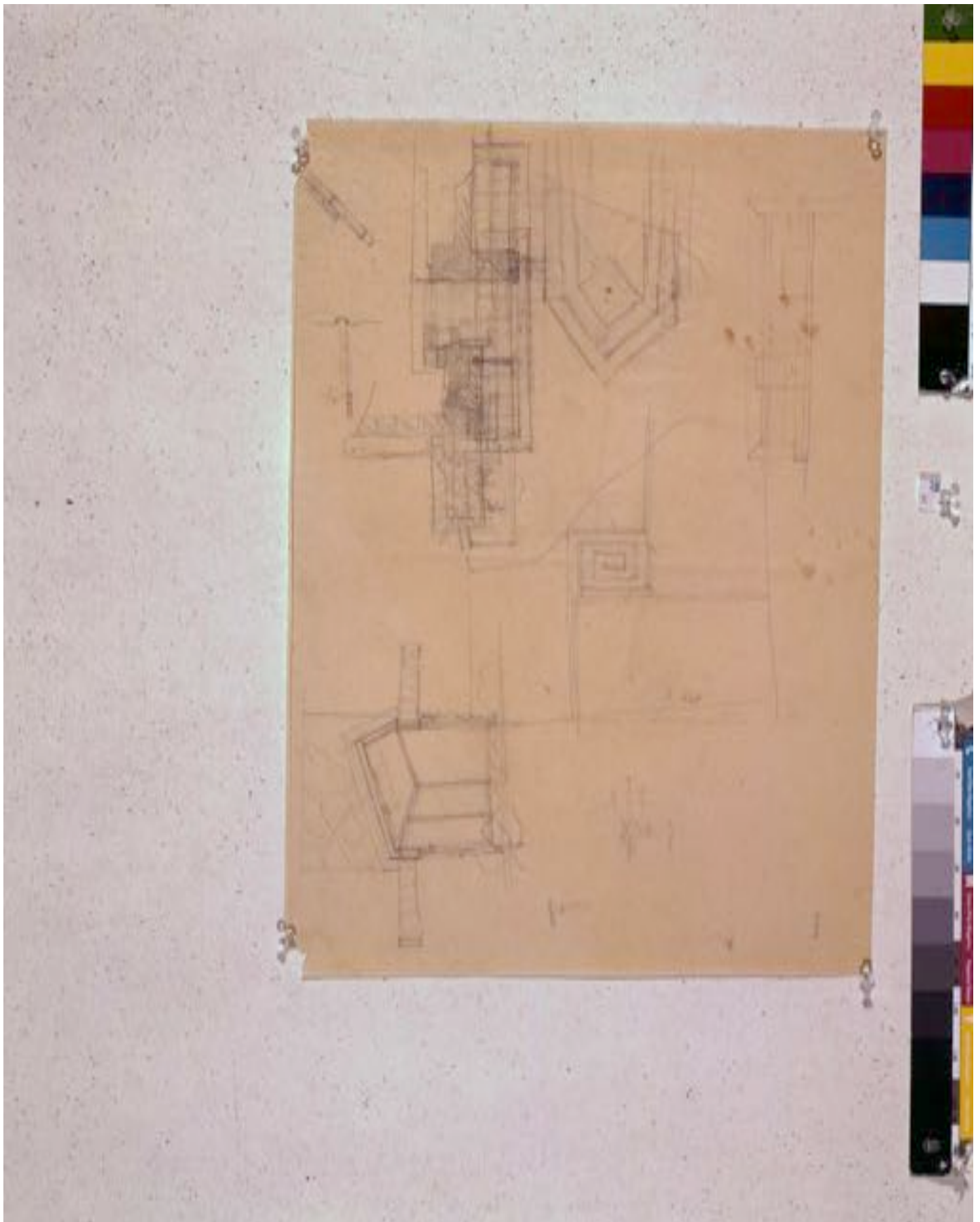


Figure B-5 - Theatre, Entry Pool (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

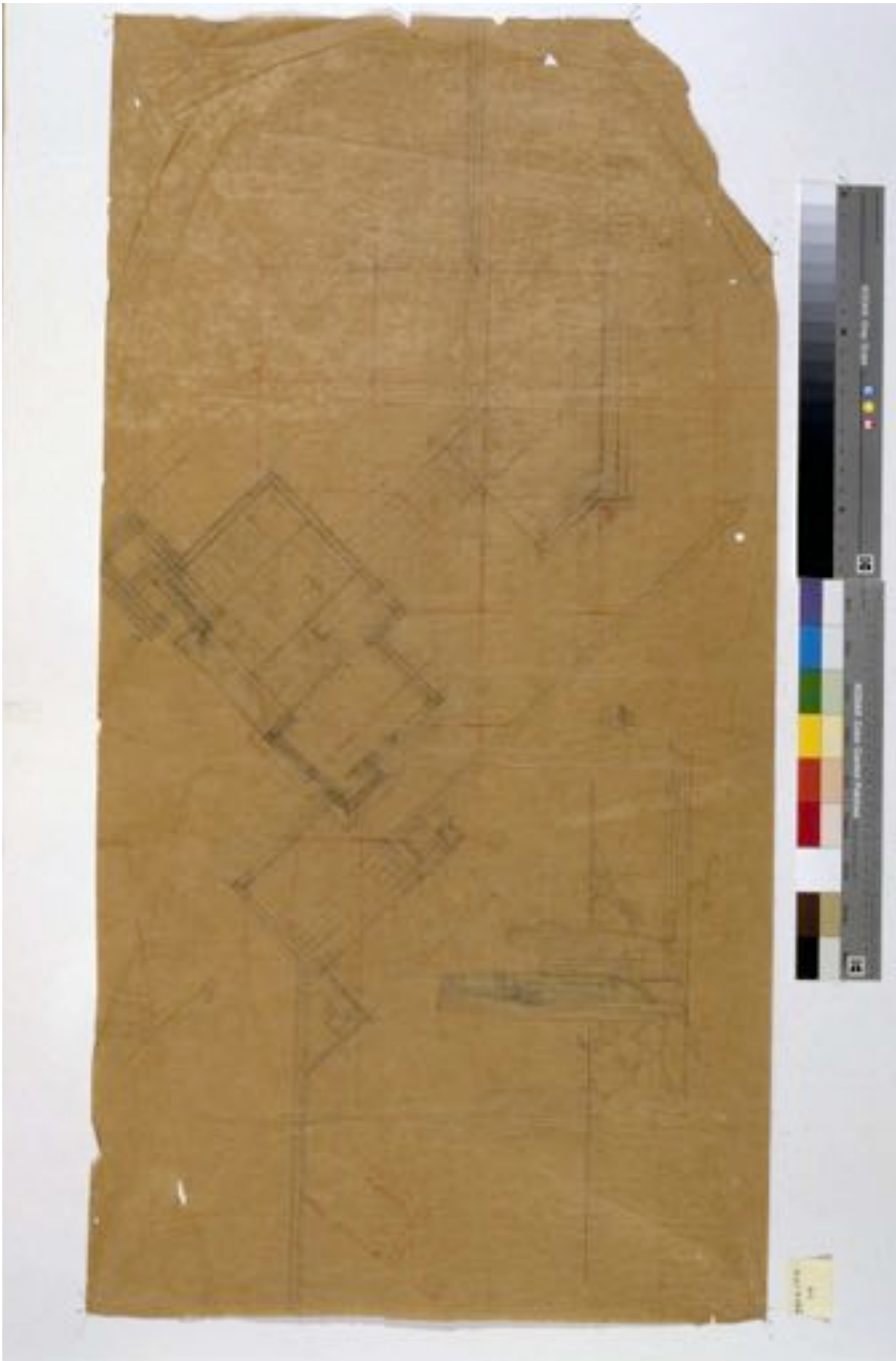


Figure B-6 - Office Plan, Saguaro (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

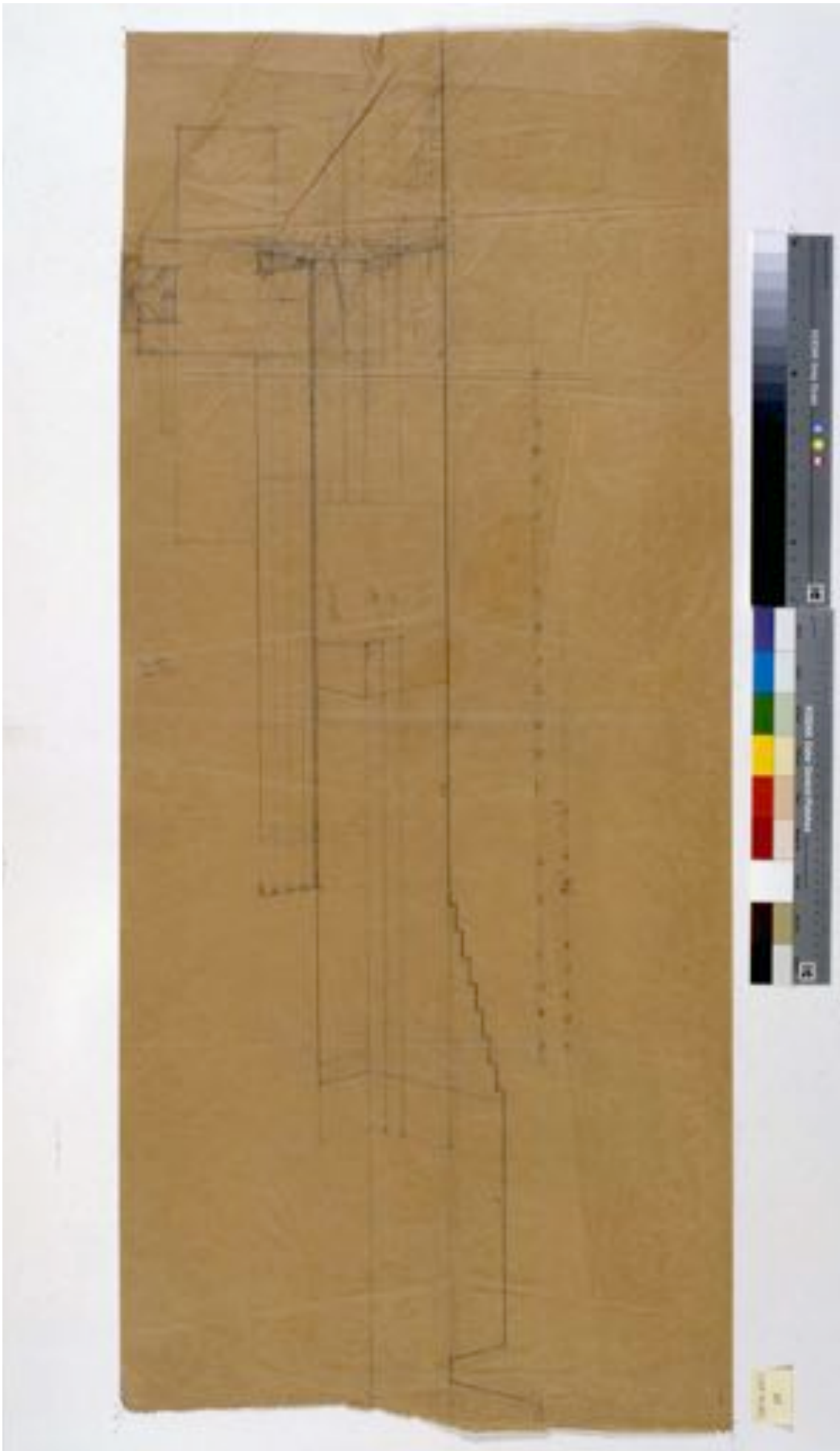


Figure B-7 - Section through Loggia (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-8 - Garden Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

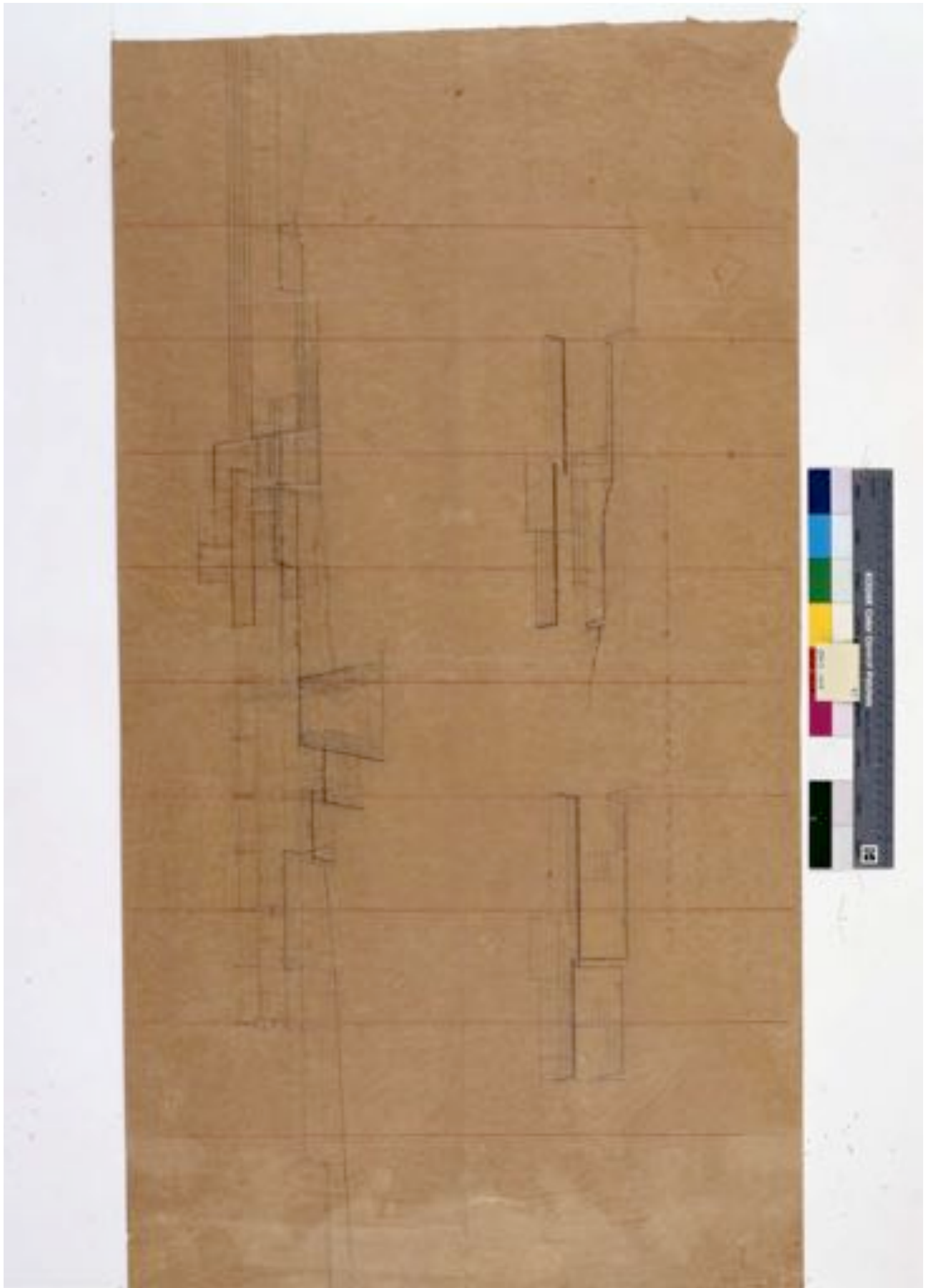


Figure B-9 - House [Wright Living Quarters] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-10 - Plan of House [Wright Living Quarters] Area (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

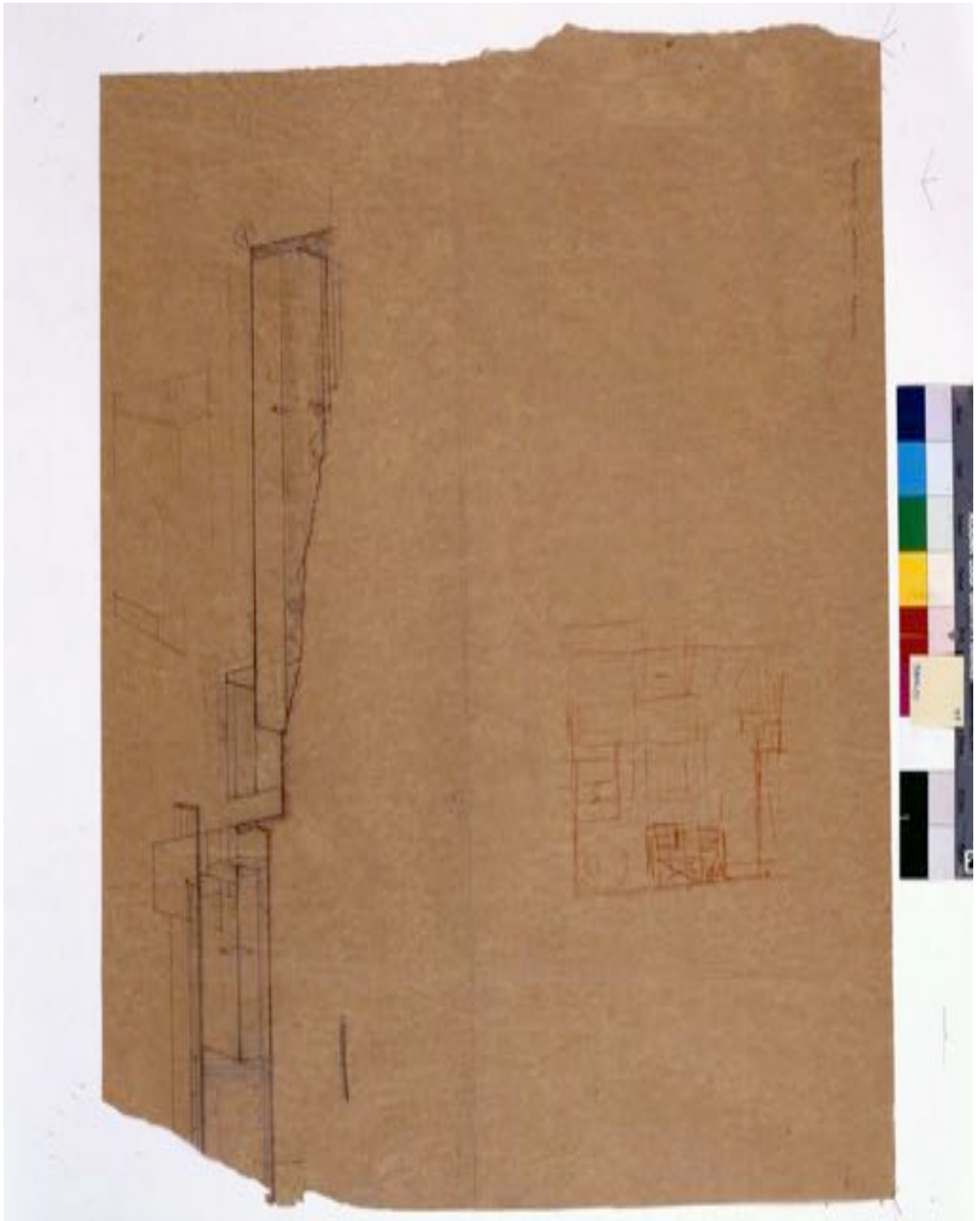


Figure B-11 - Section of House [Wright Living Quarters], fragment/plunge pool (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

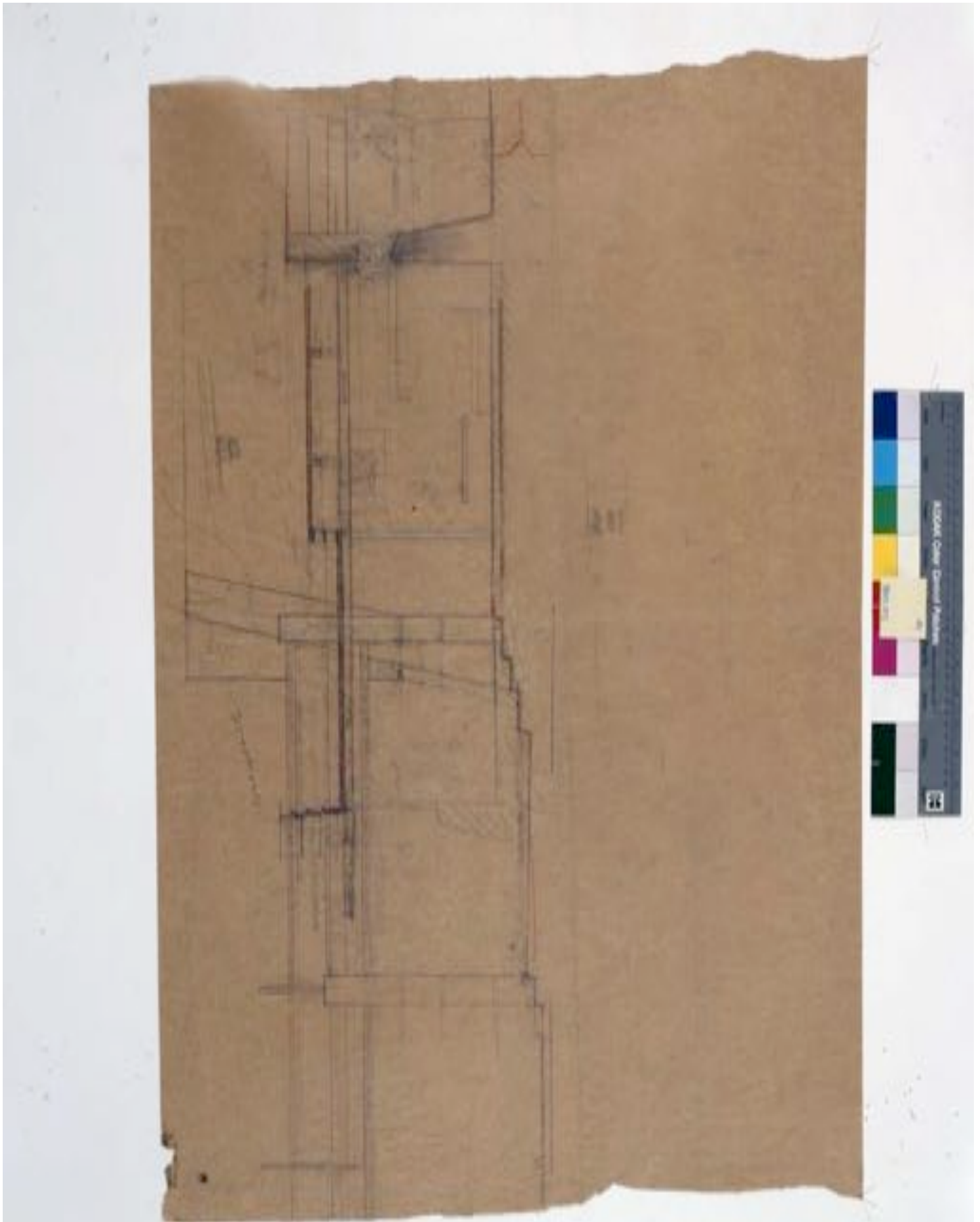


Figure B-12 - House [Wright Living Quarters] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

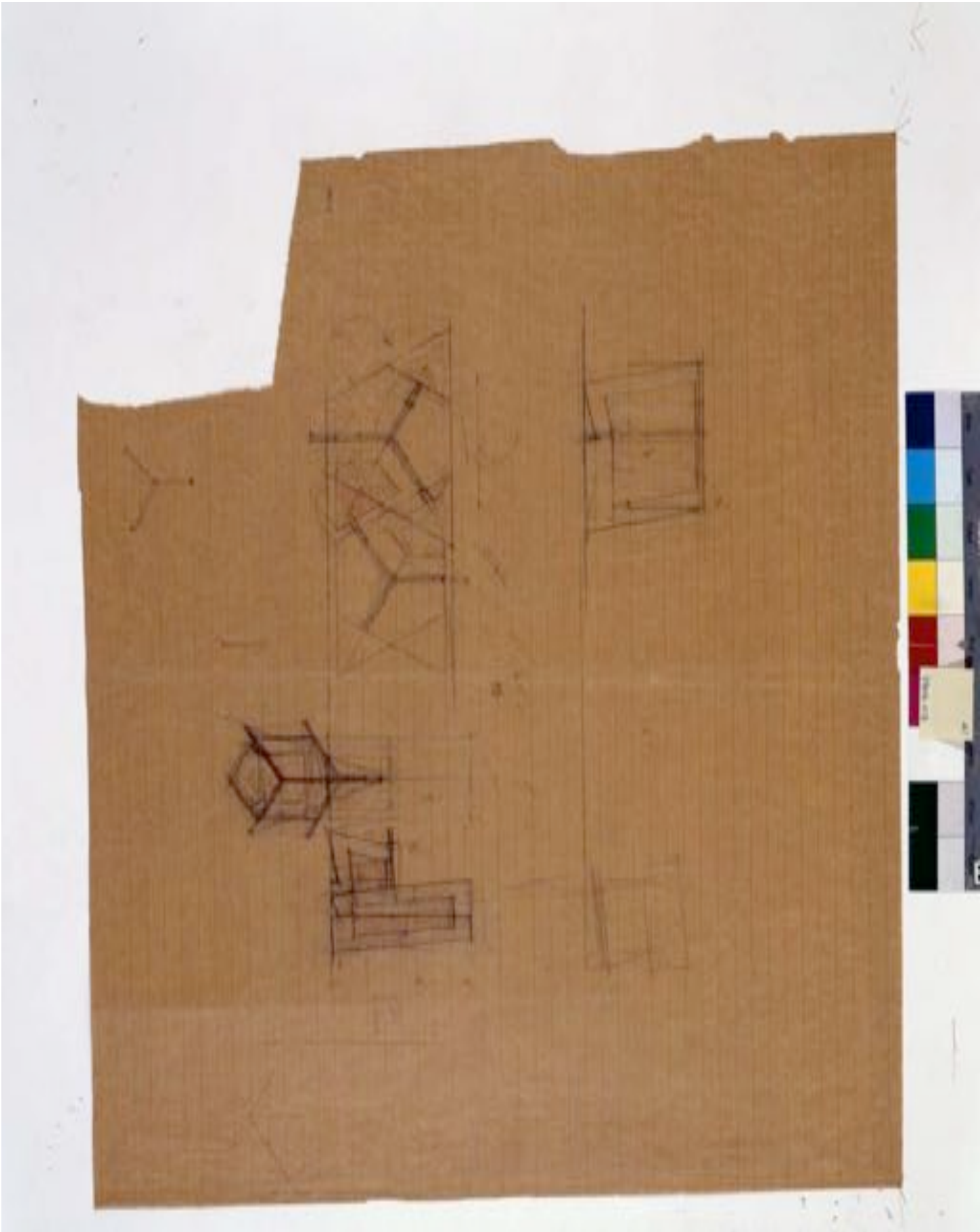


Figure B-13 - Table and Chair (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

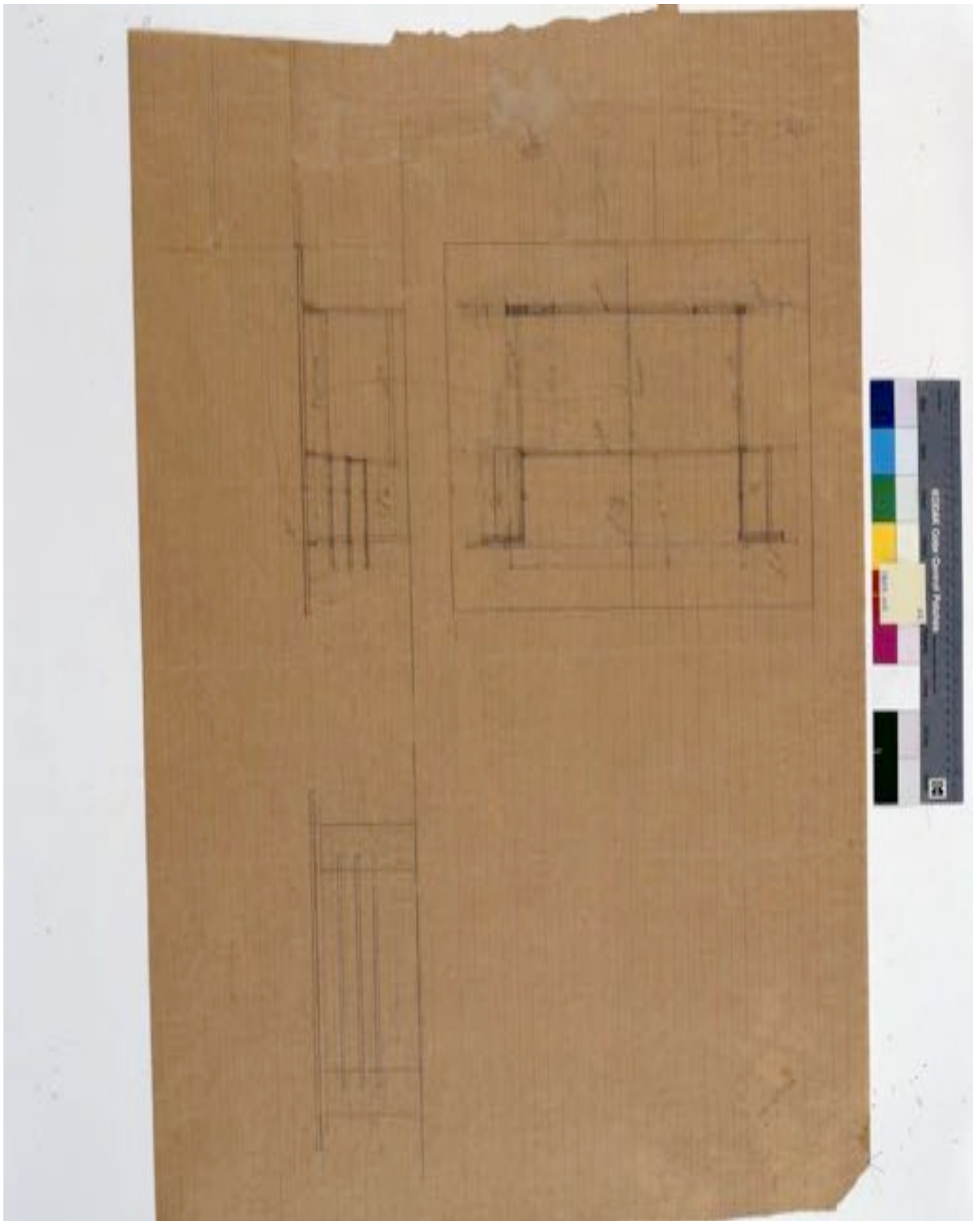


Figure B-14 - Drawing table (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-15 - Bell Tower/Kitchen Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-16 - Theatre Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-17 - Office Elevations (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

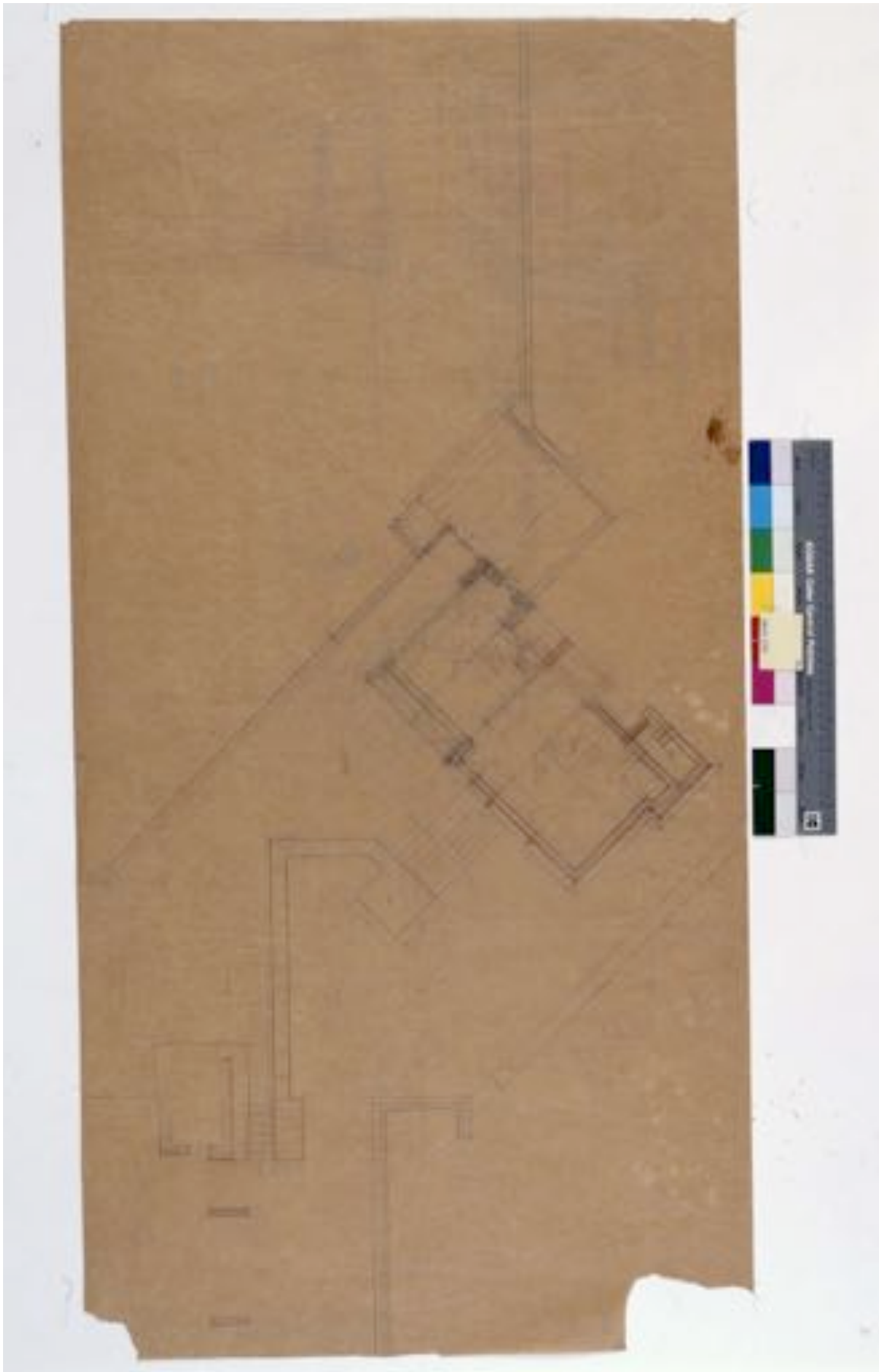


Figure B-18 - Office Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-19 - Office Elevations (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

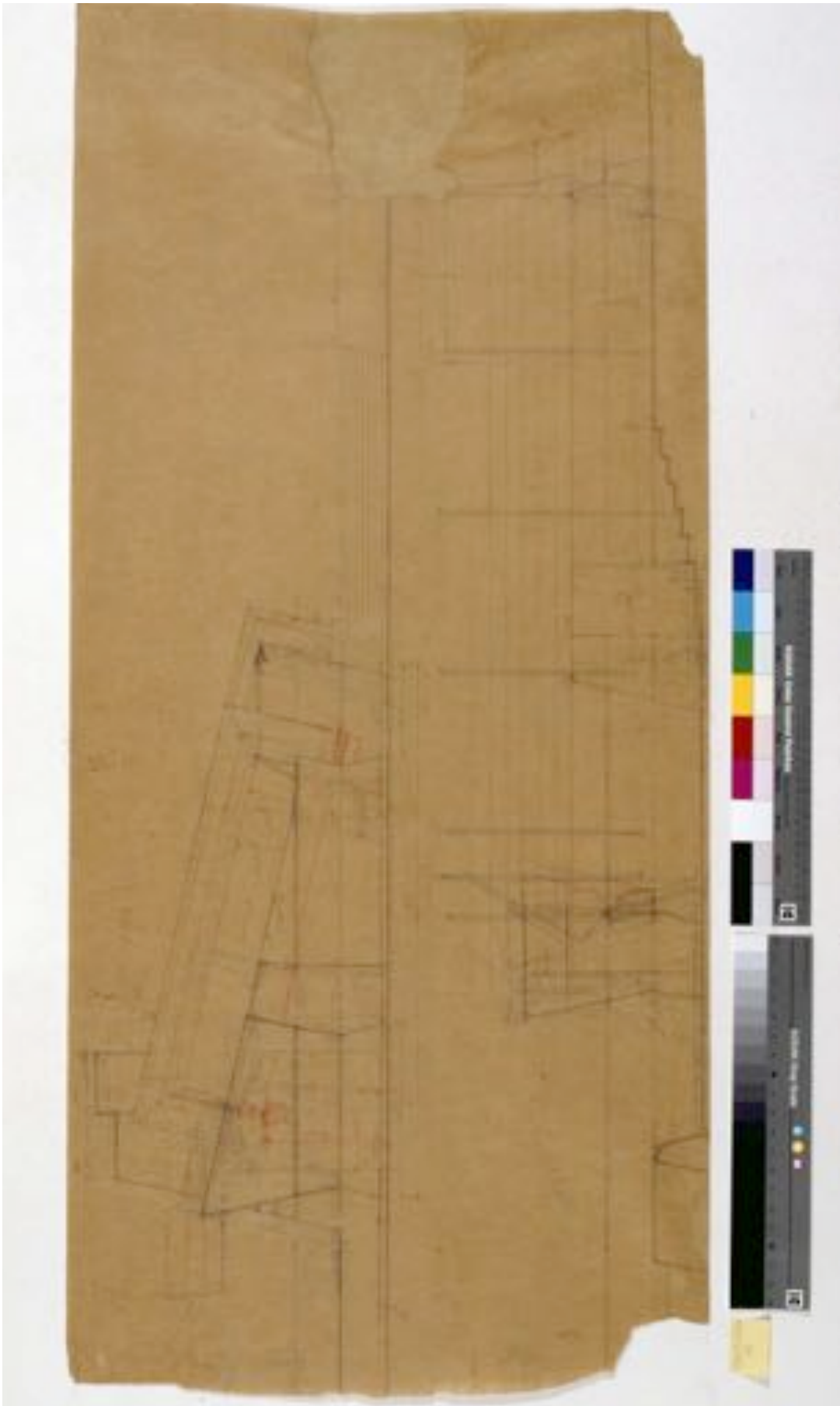


Figure B-20 - Office Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

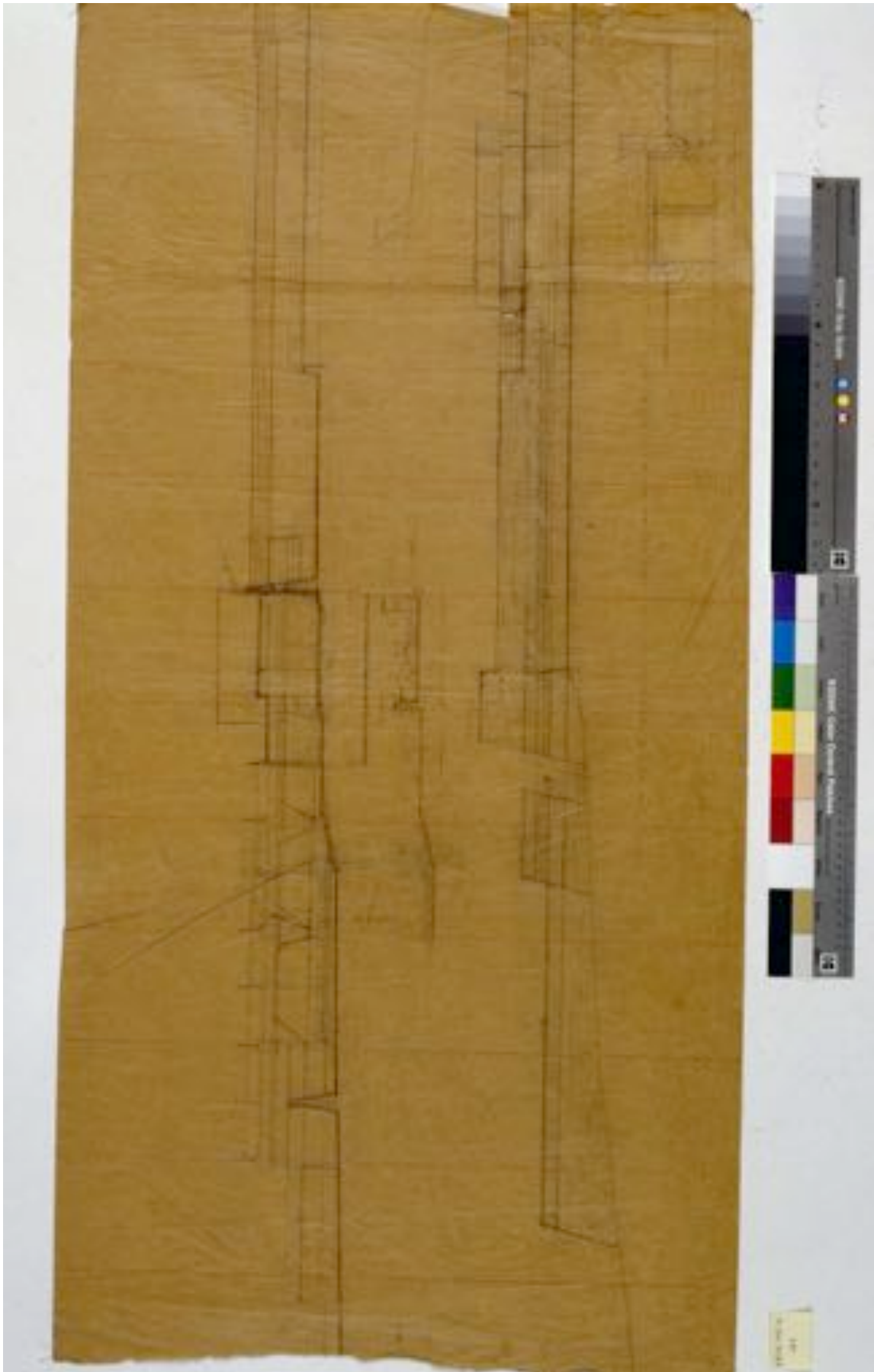


Figure B-21A - Full South Elevation A (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-21B - Full South Elevation B (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

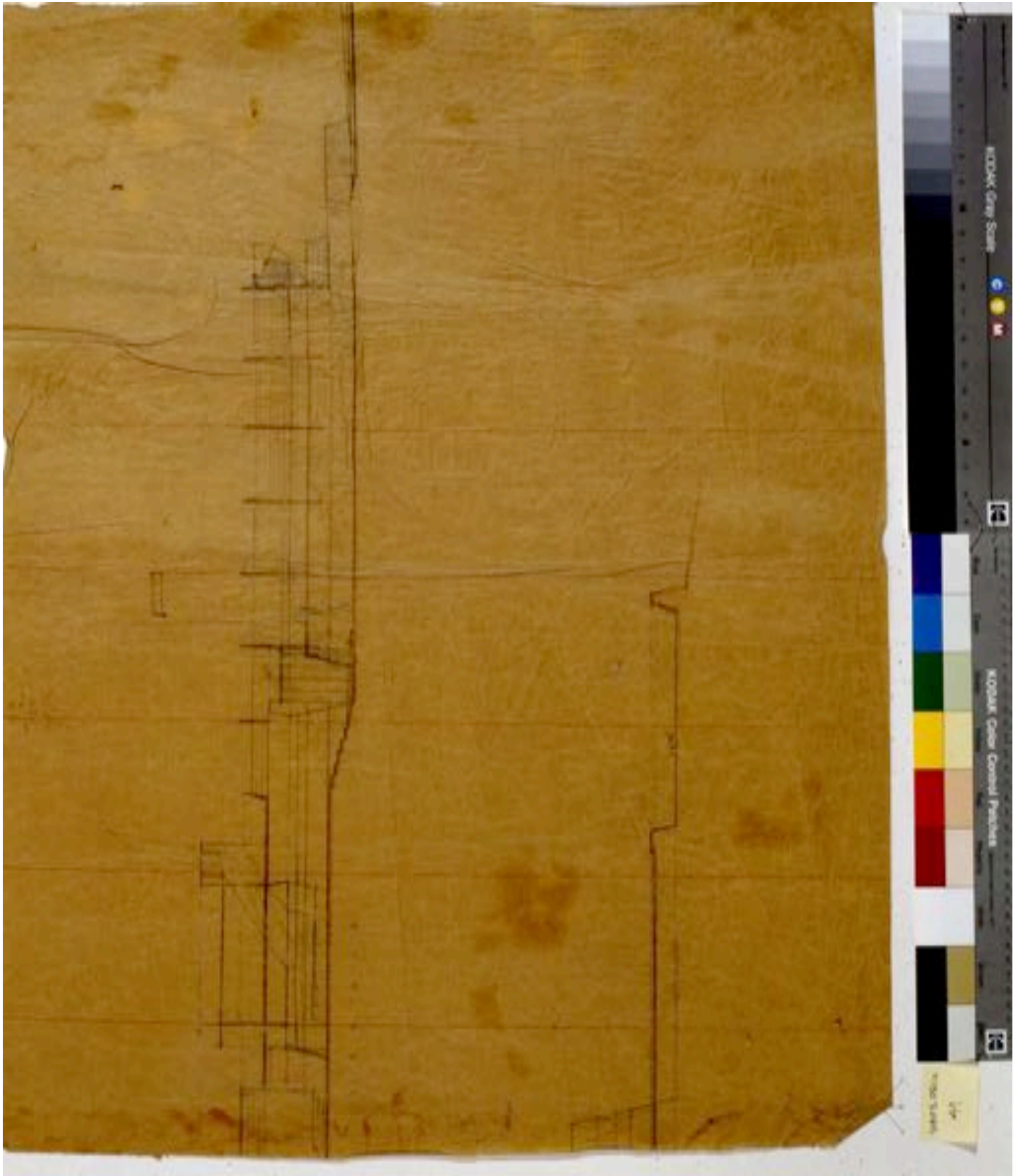


Figure B-21C - Full South Elevation C (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

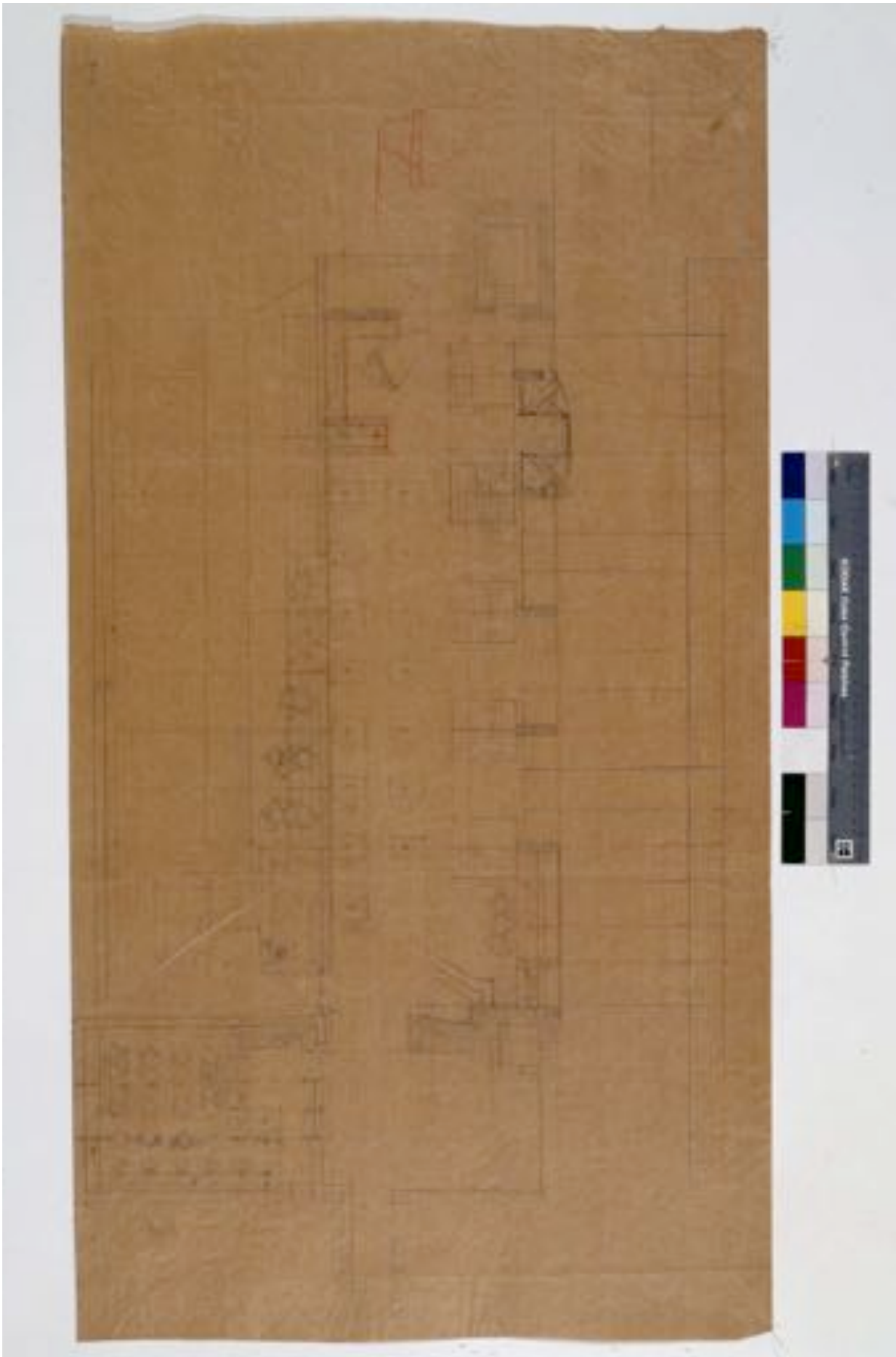


Figure B-22 - Drafting Room Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-23 - South Elevation [Core Buildings] (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-24 - Little Kitchen Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

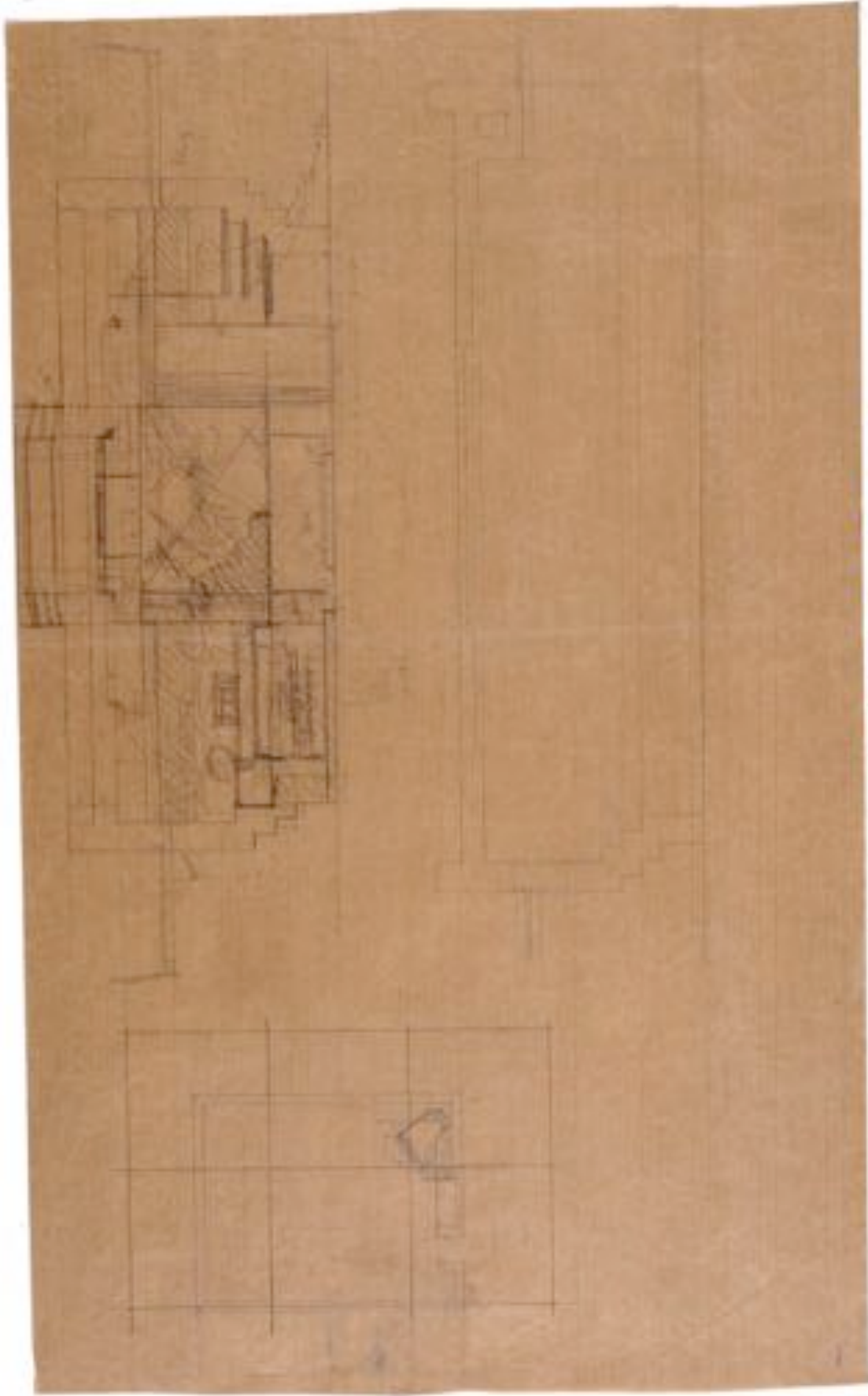


Figure B-25 - Theatre [Kiva] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-26 - Drafting Room West Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-27 - Office Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-28 - Office Fireplace/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

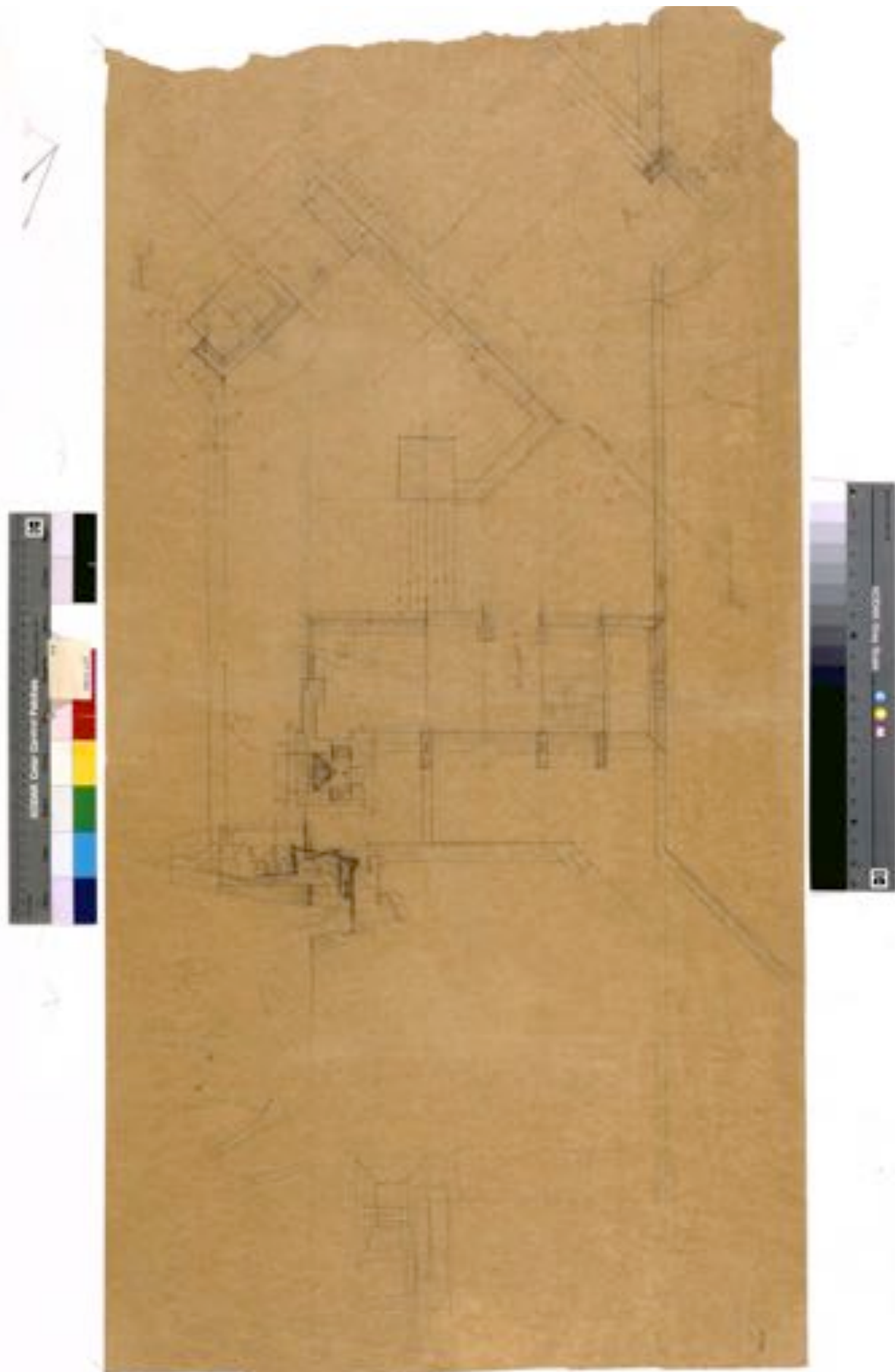


Figure B-29 - Office Toilet Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-30 - Music Room Section [Garden Room] (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

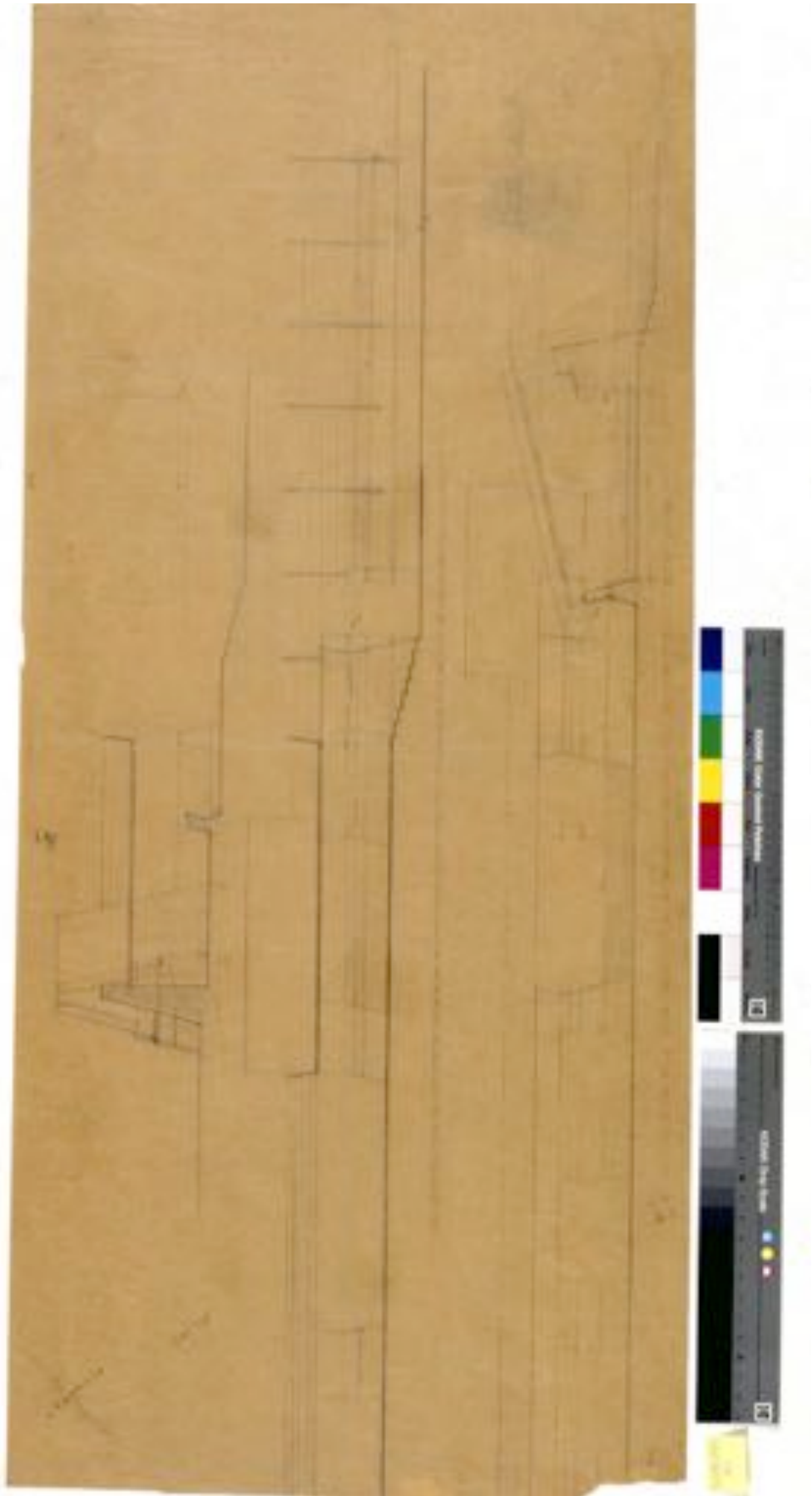


Figure B-31 - Garden Room "Alladin" (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

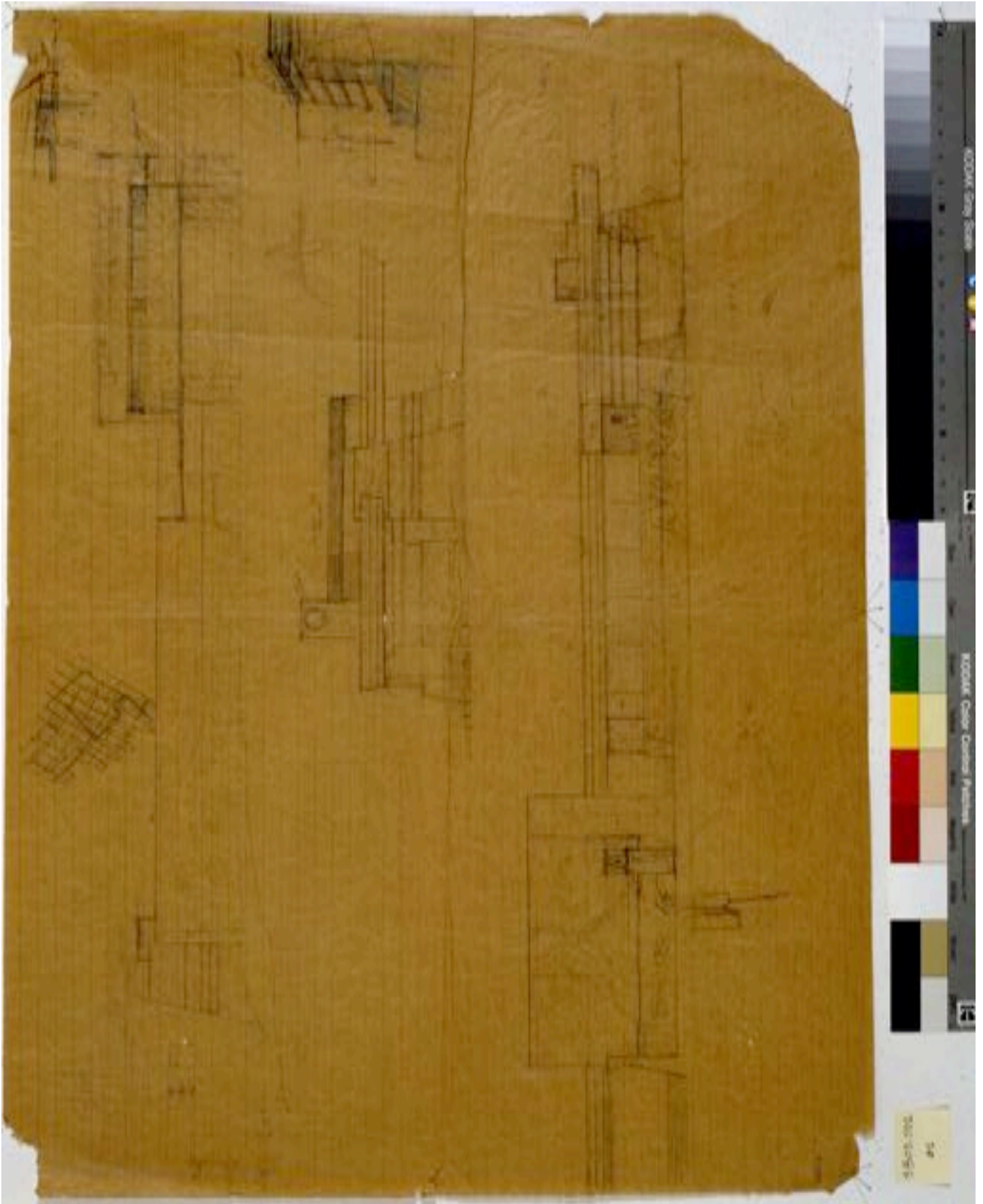


Figure B-32 - House [Wright Living Quarters] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

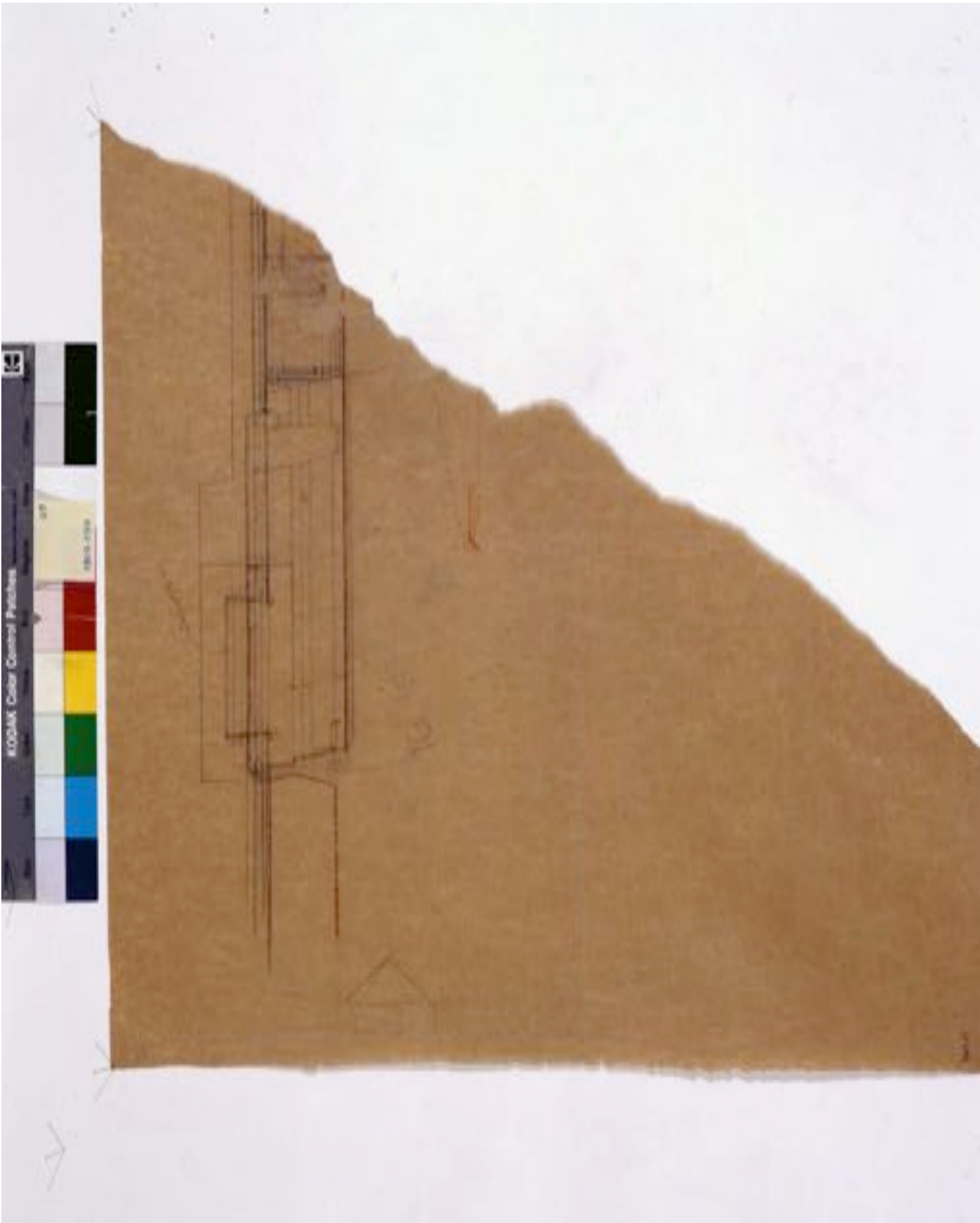


Figure B-33 - Cove Section/Fragment (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-34 - House [Wright Living Quarters] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

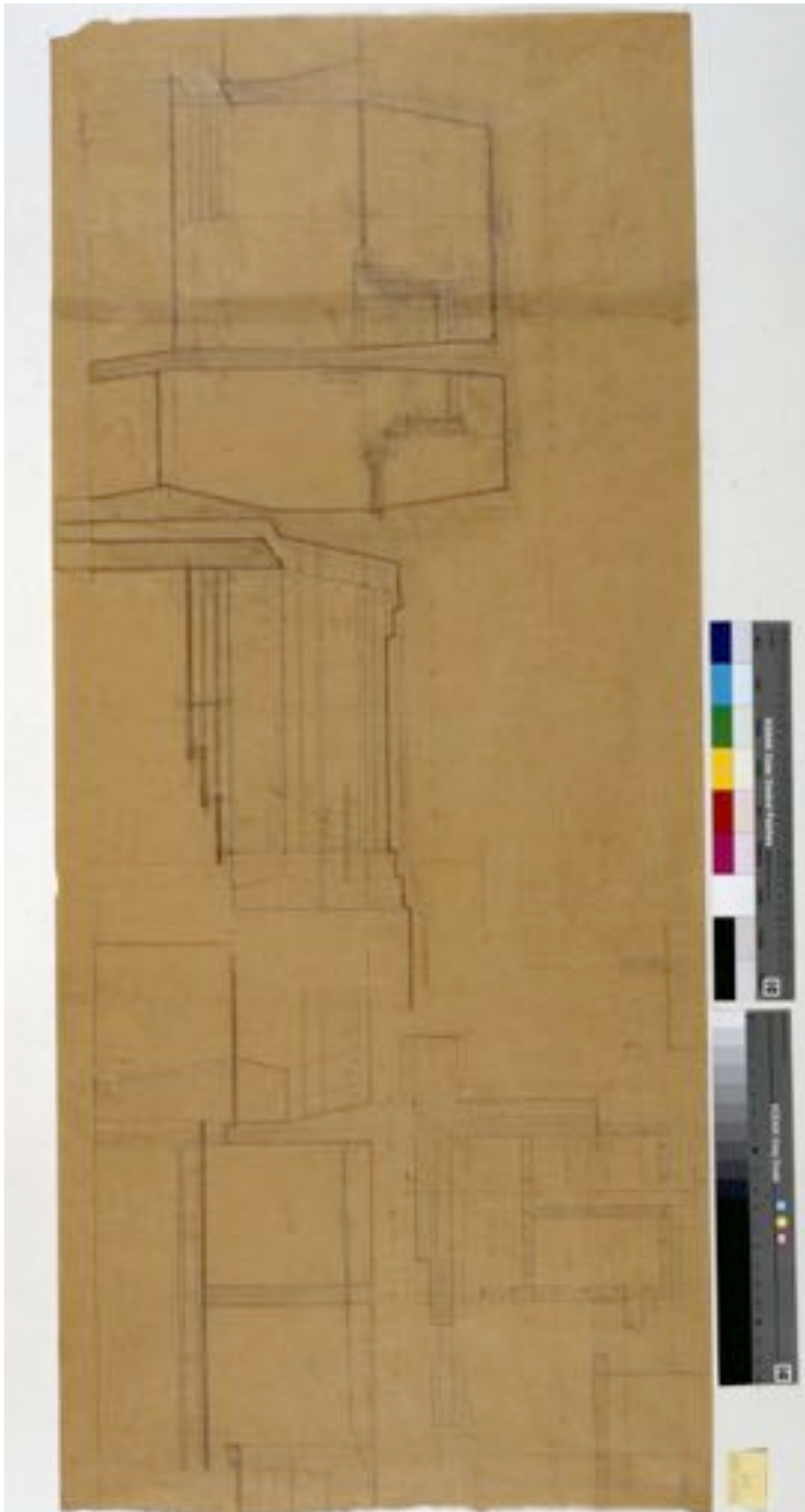


Figure B-35 - House [Wright Living Quarters] Bath Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

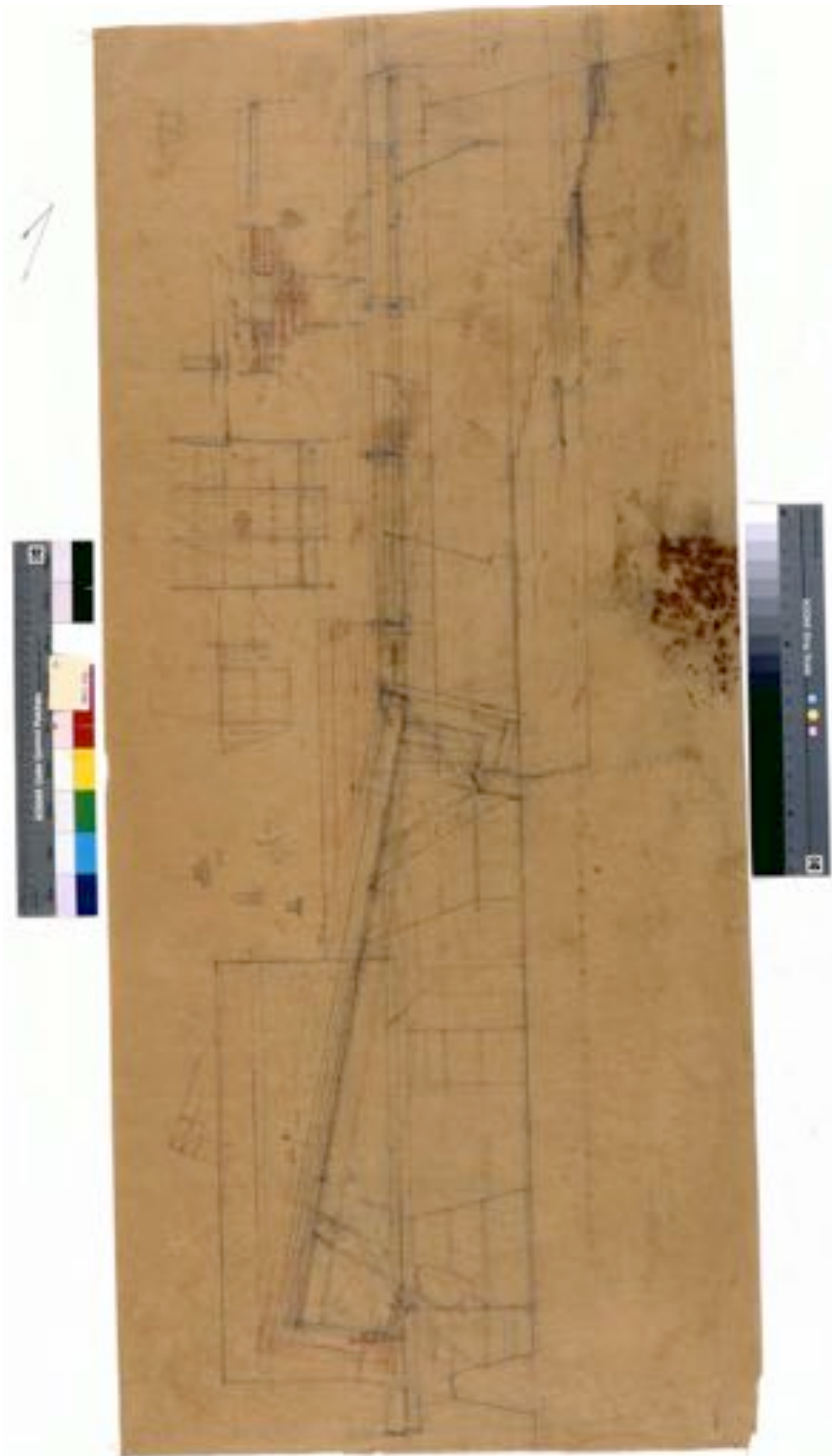


Figure B-36 - Drafting Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-37 - Drafting Room Pool Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

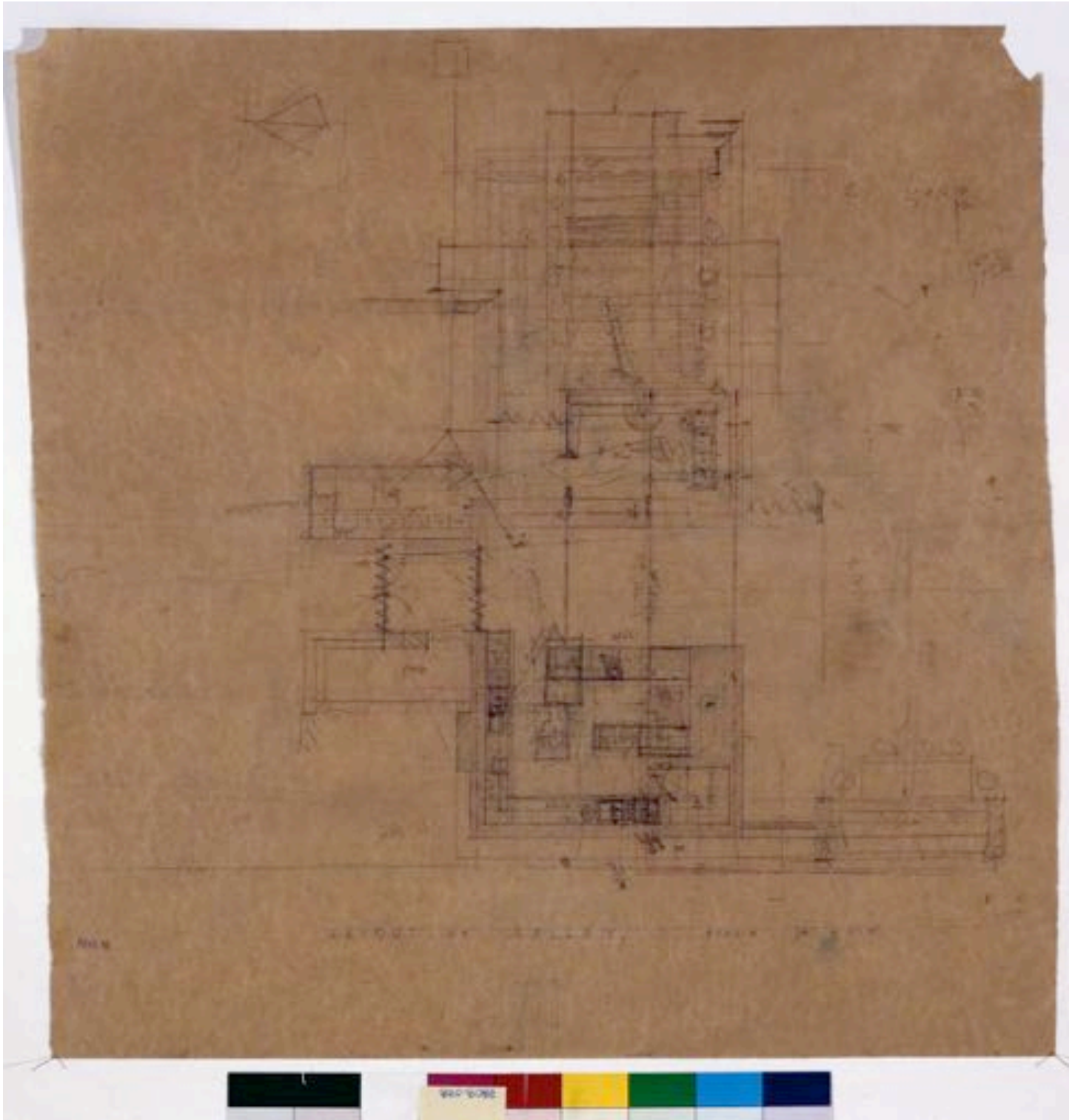


Figure B-38 - Kitchen [Galley] Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

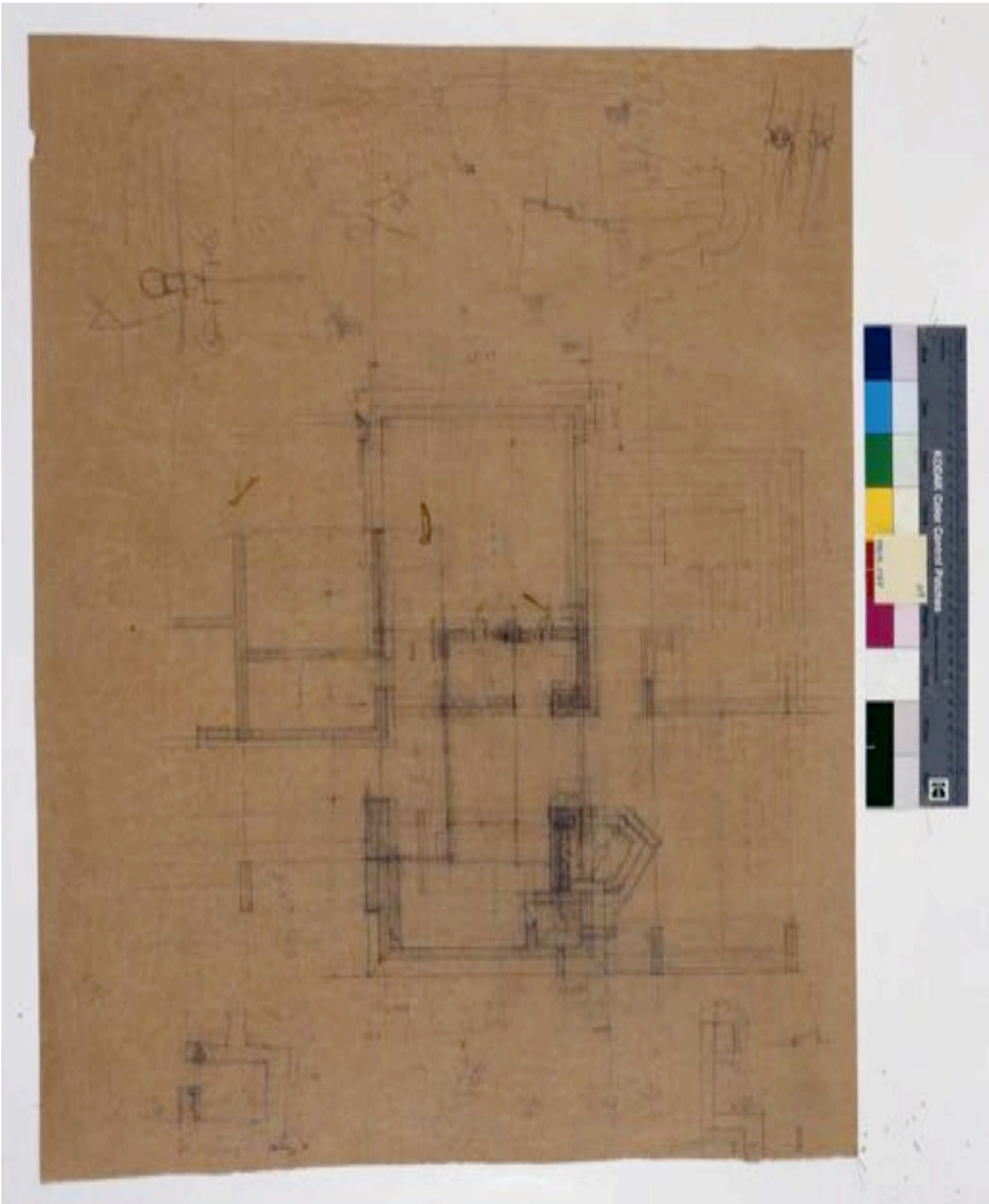


Figure B-39 - Drying Yard Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-40 - Kitchen Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

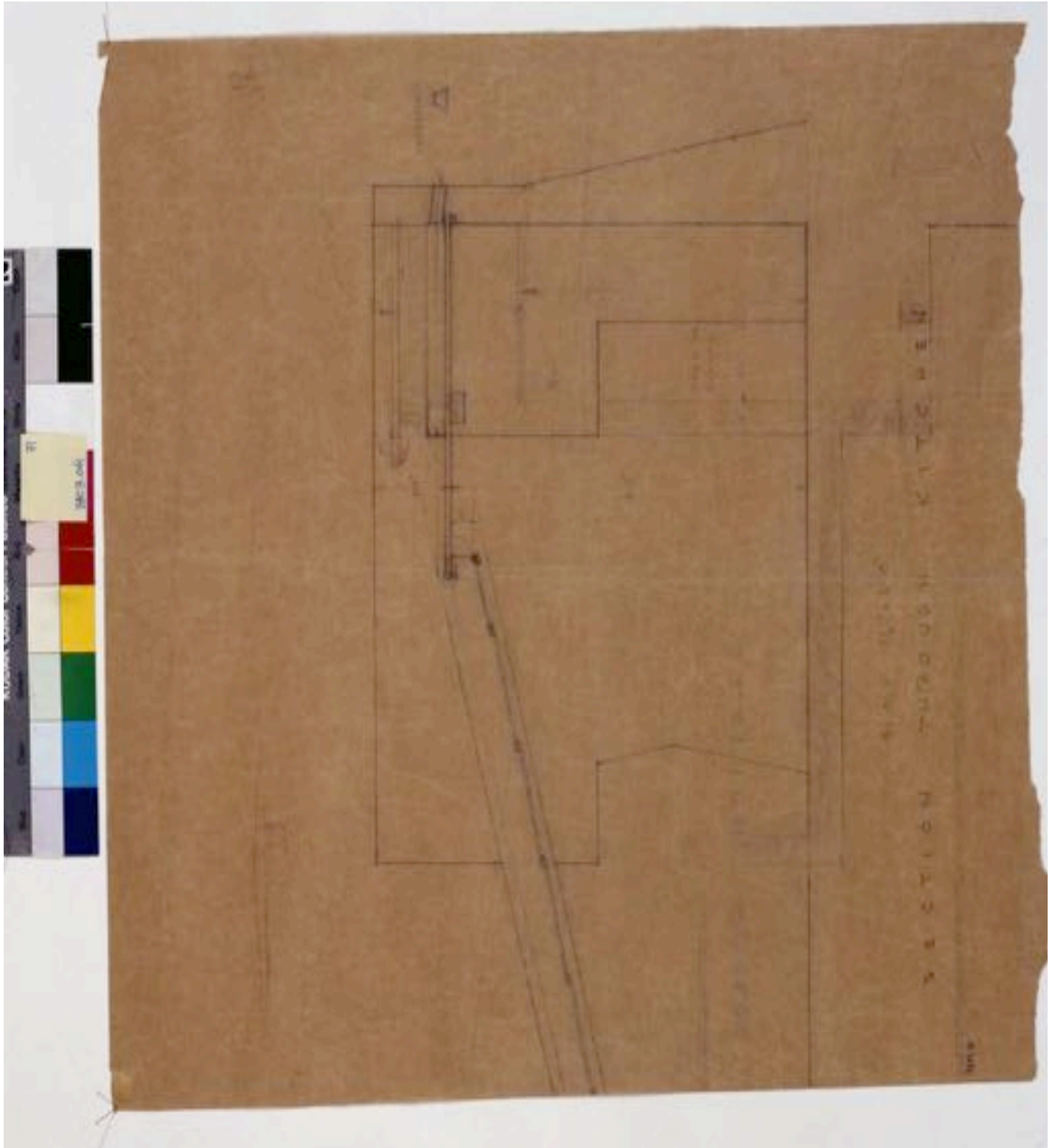


Figure B-41 - Section Through Kitchen, Cooler Door (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

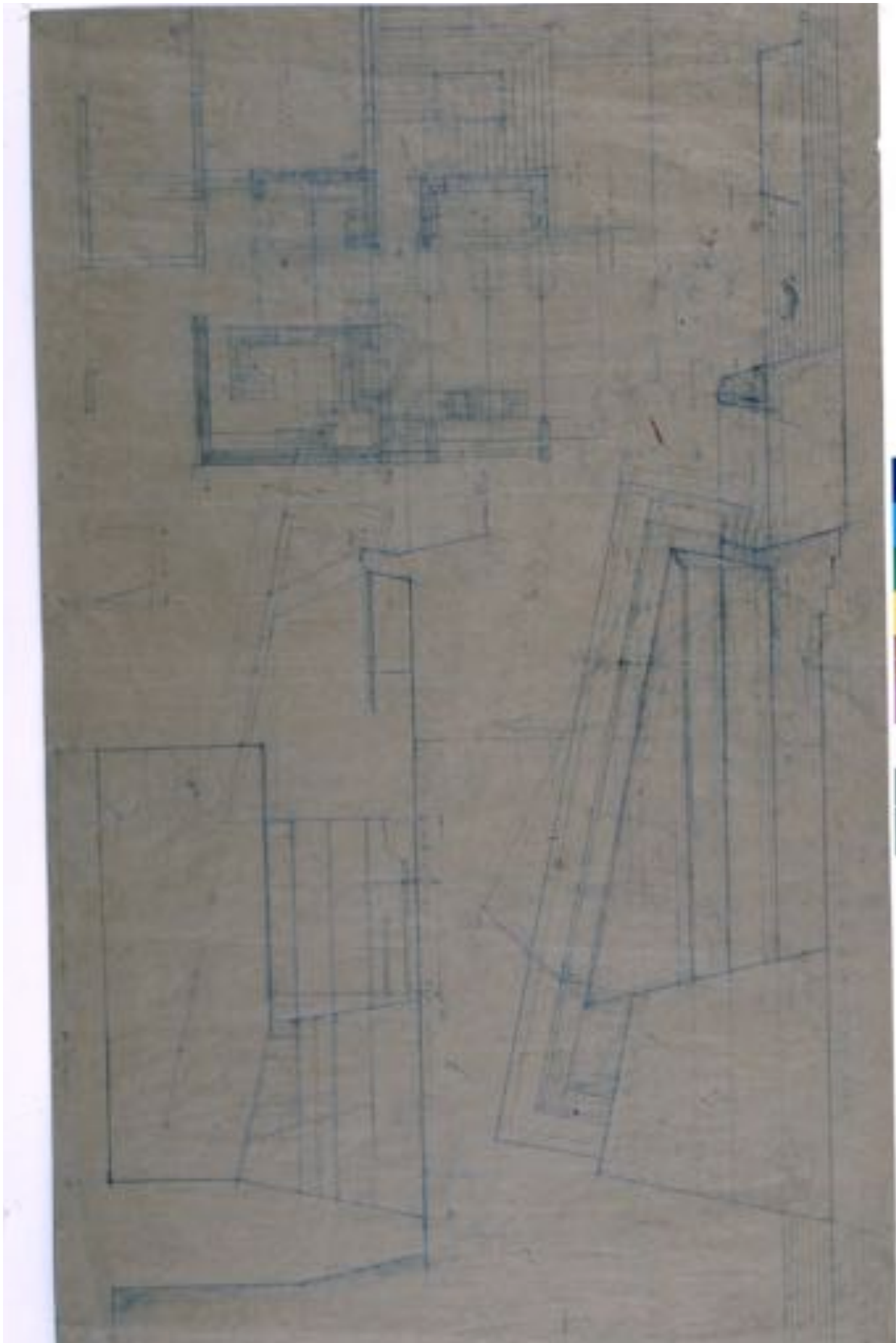


Figure B-42 - Drafting Room/Kitchen Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

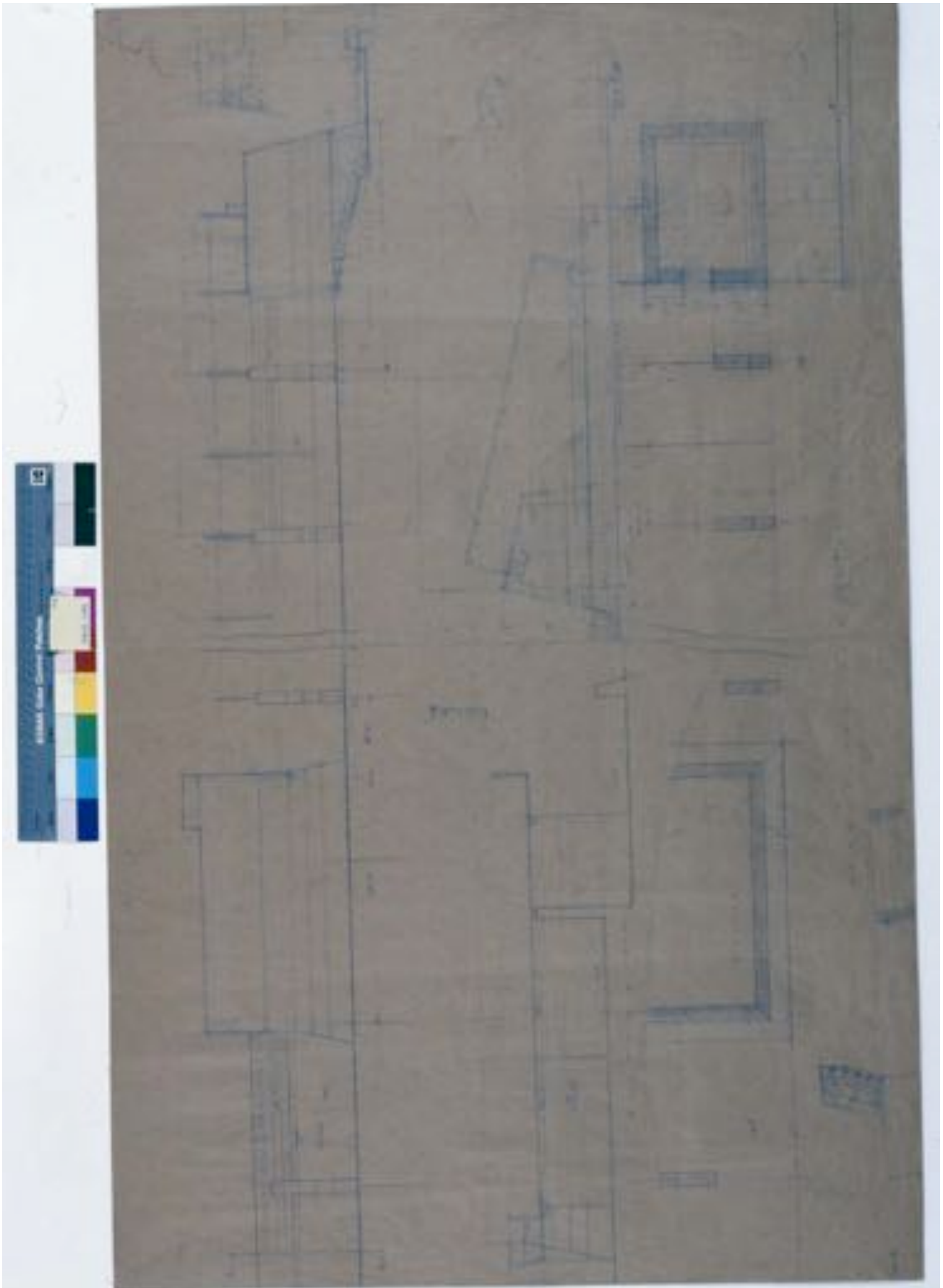


Figure B-43 - Drafting Room Section/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

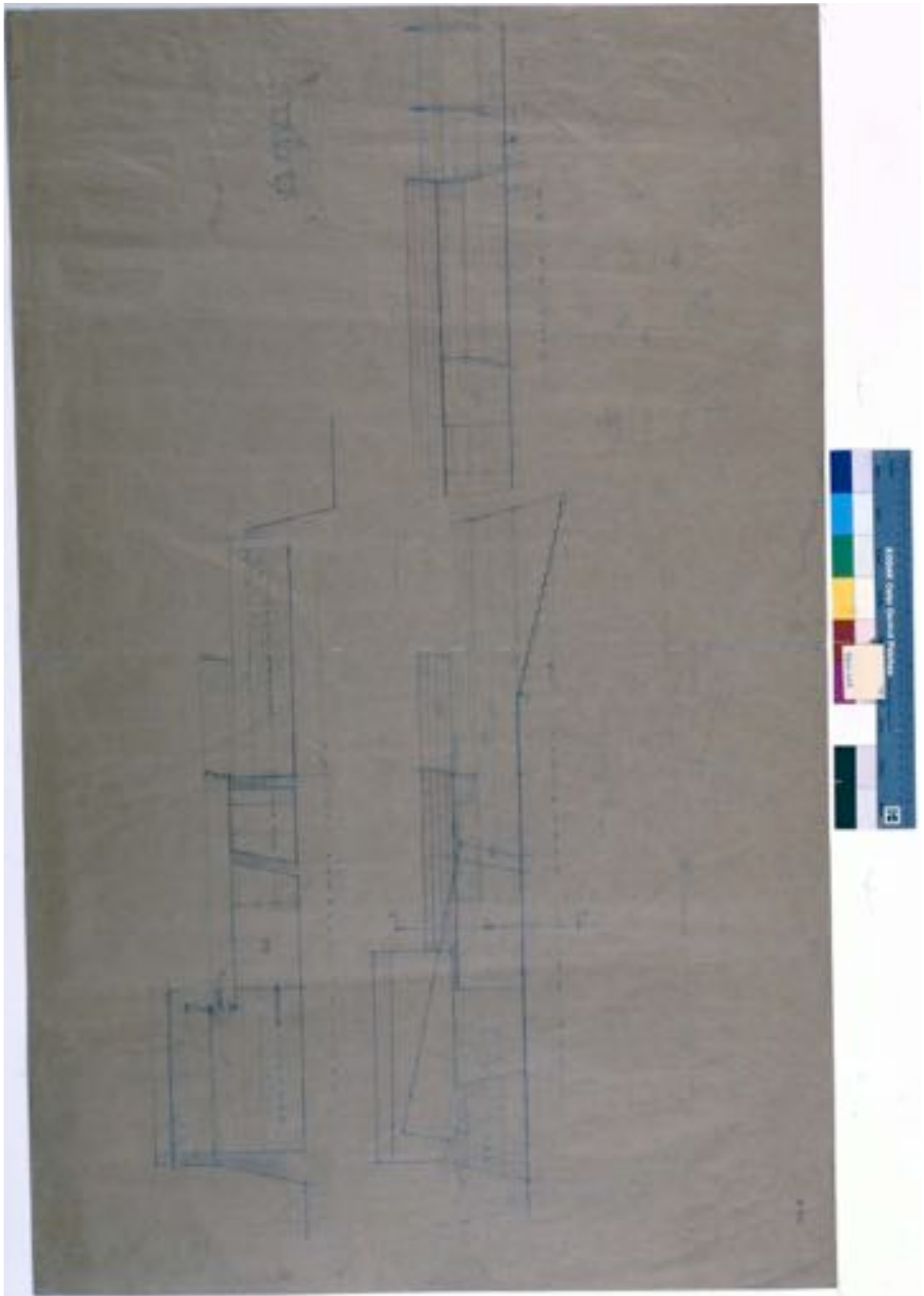


Figure B-44 - Drafting Room Section/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

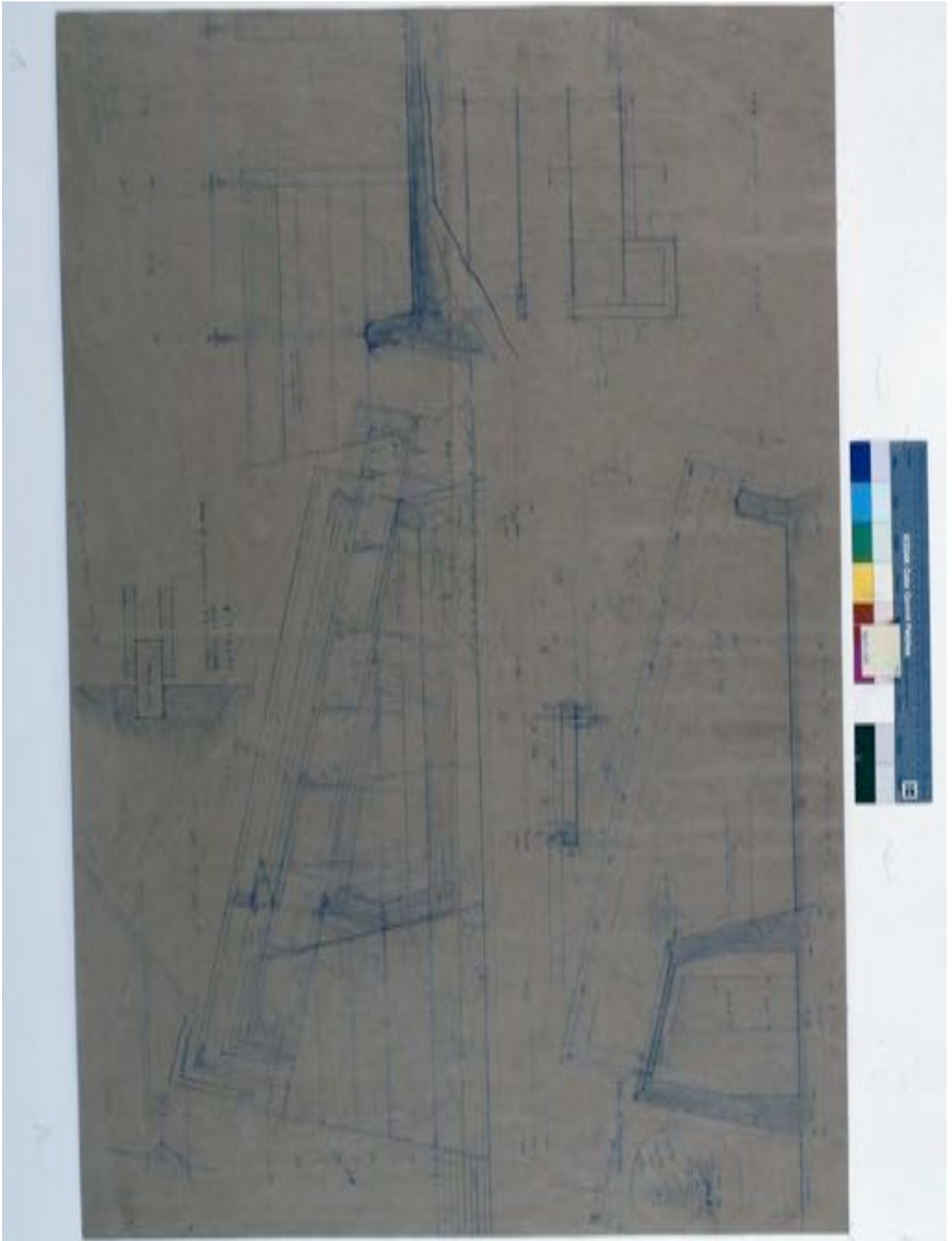


Figure B-45 - Drafting Room Section/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-46 - Drafting Room Section/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

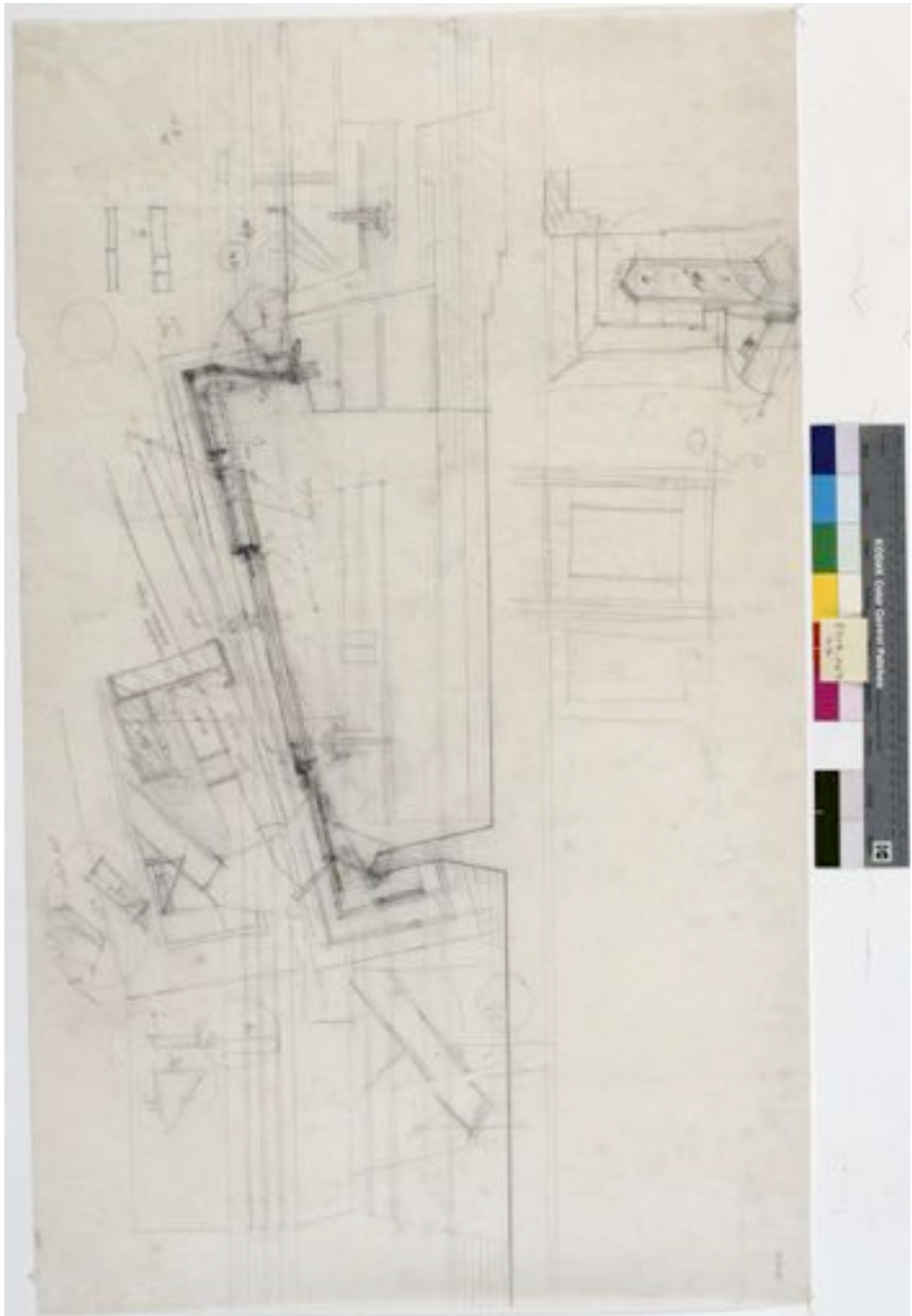


Figure B-47 - Garden Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

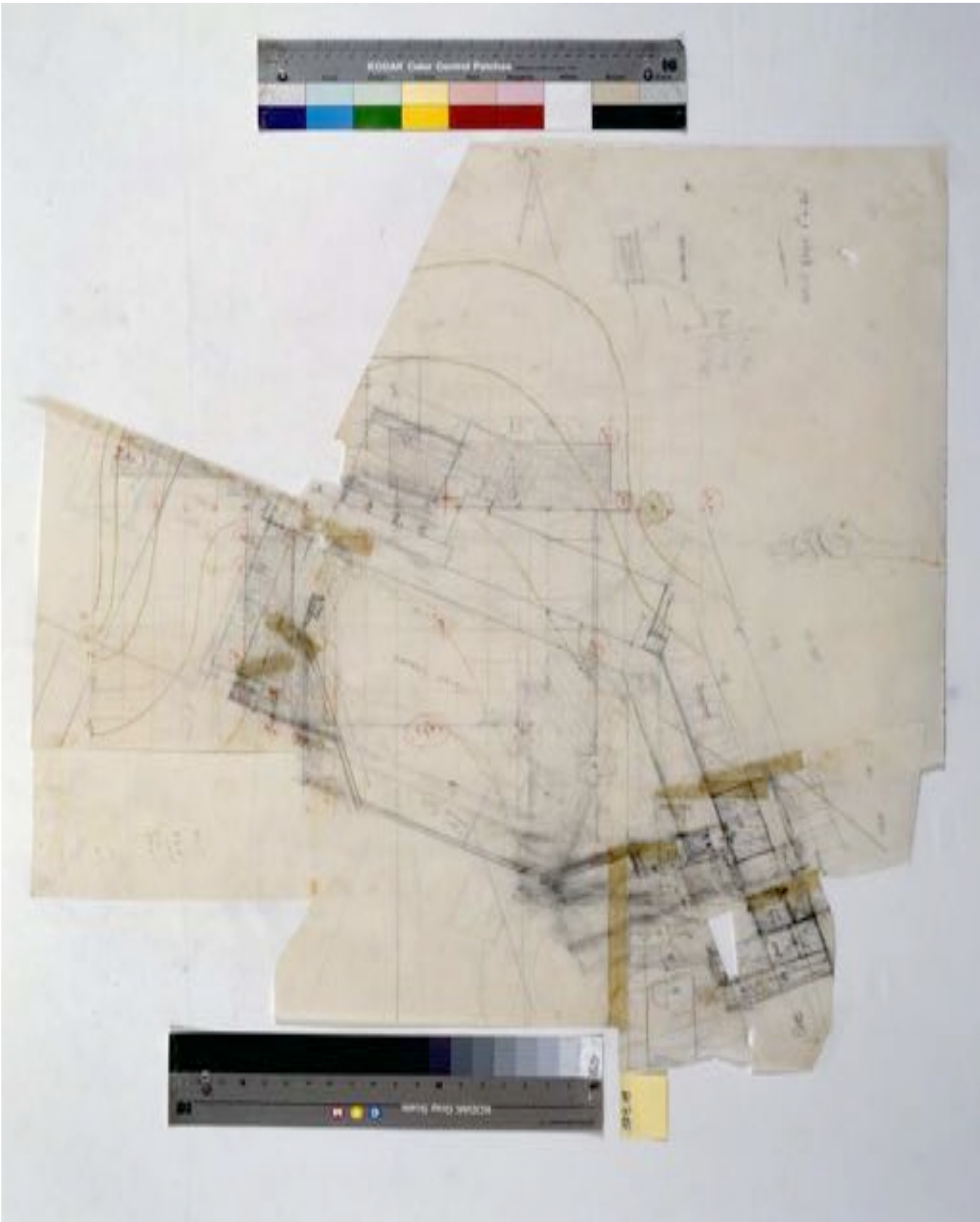


Figure B-48 - Shop Entry Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

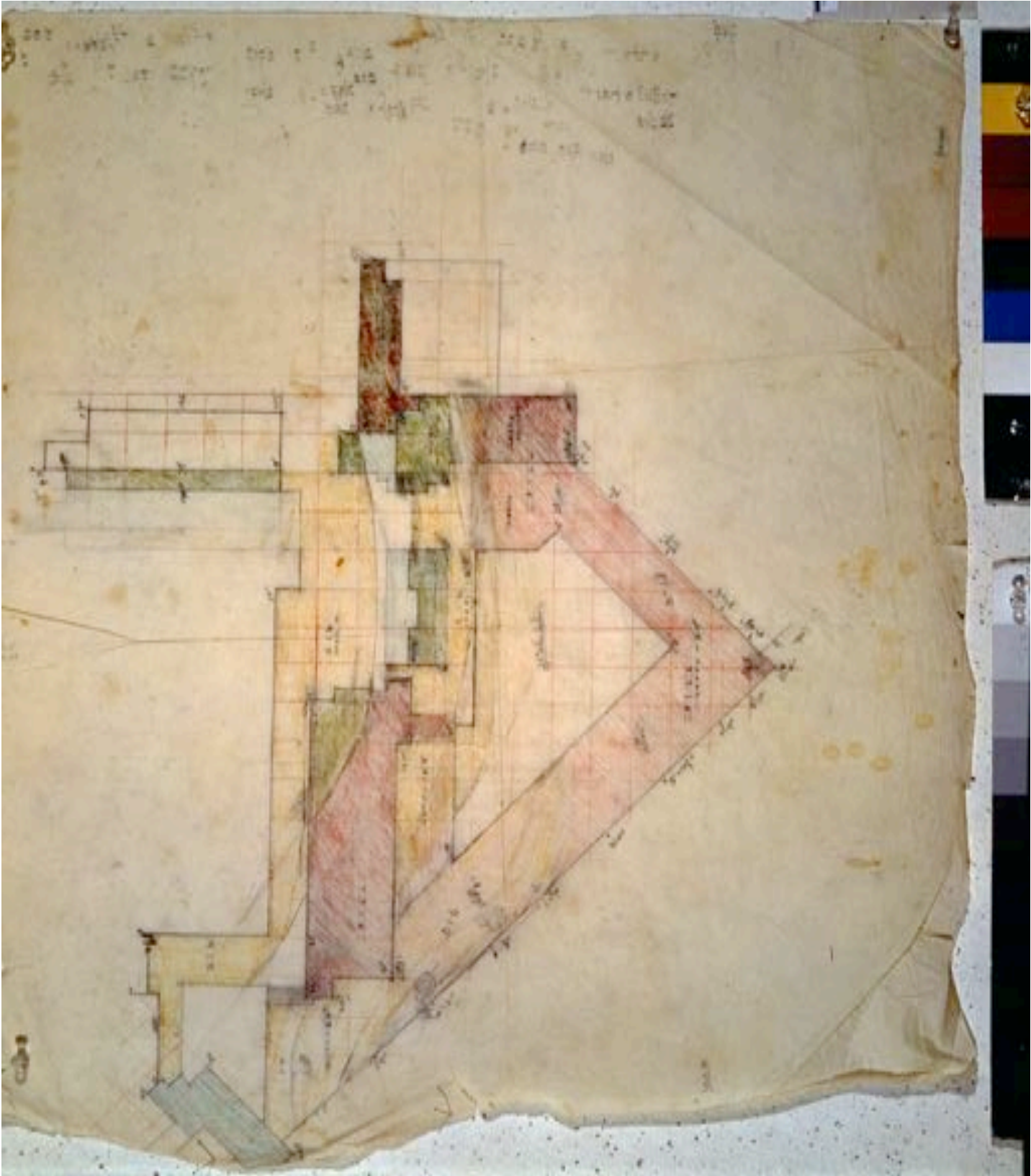


Figure B-49 - Excavation/Fill Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

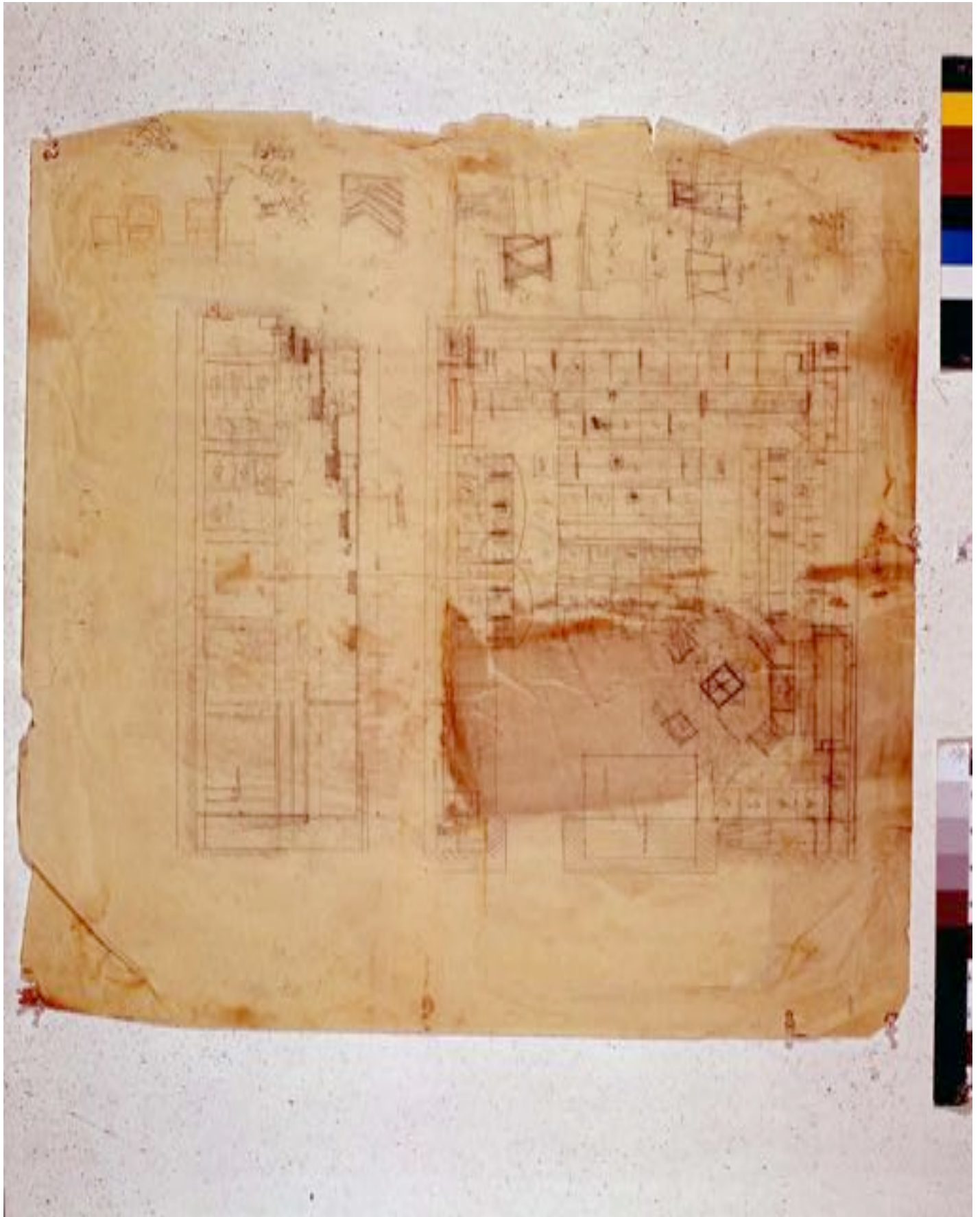


Figure B-50 - Theatre [Kiva] Plan/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

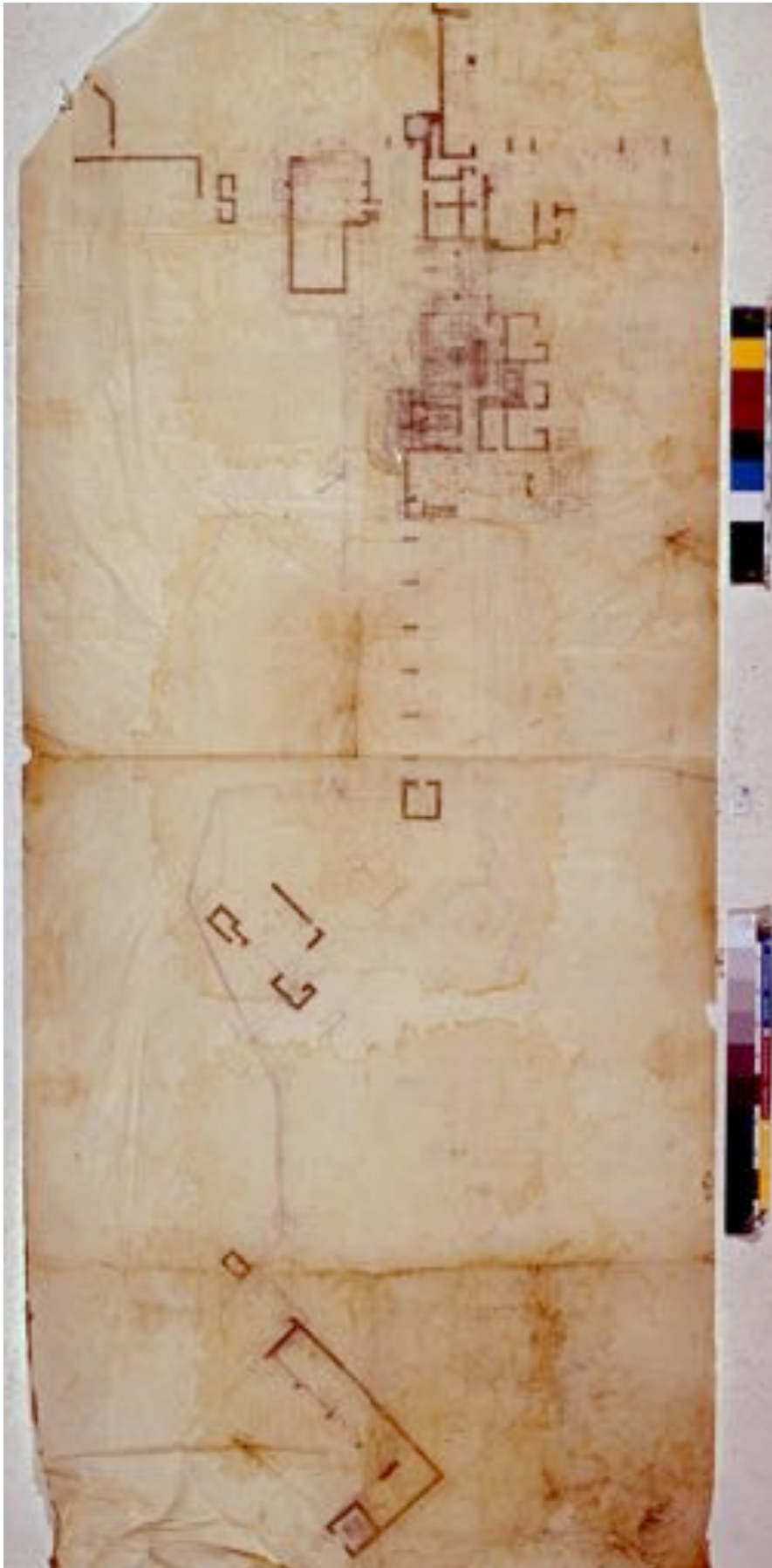


Figure B-51 - New Dining Room Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

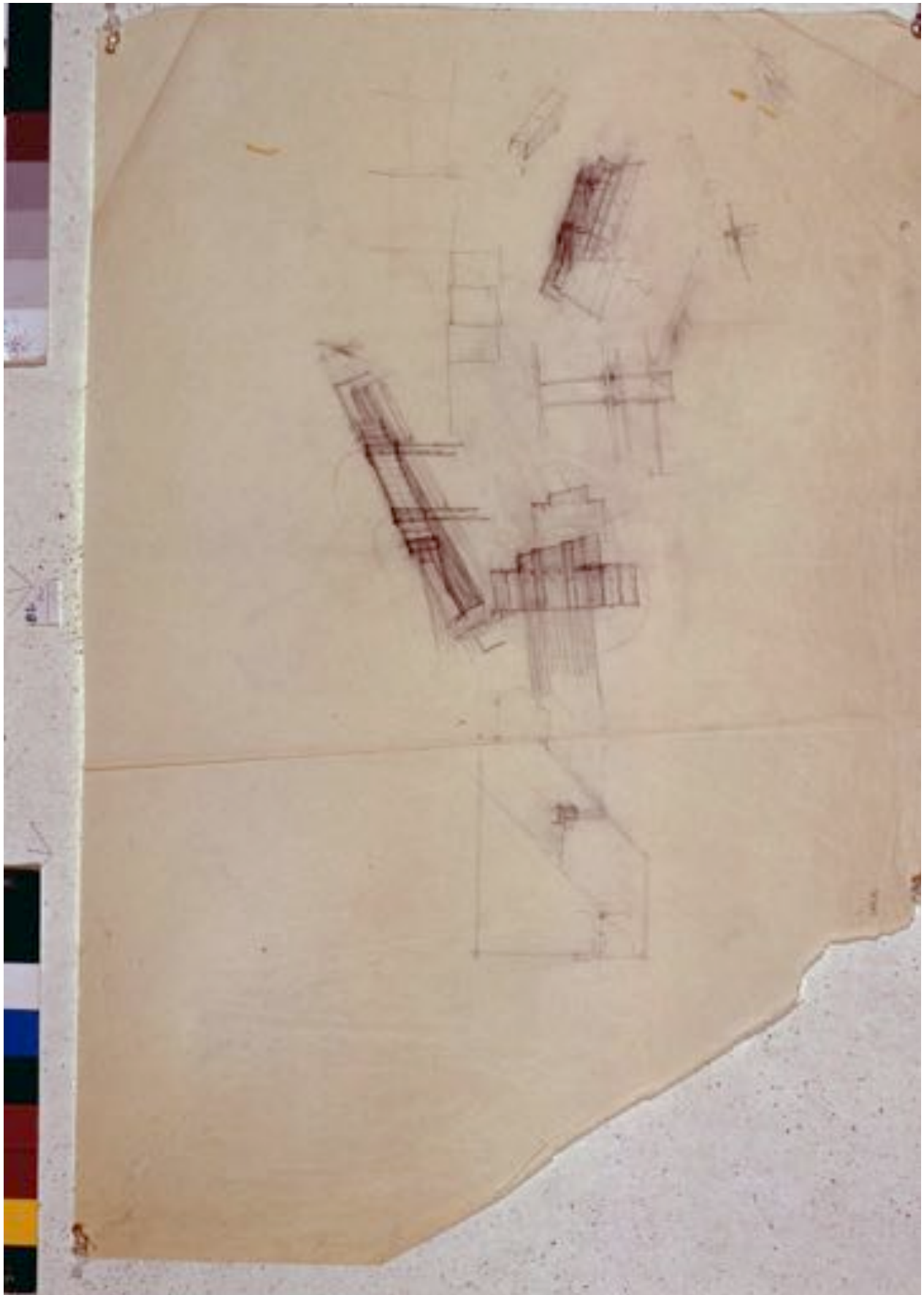


Figure B-52 - Ornamental Beam, Drafting Studio (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-53 - Office Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

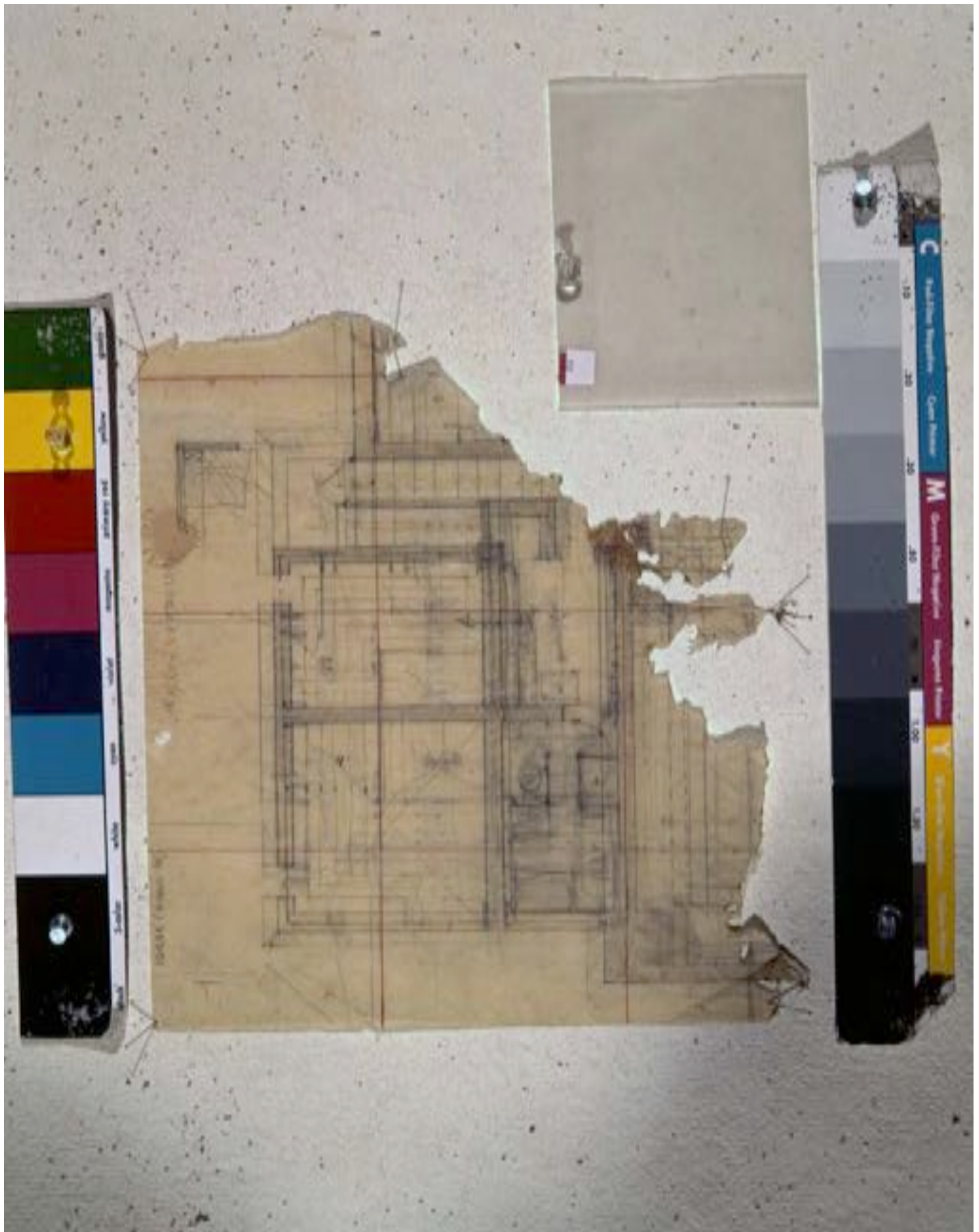


Figure B-54 - House [Wright Living Quarters] Bath/Kitchen Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

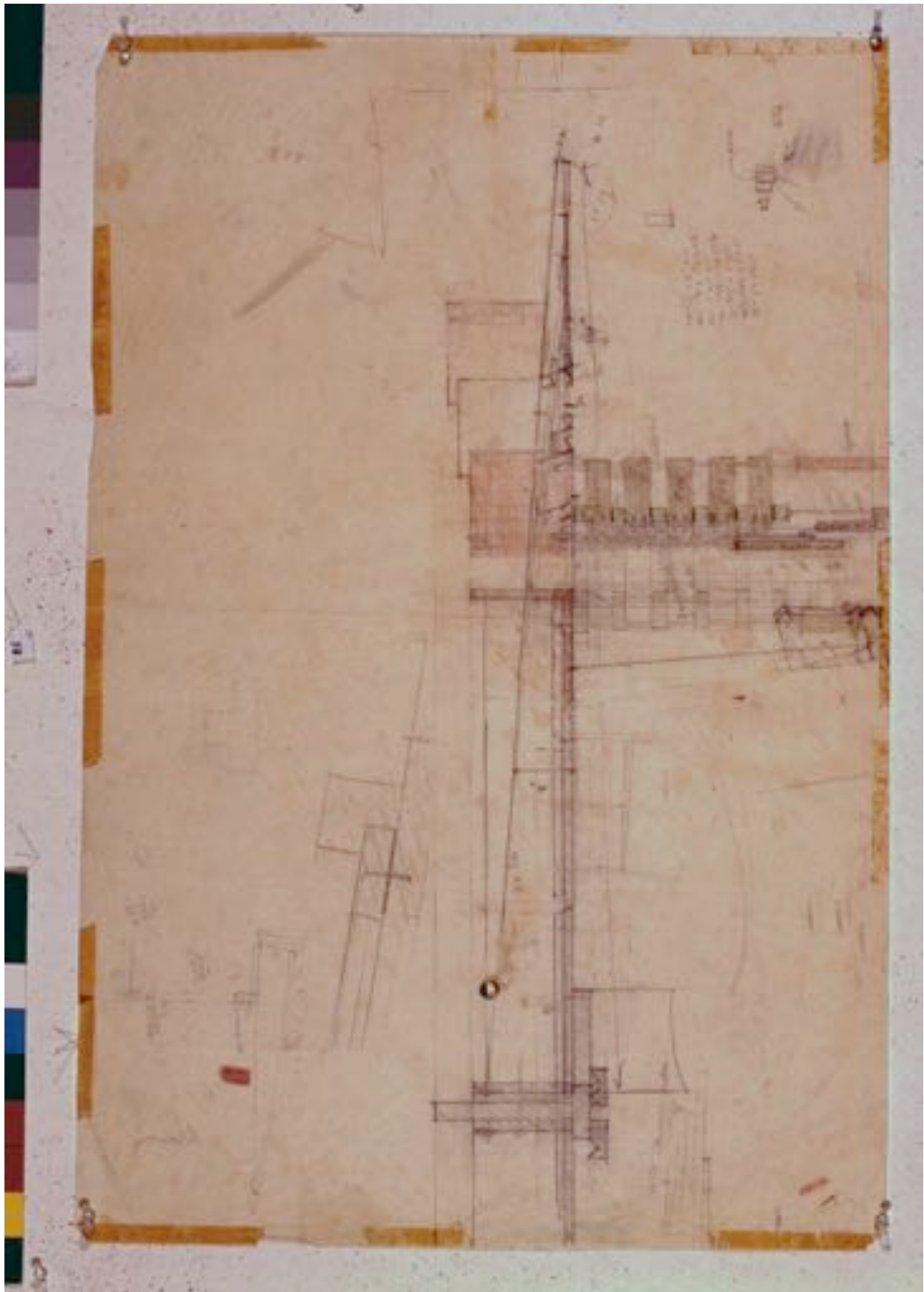


Figure B-55 - Hanging Pendant Design (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

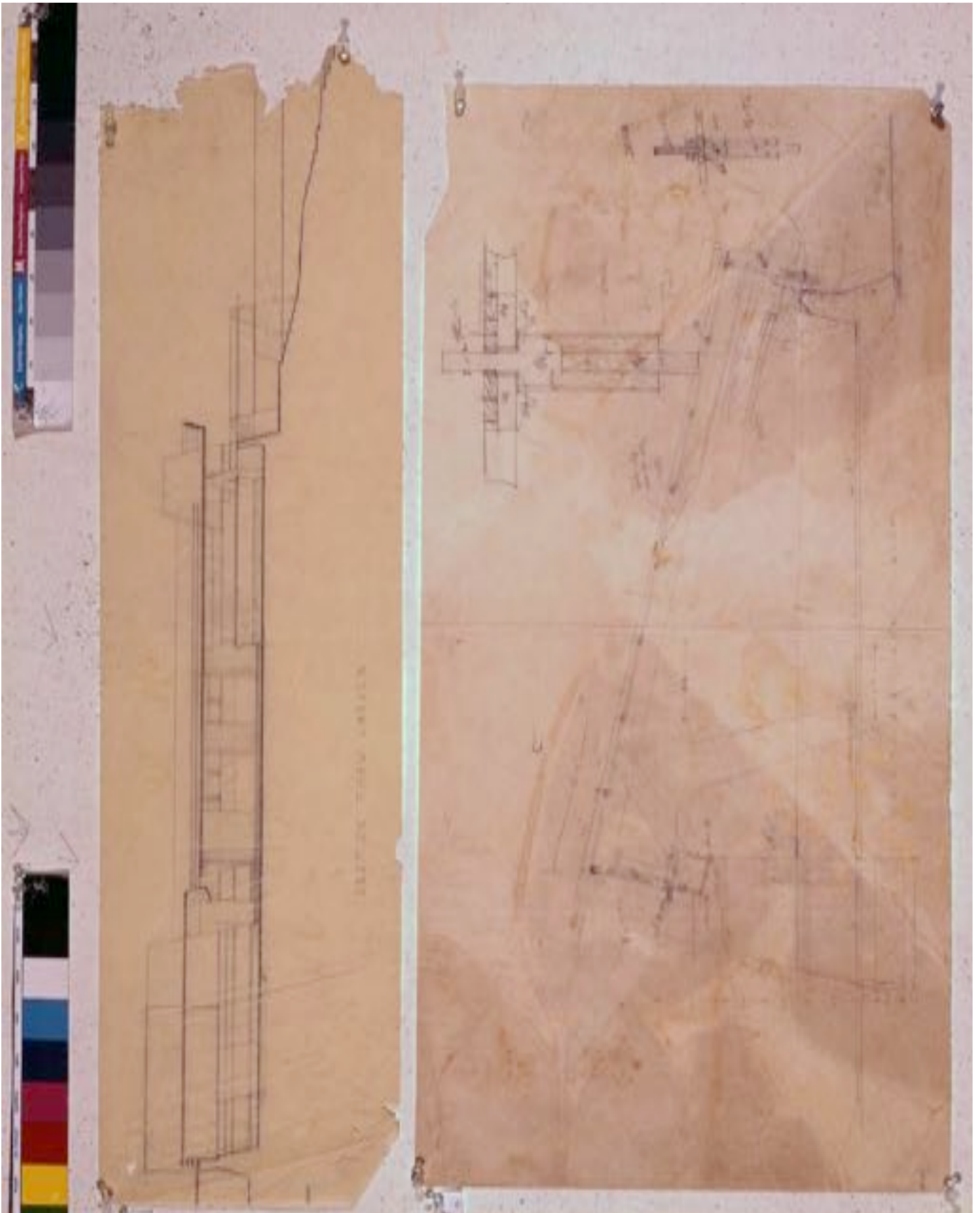


Figure B-56 - Garden Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

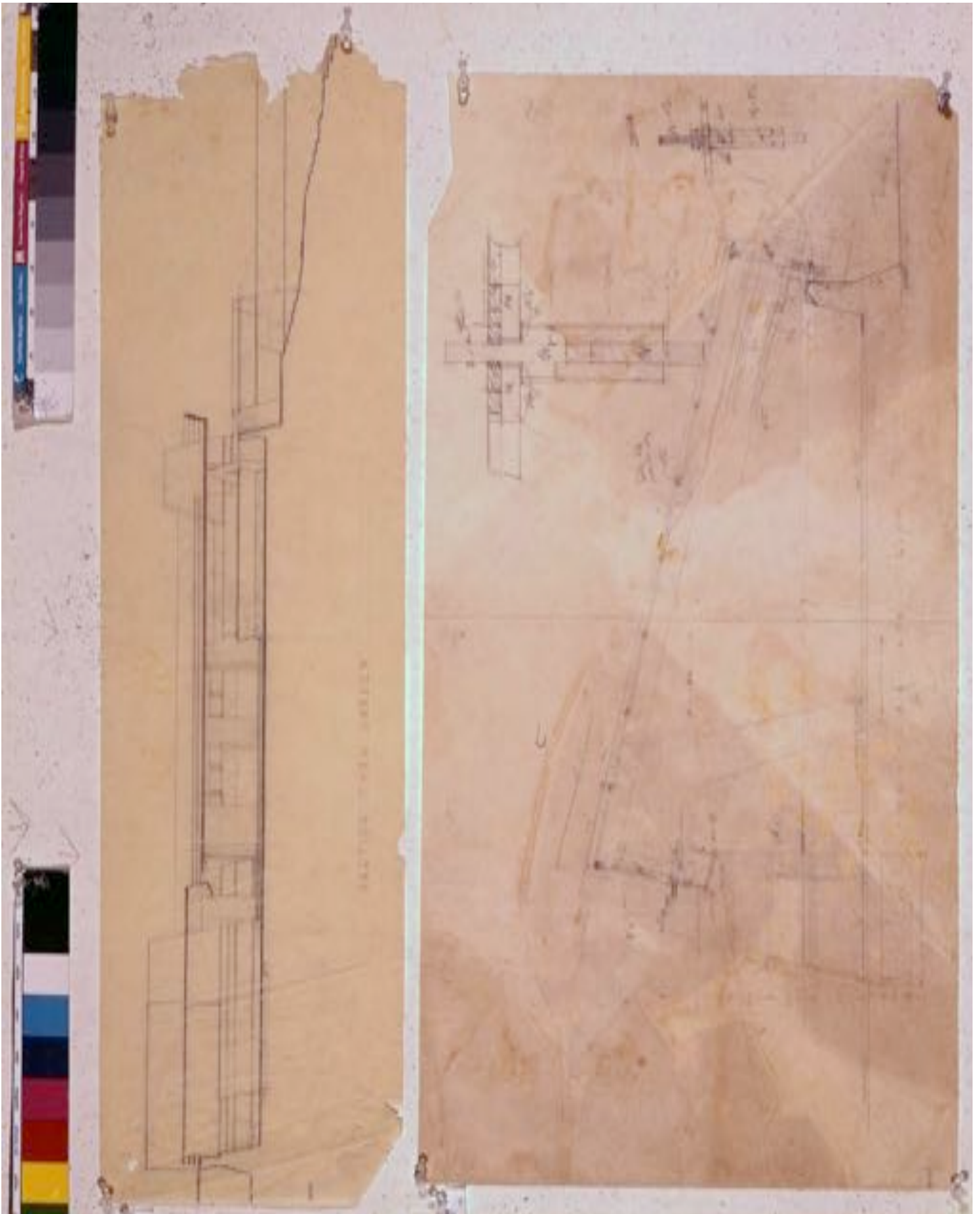


Figure B-57 - Drafting Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

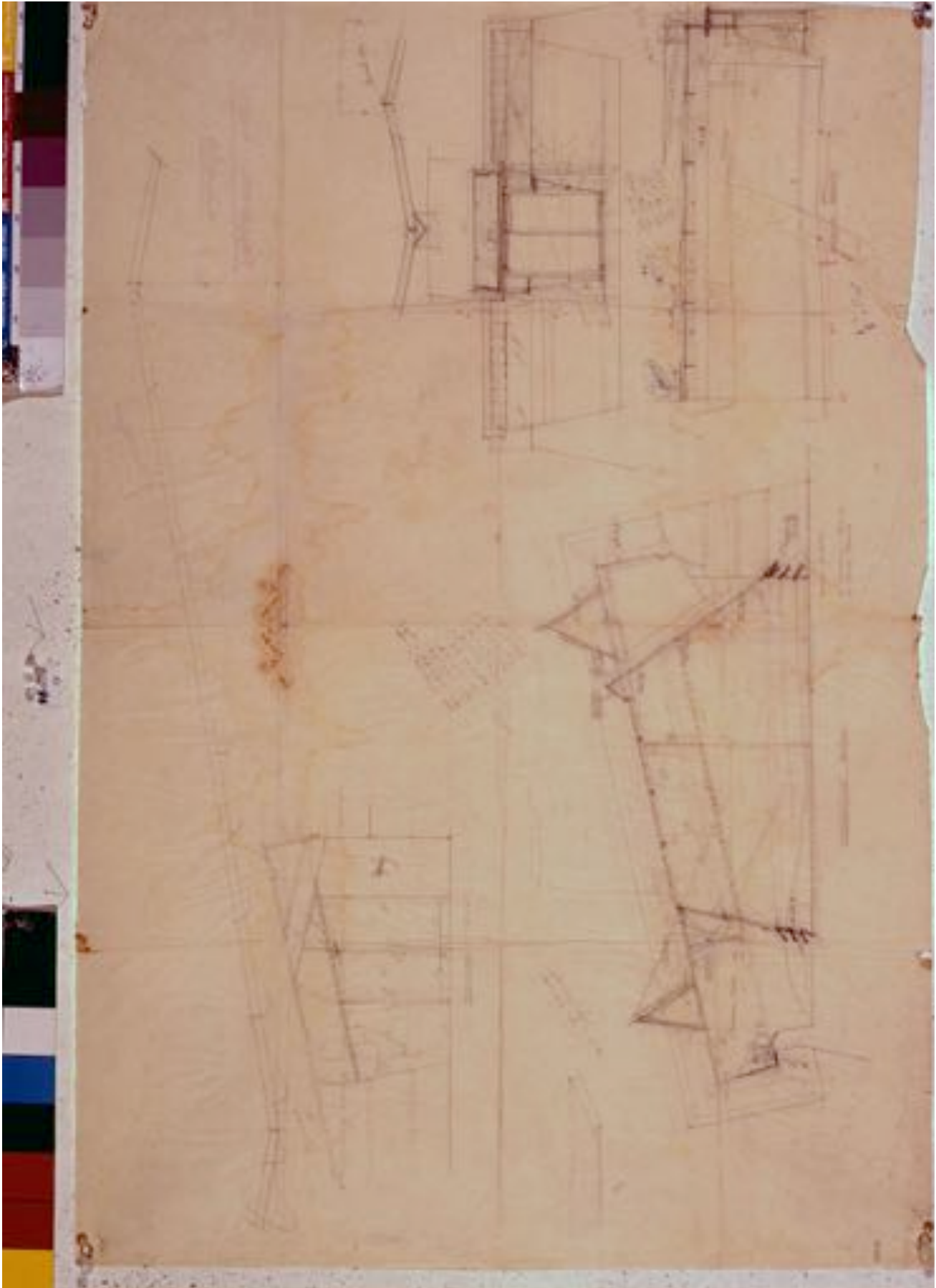


Figure B-58 - Drafting Room/ [Original] Dining Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

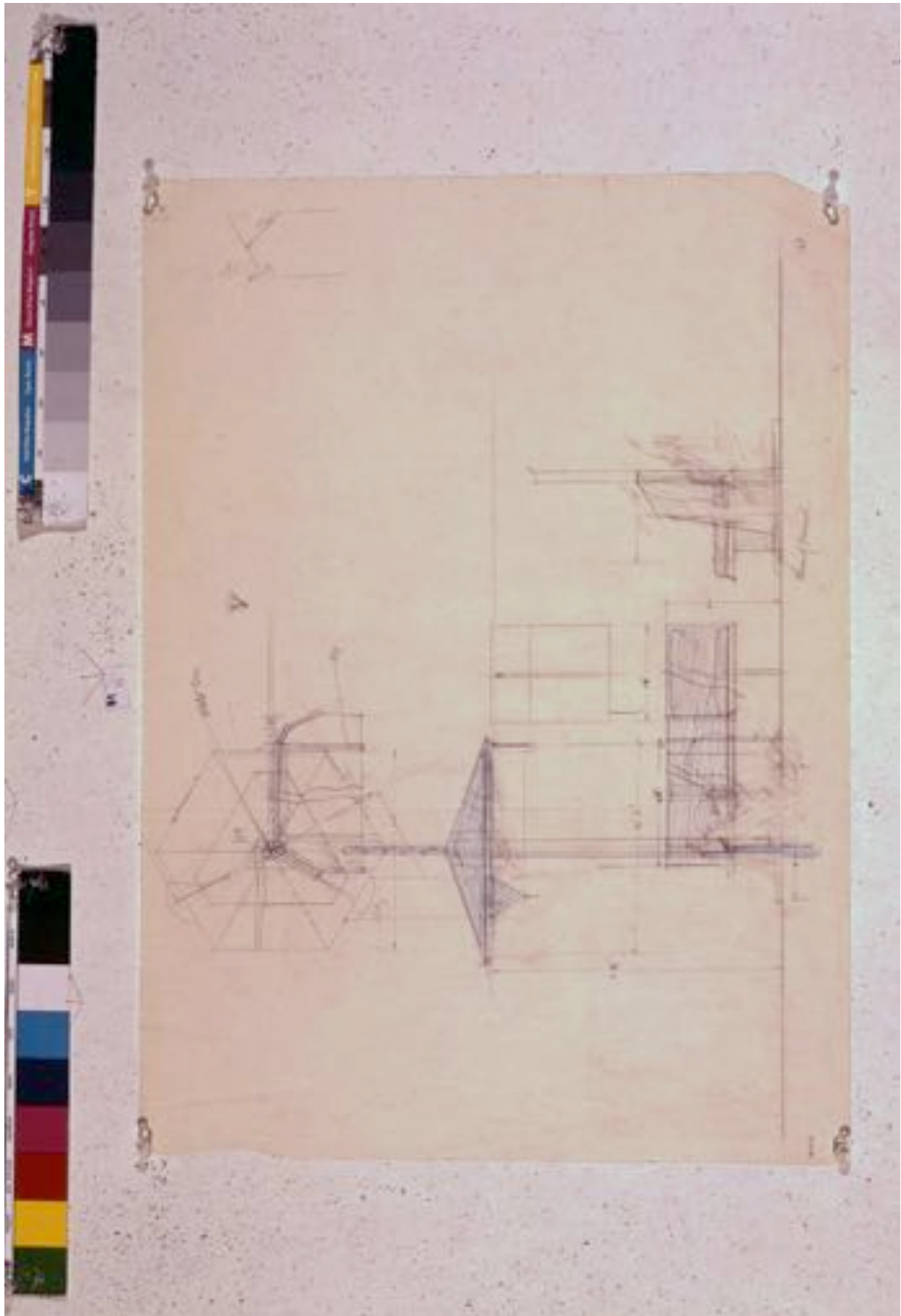


Figure B-59 - Parasol and Chair (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

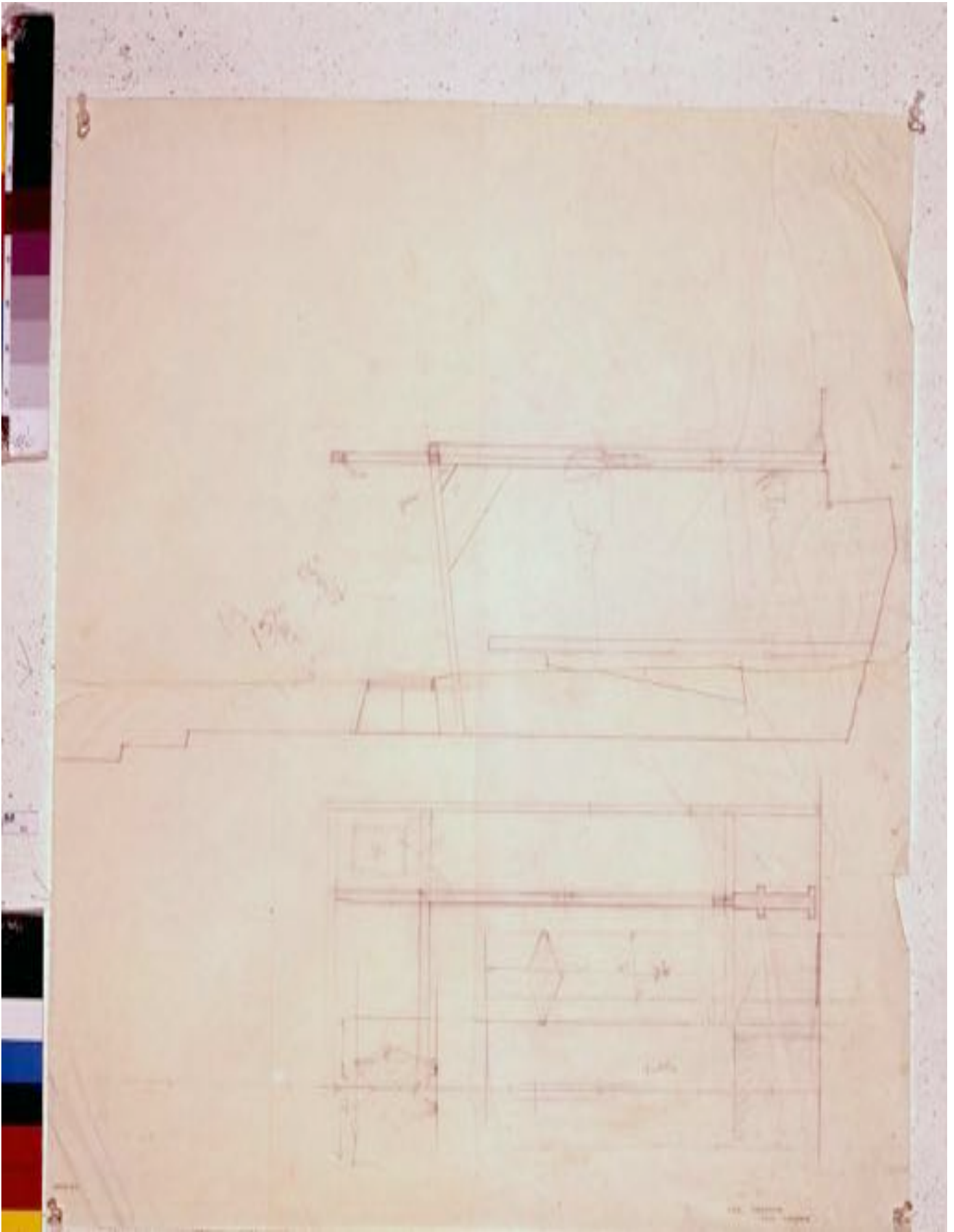


Figure B-60 - Drafting Room Sun Shades (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

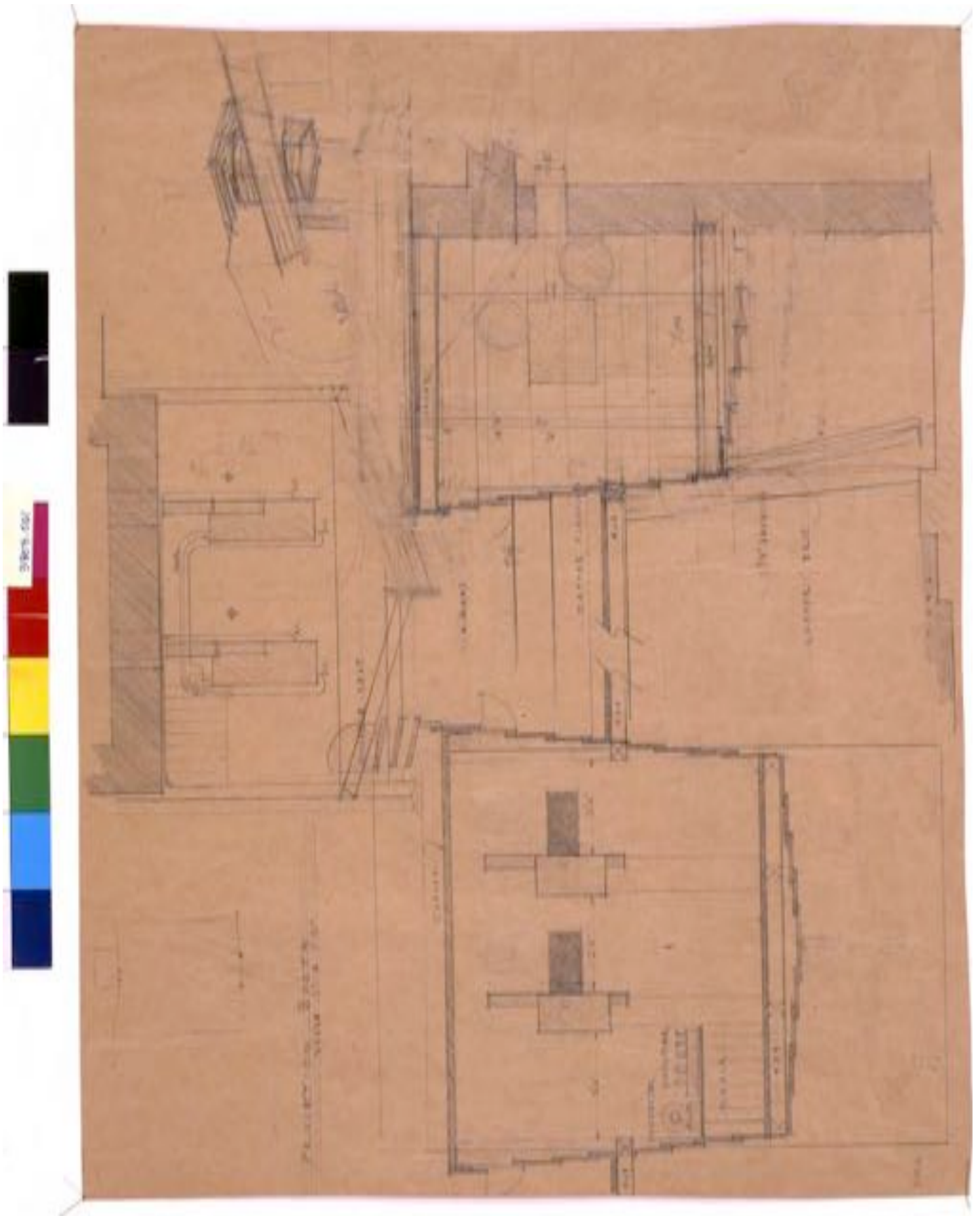


Figure B-61 - Projection Booth Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

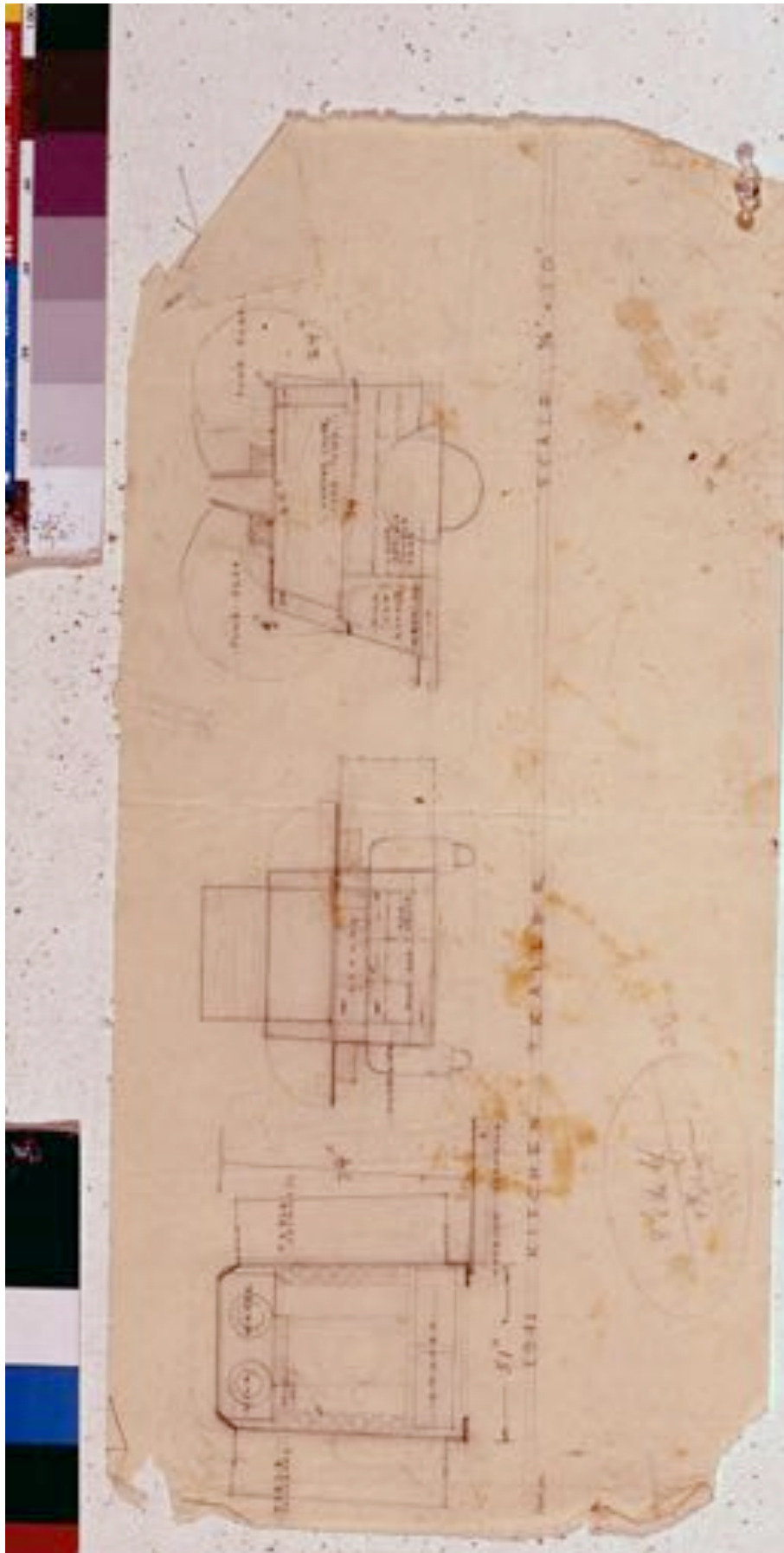


Figure B-62 - Kitchen Trailer (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

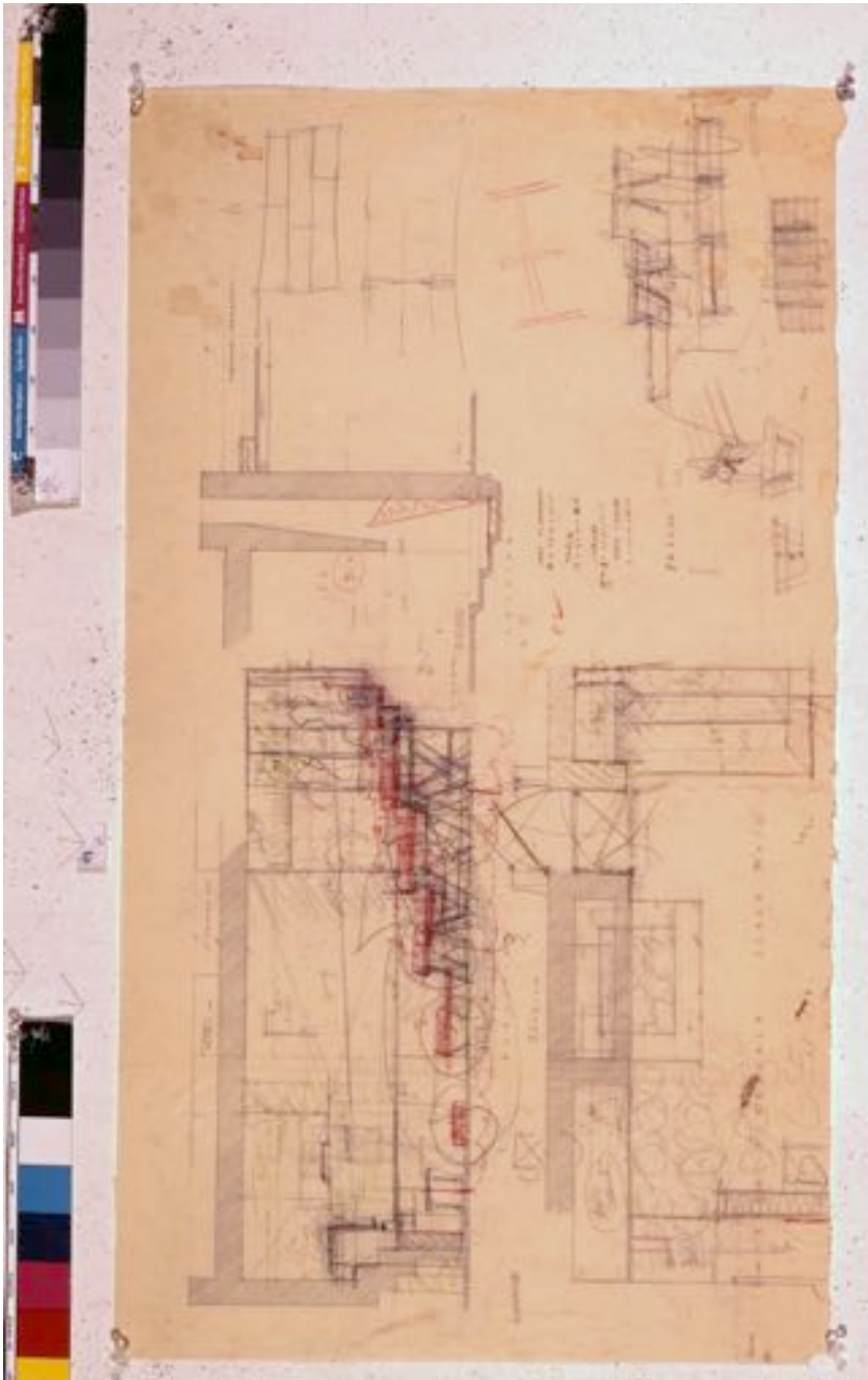


Figure B-63 - Theatre [Kiva] Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

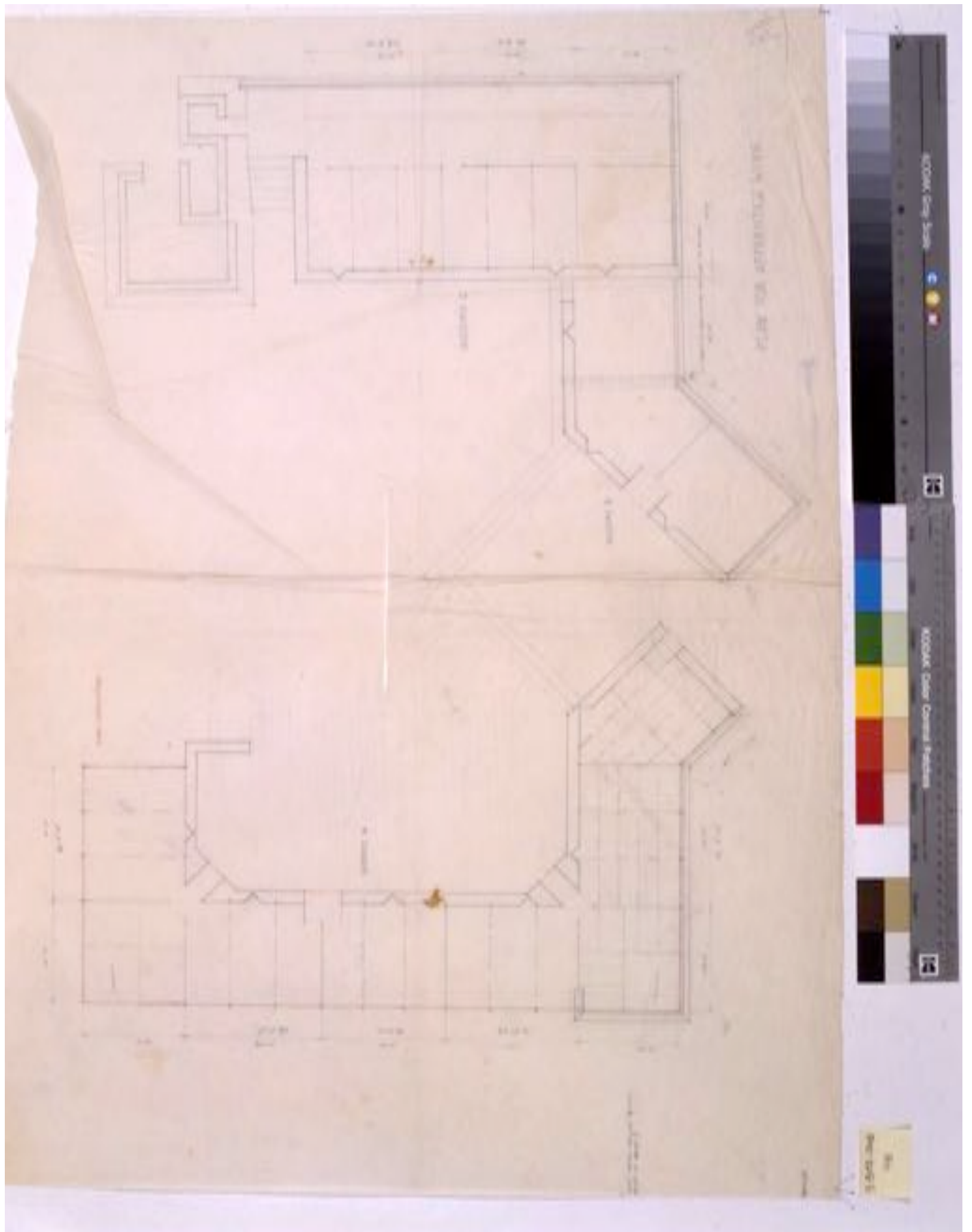


Figure B-65 - Apprentice Court Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

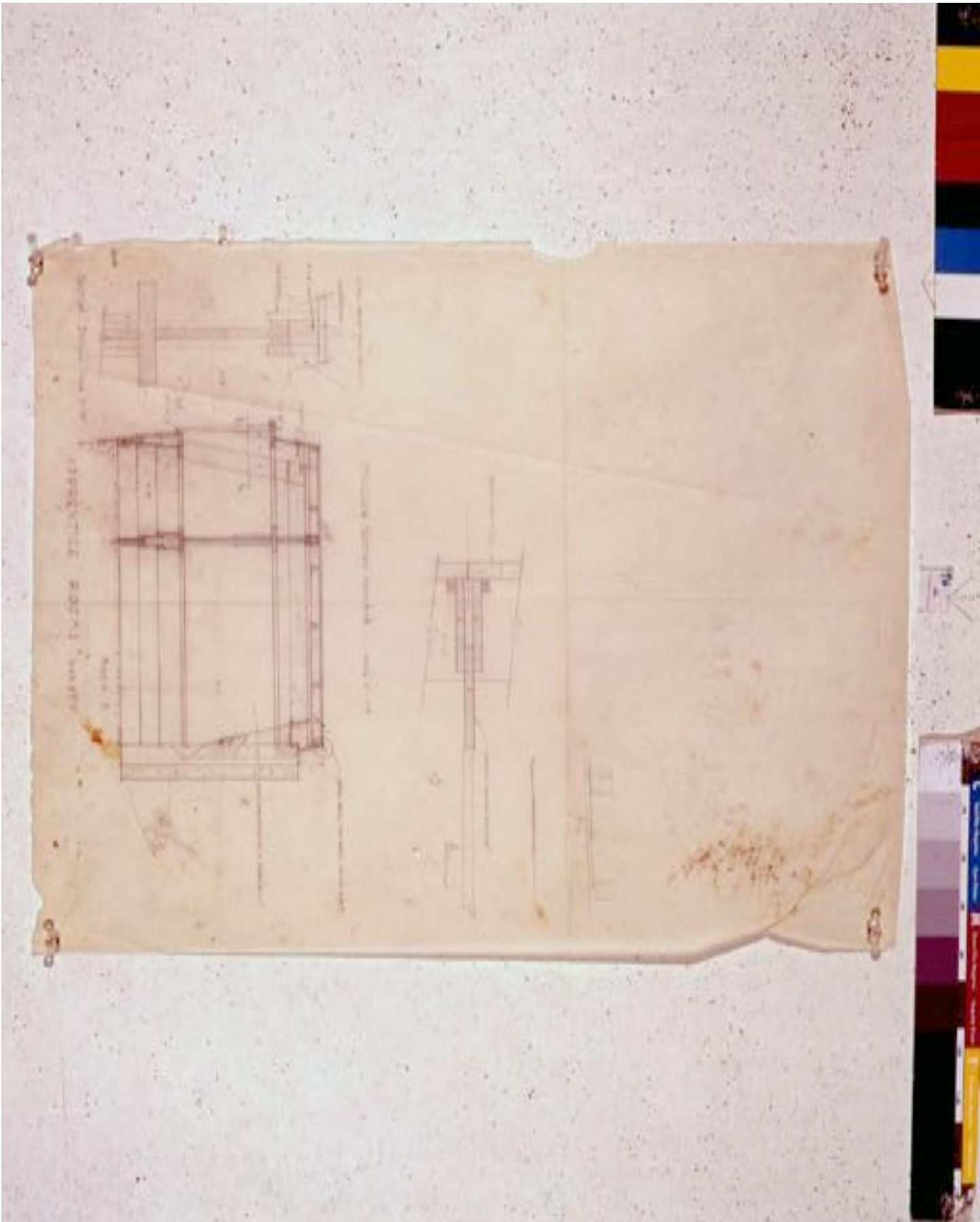


Figure B-66 - Apprentice Room Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

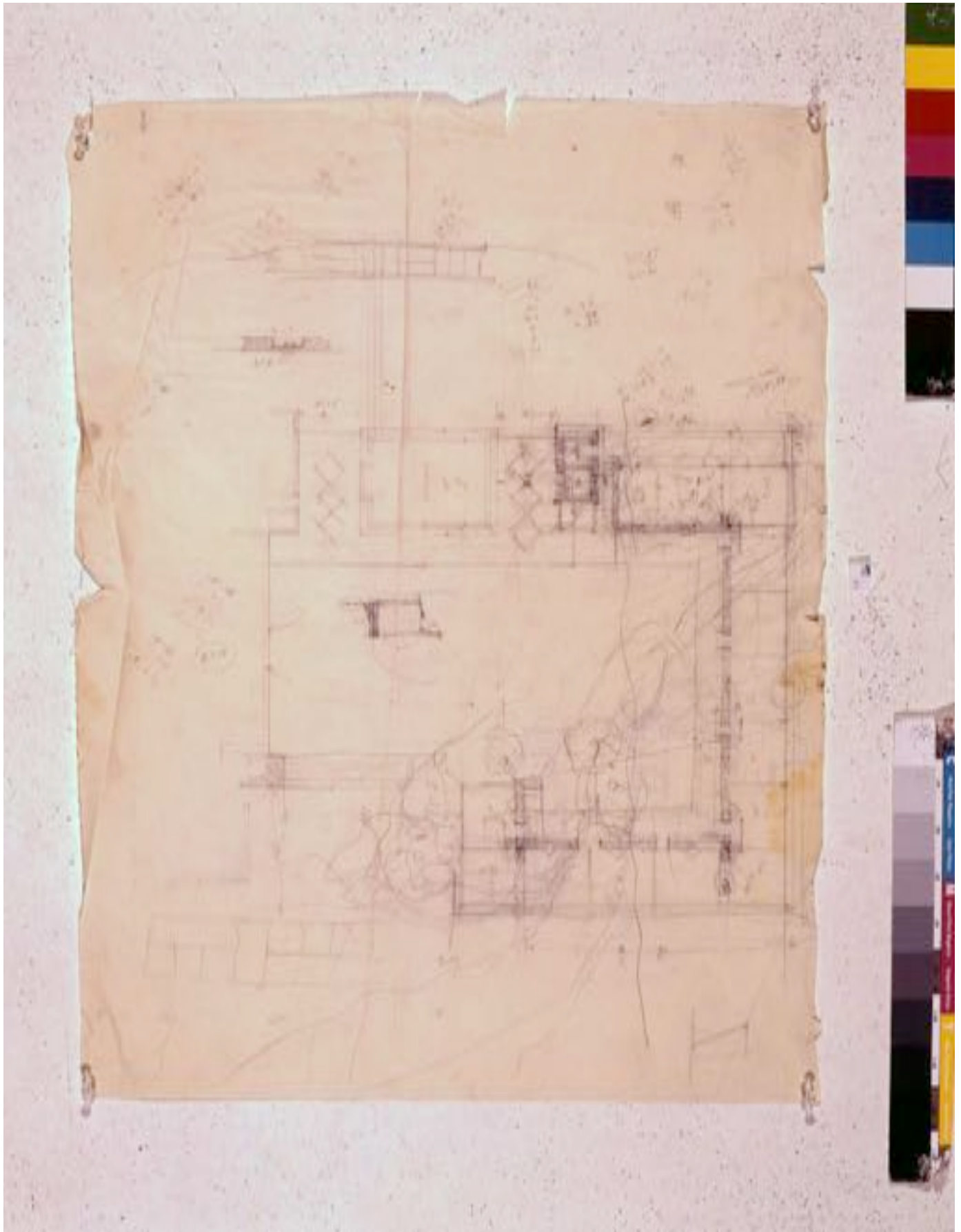


Figure B-67 - Apprentice Room Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-68 - Lanai Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

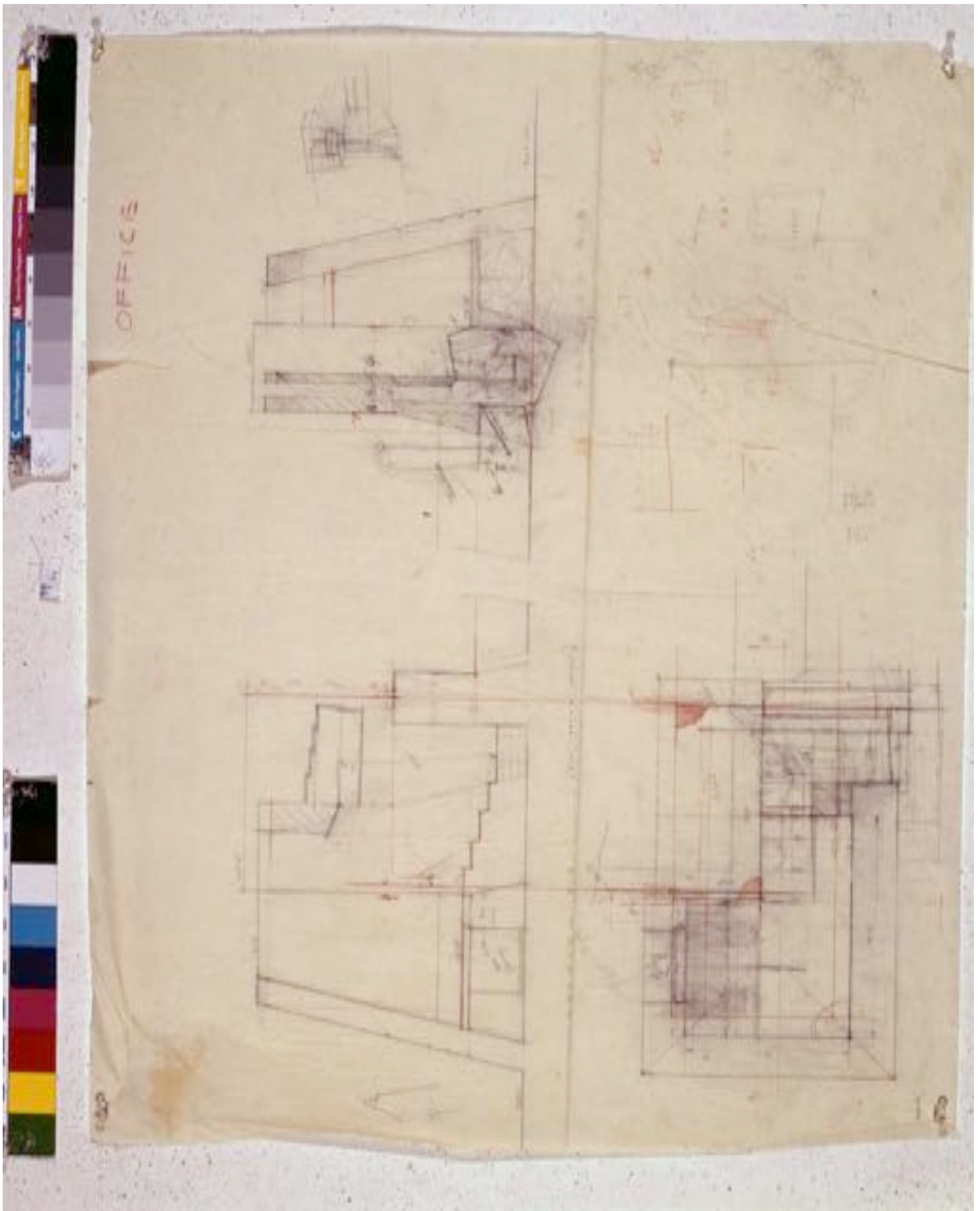


Figure B-69 - Plan of Fire Toilet (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

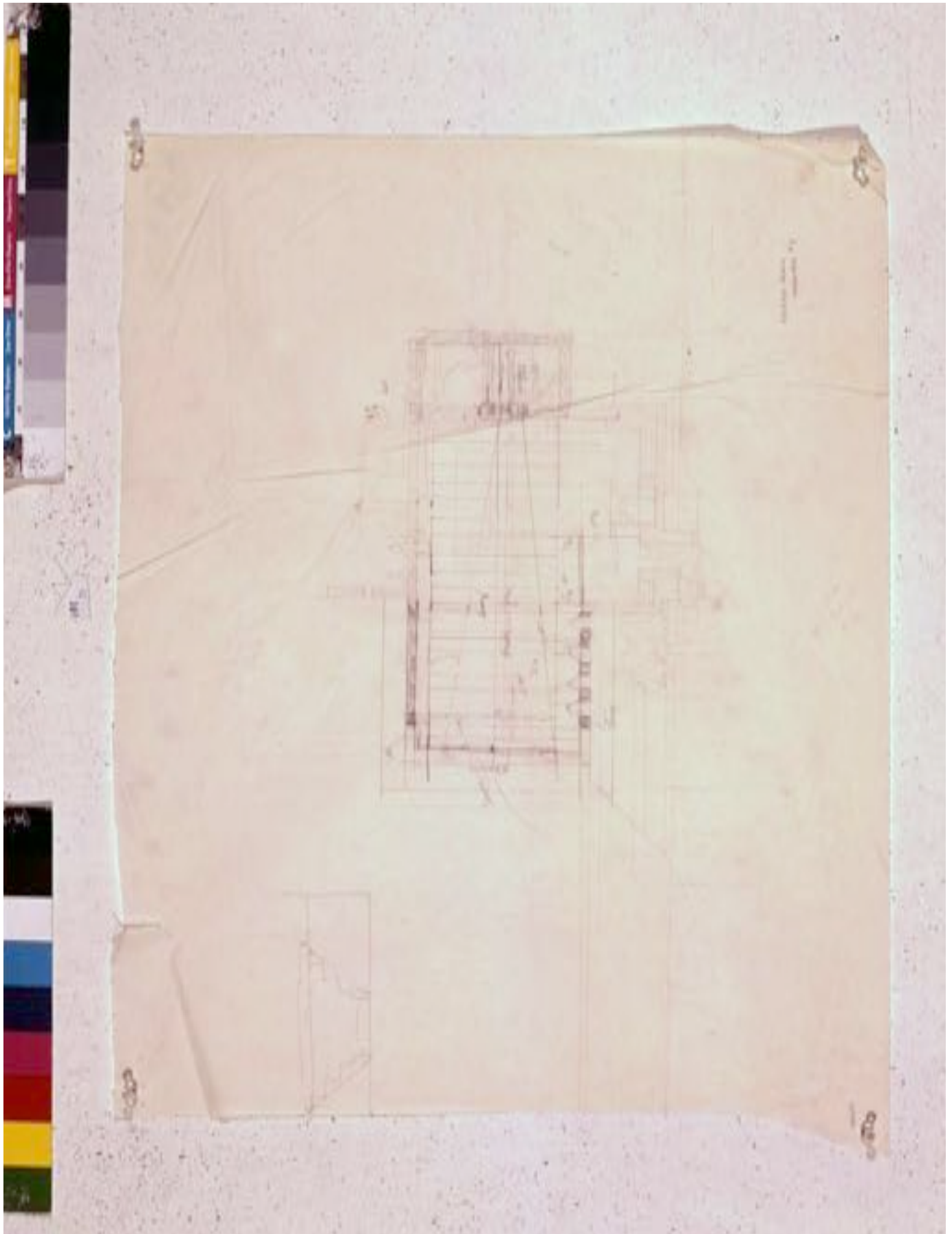


Figure B-71 - Theatre Expansion (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

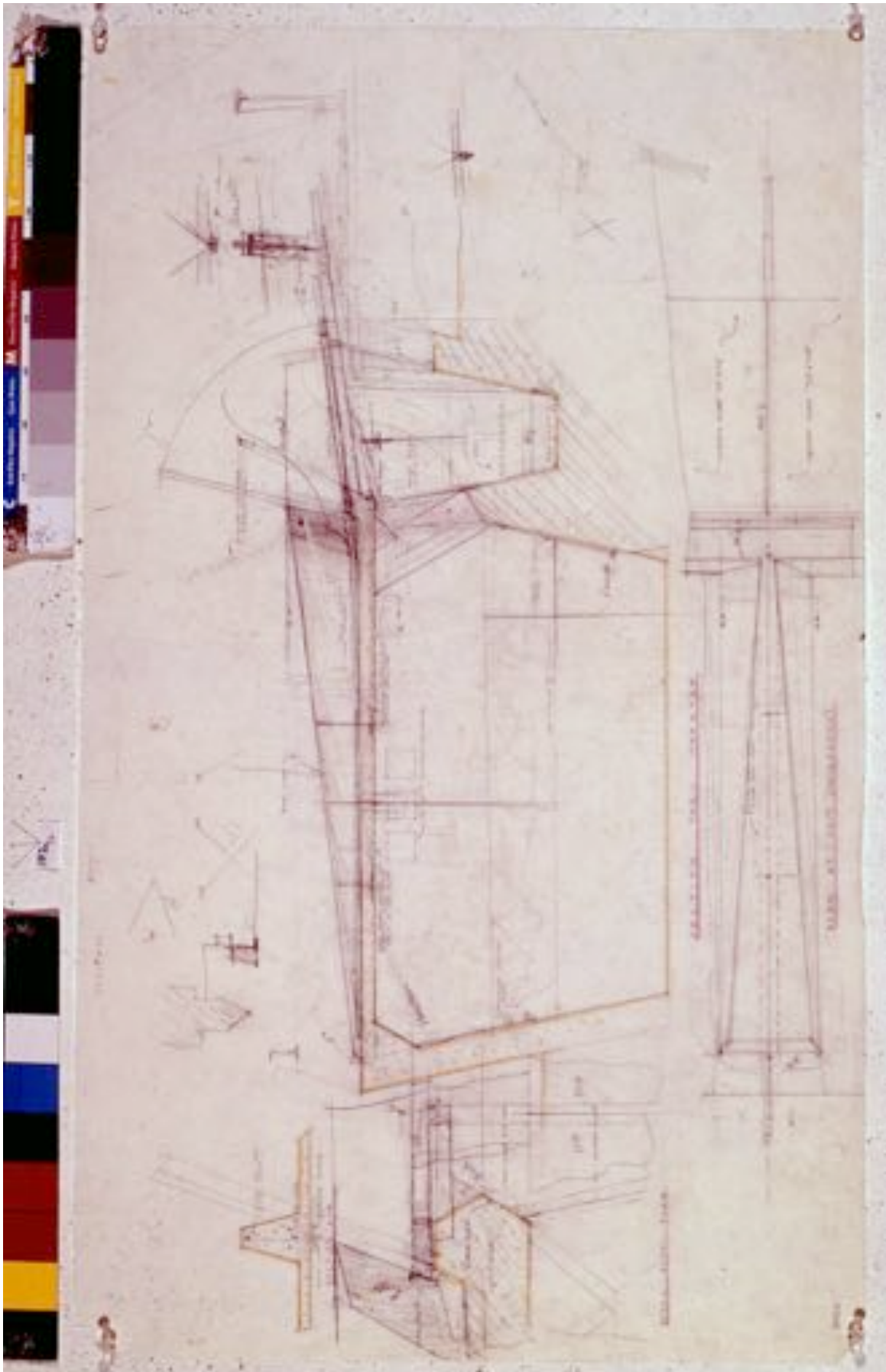


Figure B-72 - Cabaret Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

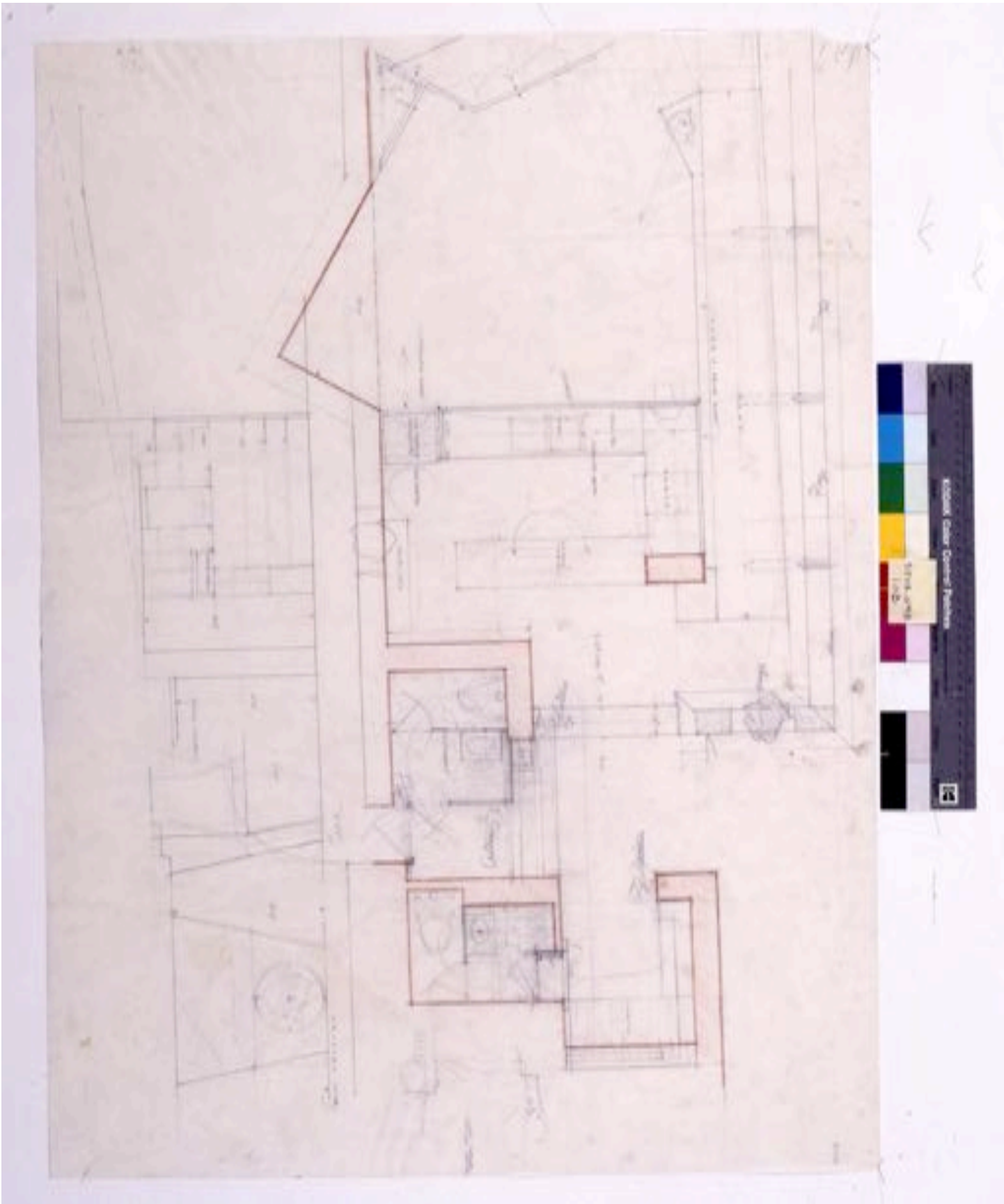


Figure B-73 - Cabaret Kitchen Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

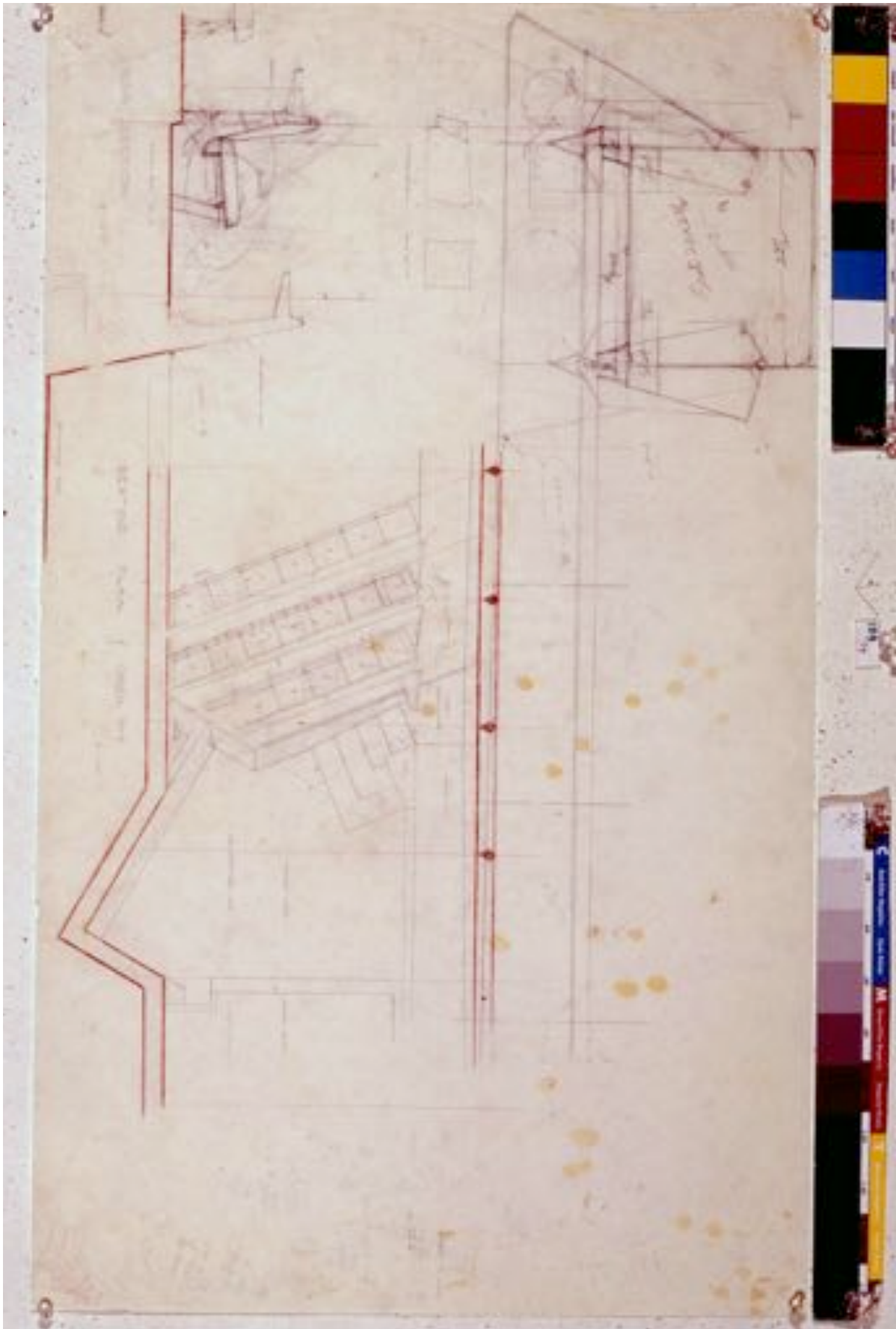


Figure B-74 - Cabaret Seats/Piers (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

Figure B-75 - Pavilion Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

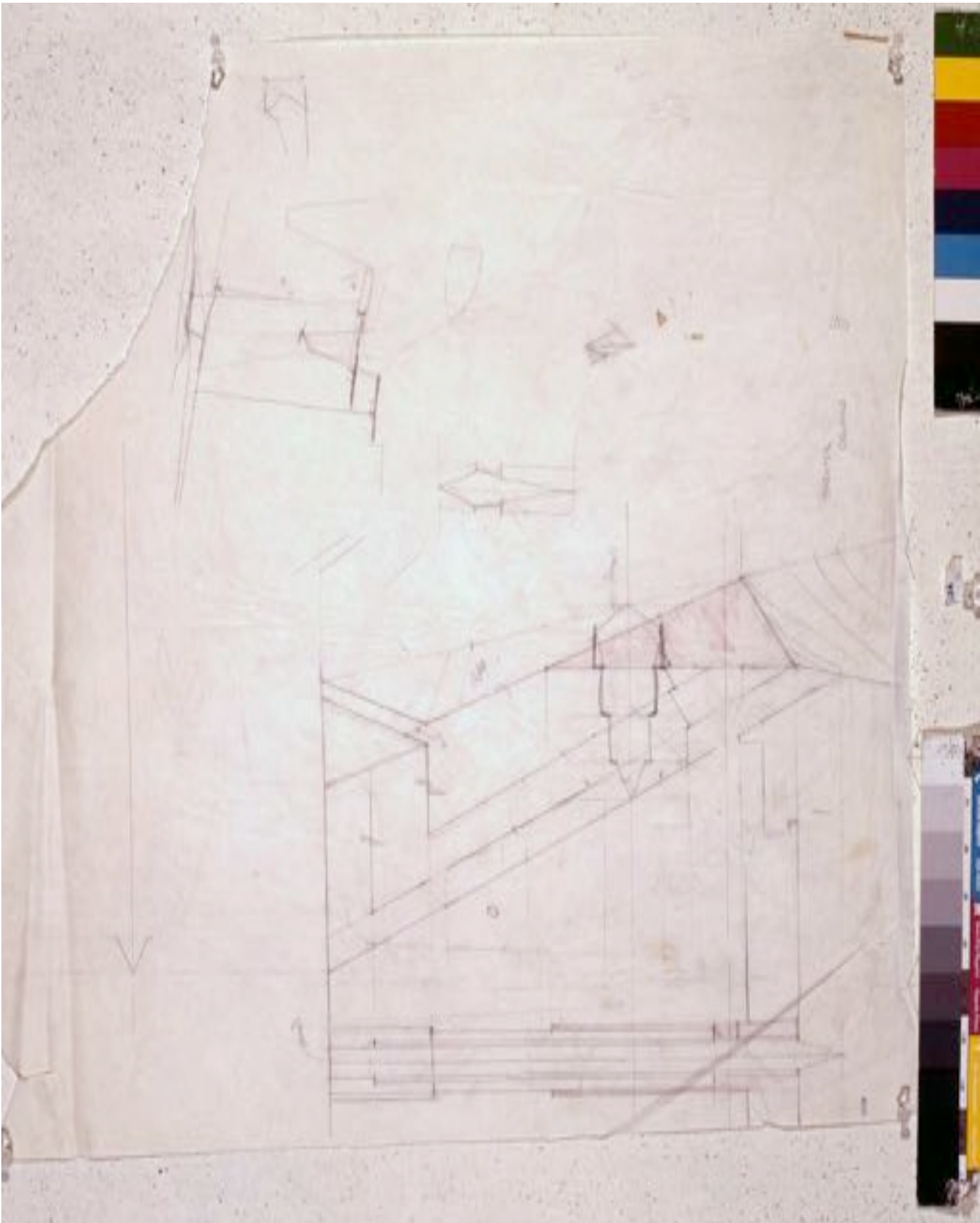


Figure B-76 - Cabaret Pier Detail (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

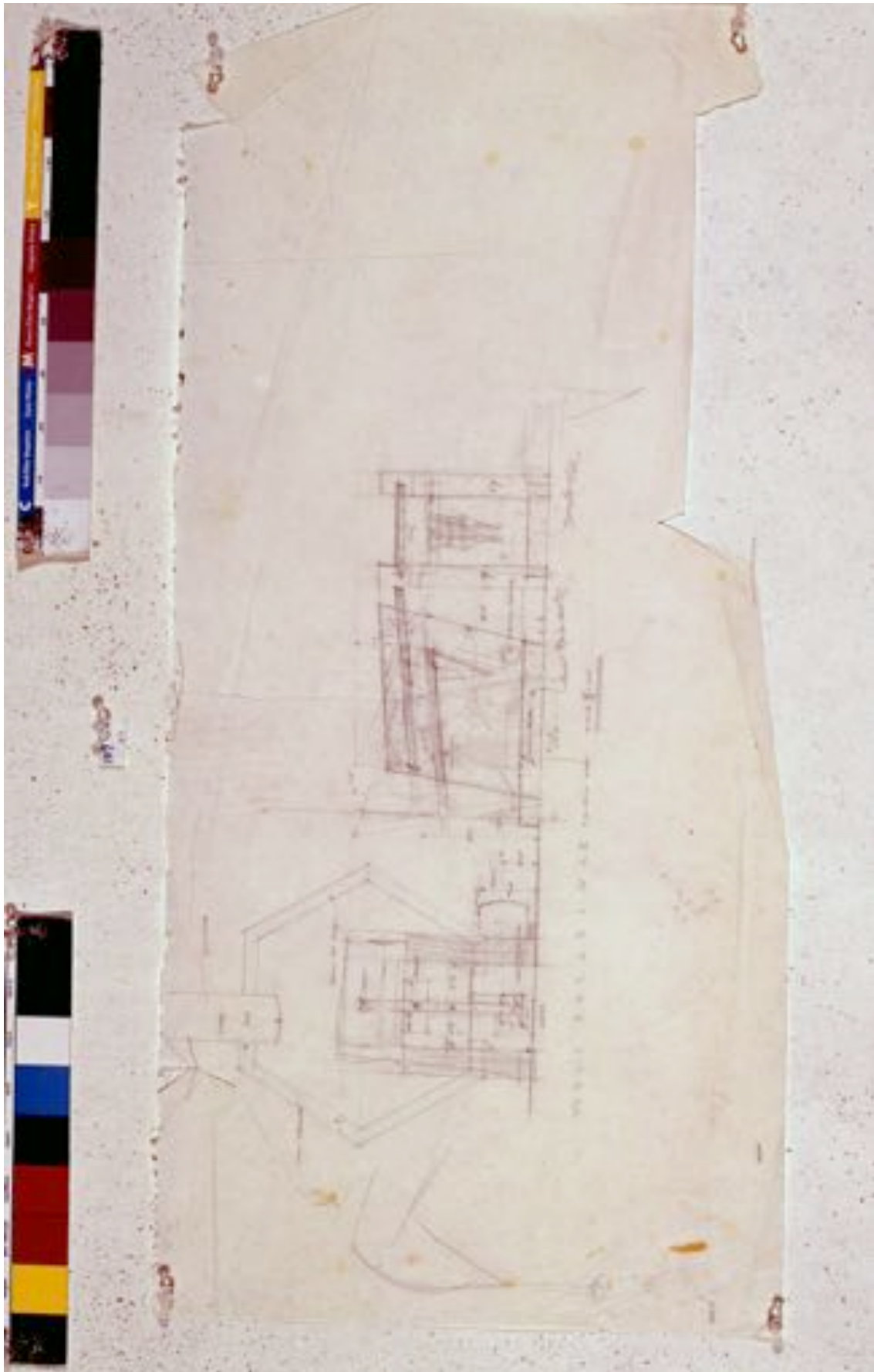


Figure B-77 - Pump House Elevation/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-78 - Cabaret Fireplace Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

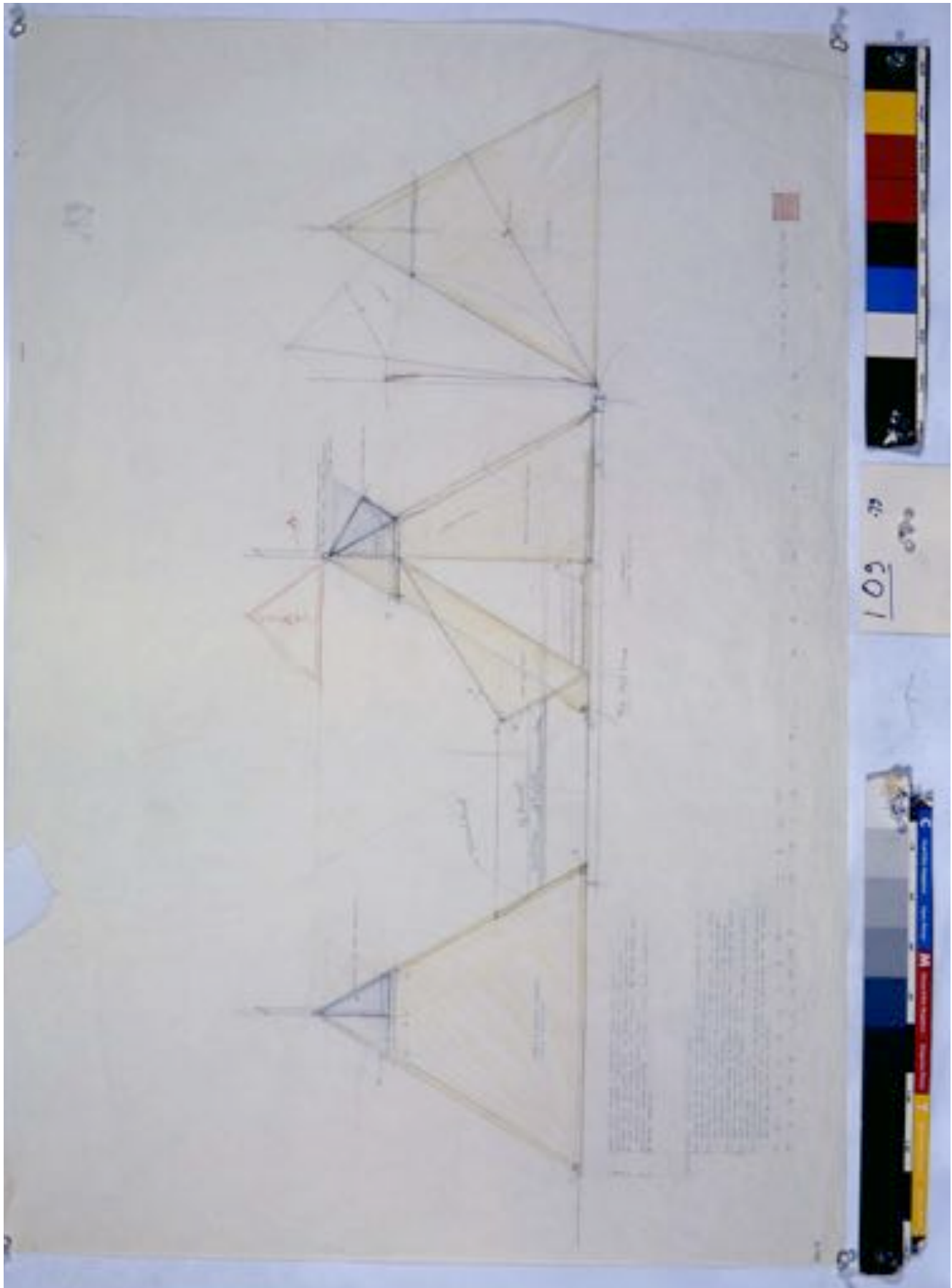


Figure B-79 - Triangular Tent Design (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

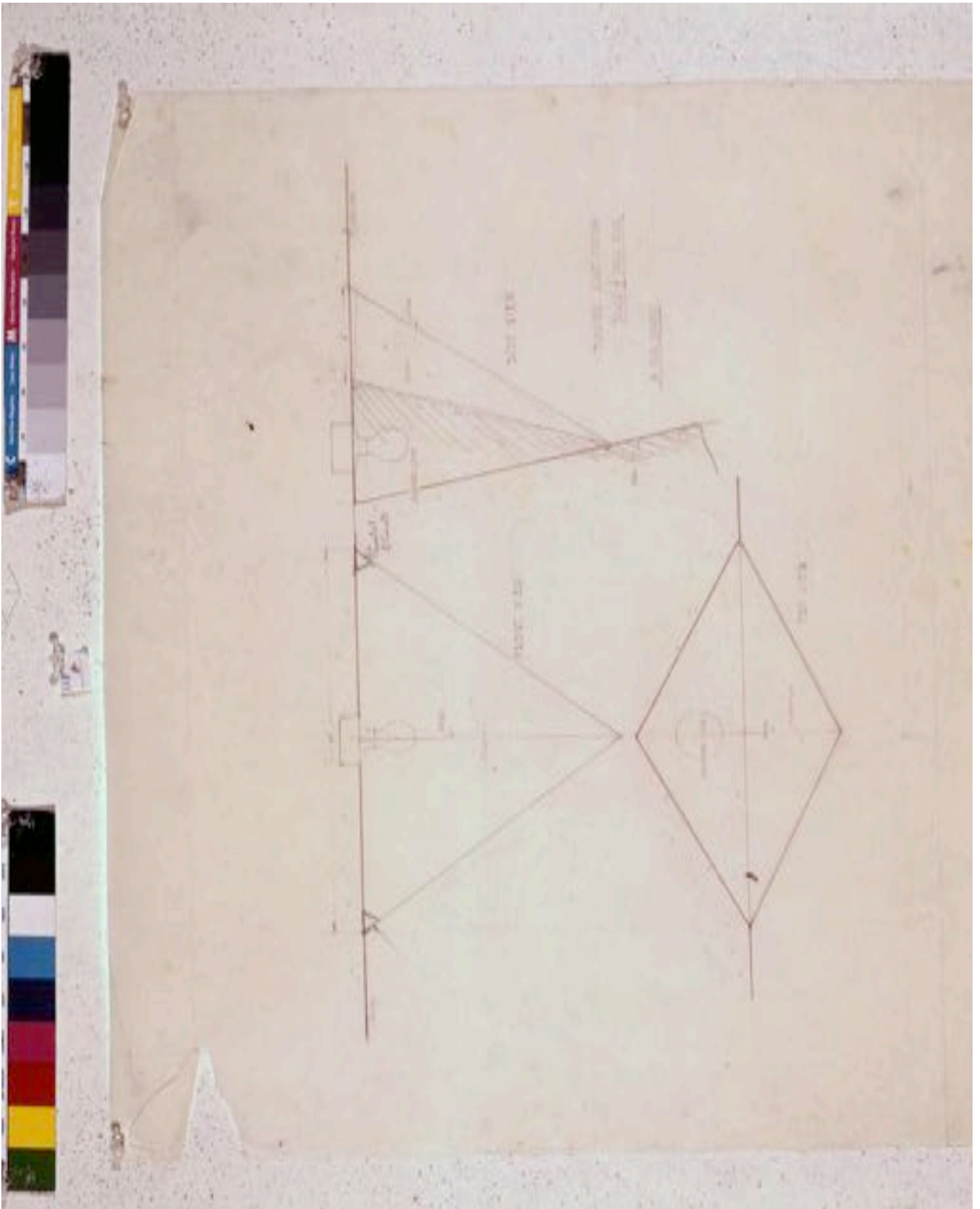


Figure B-80 - Cabaret Wall Light (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

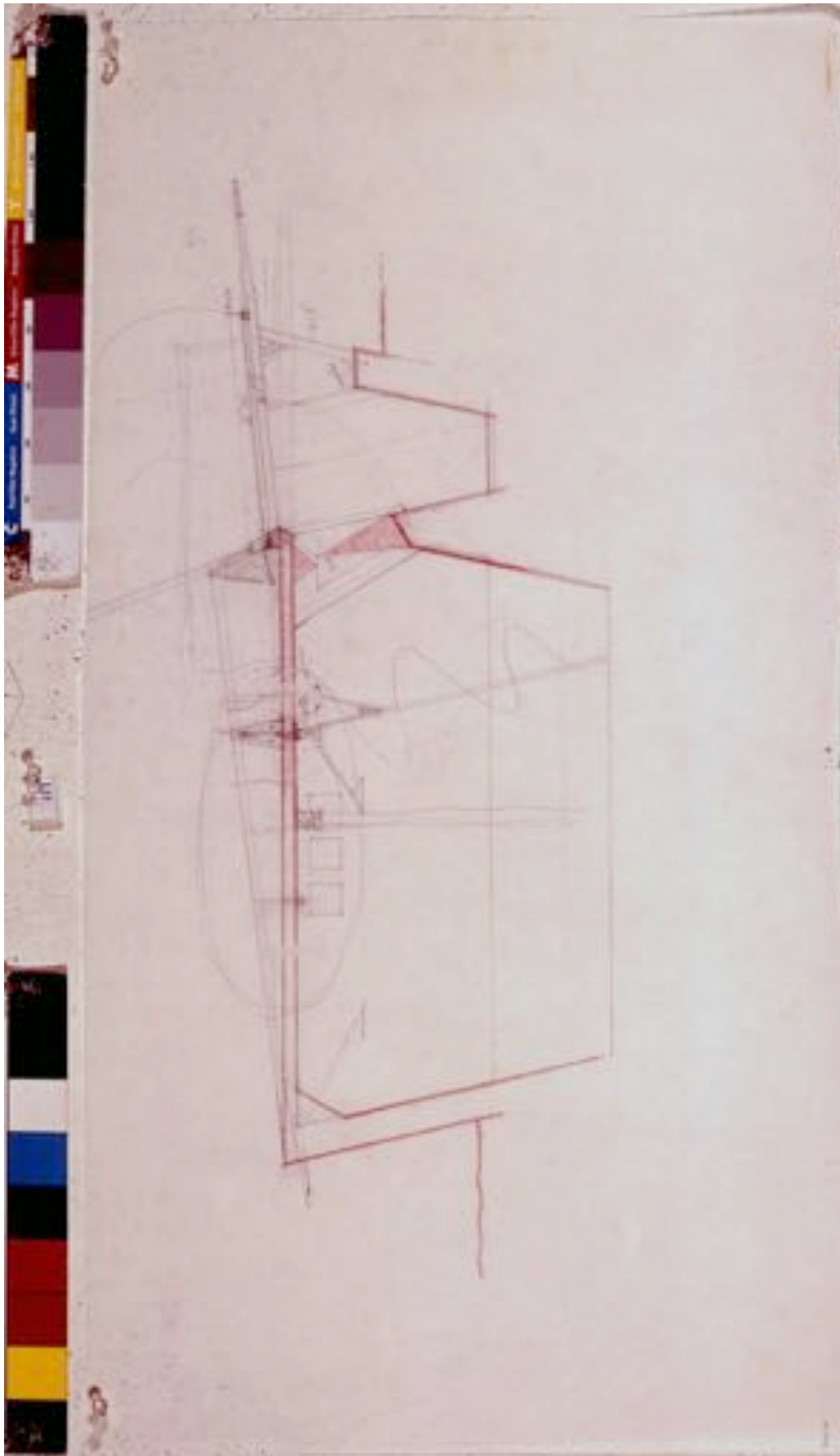


Figure B-81 - Cabaret Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

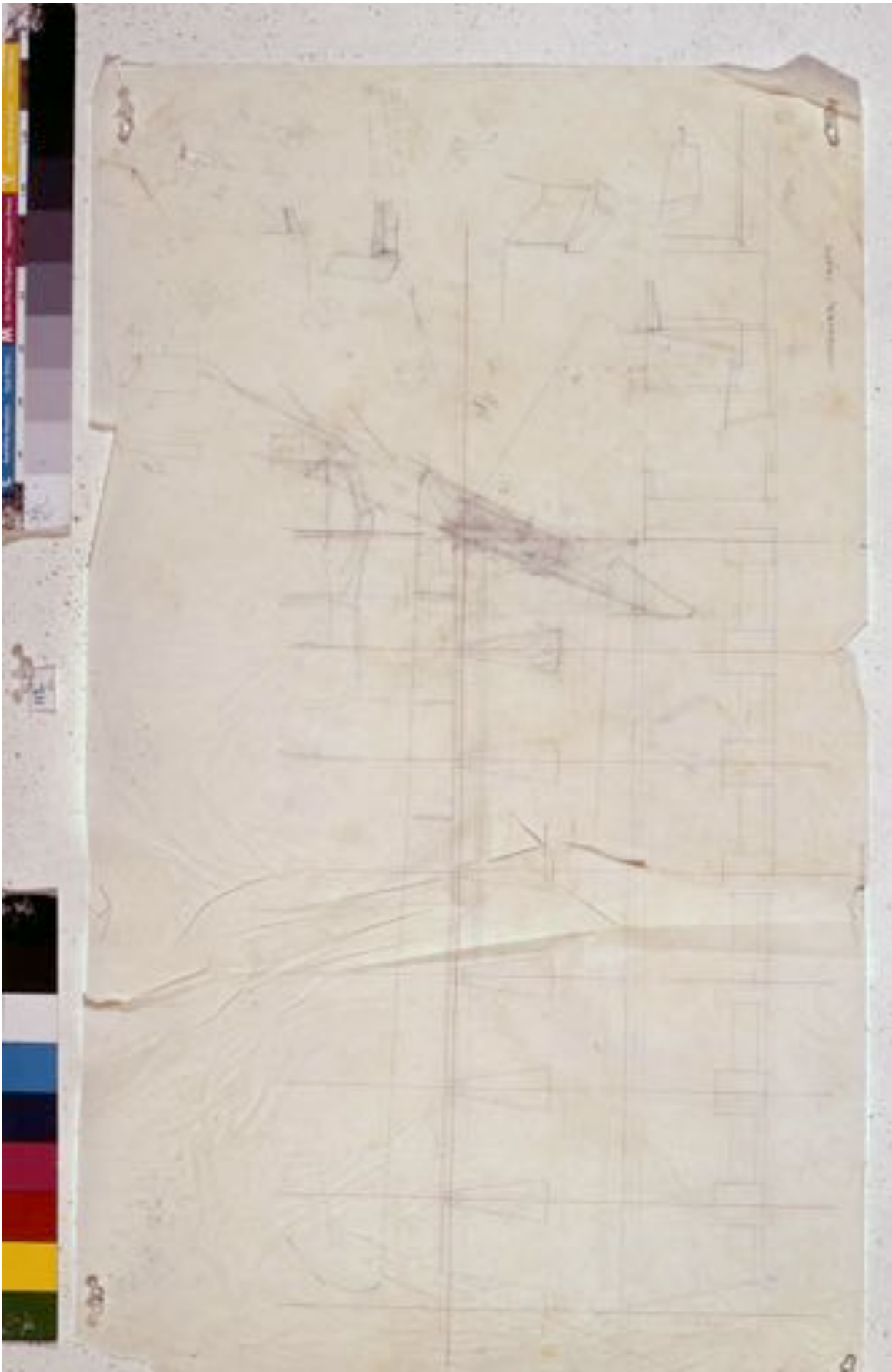


Figure B-82 - Cabaret Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

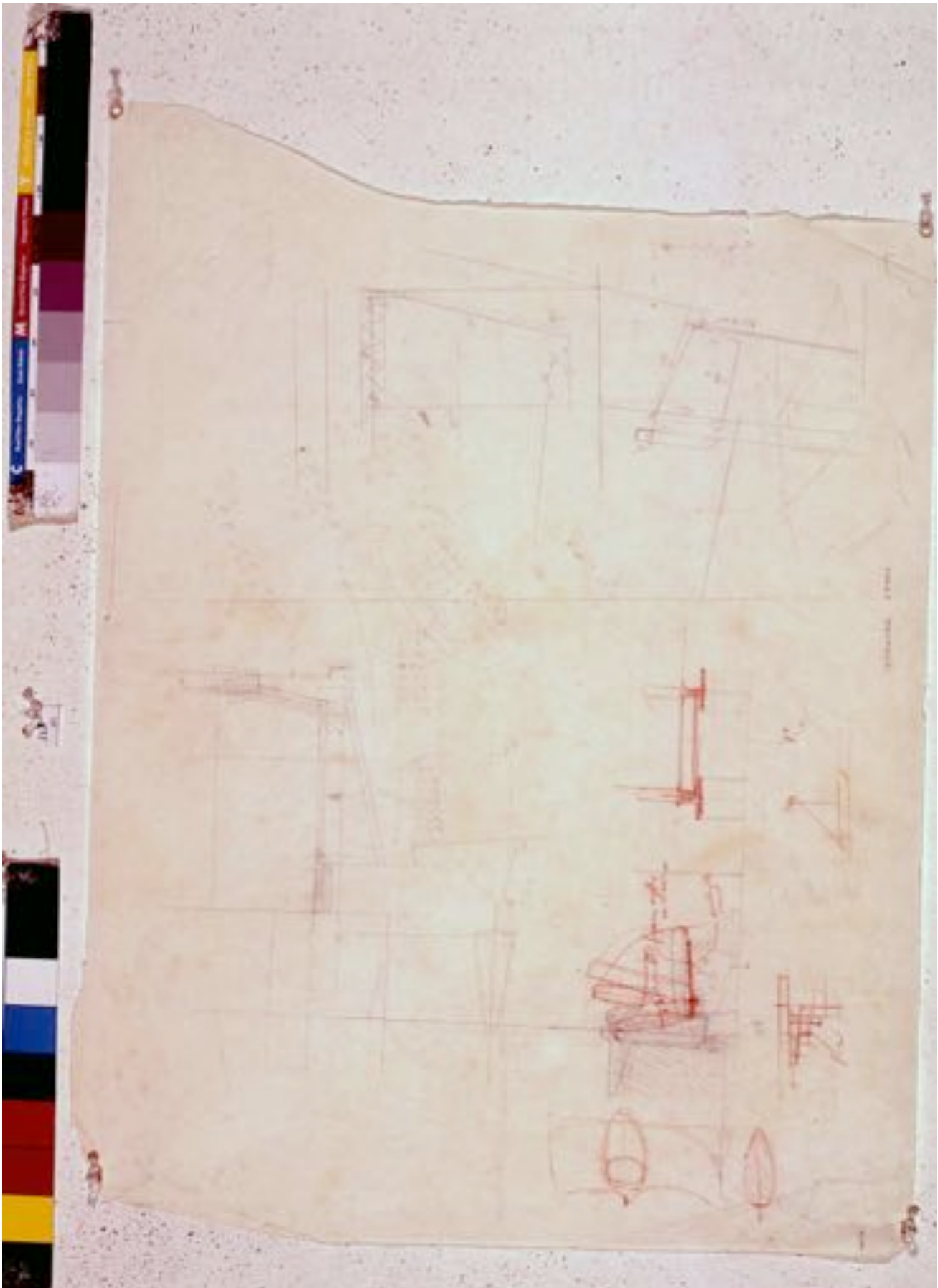


Figure B-83 - Cabaret Seating Detail (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-84 - Master Plan Print (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

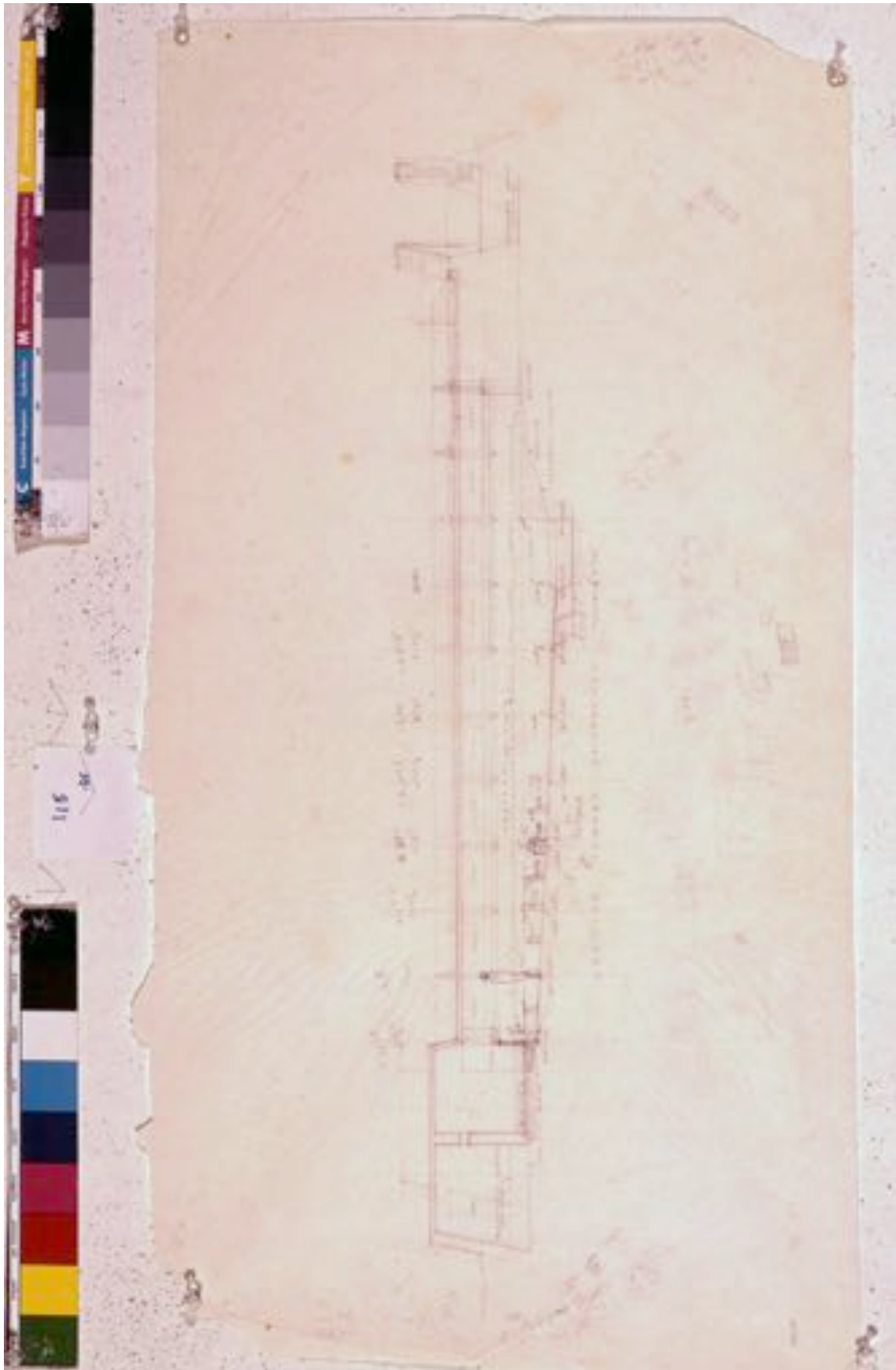


Figure B-85 - Cabaret Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

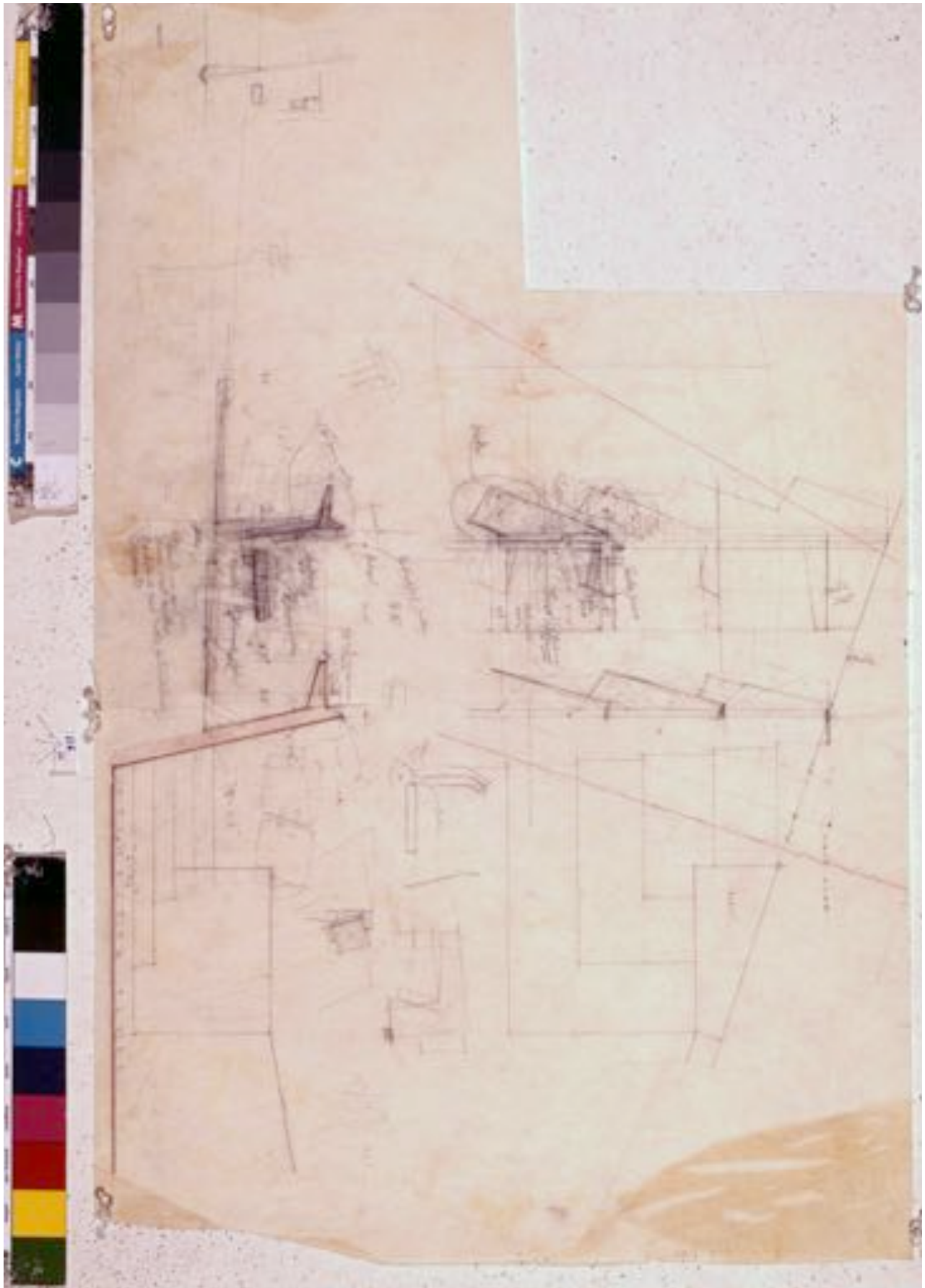


Figure B-86 - Cabaret Seating Detail (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

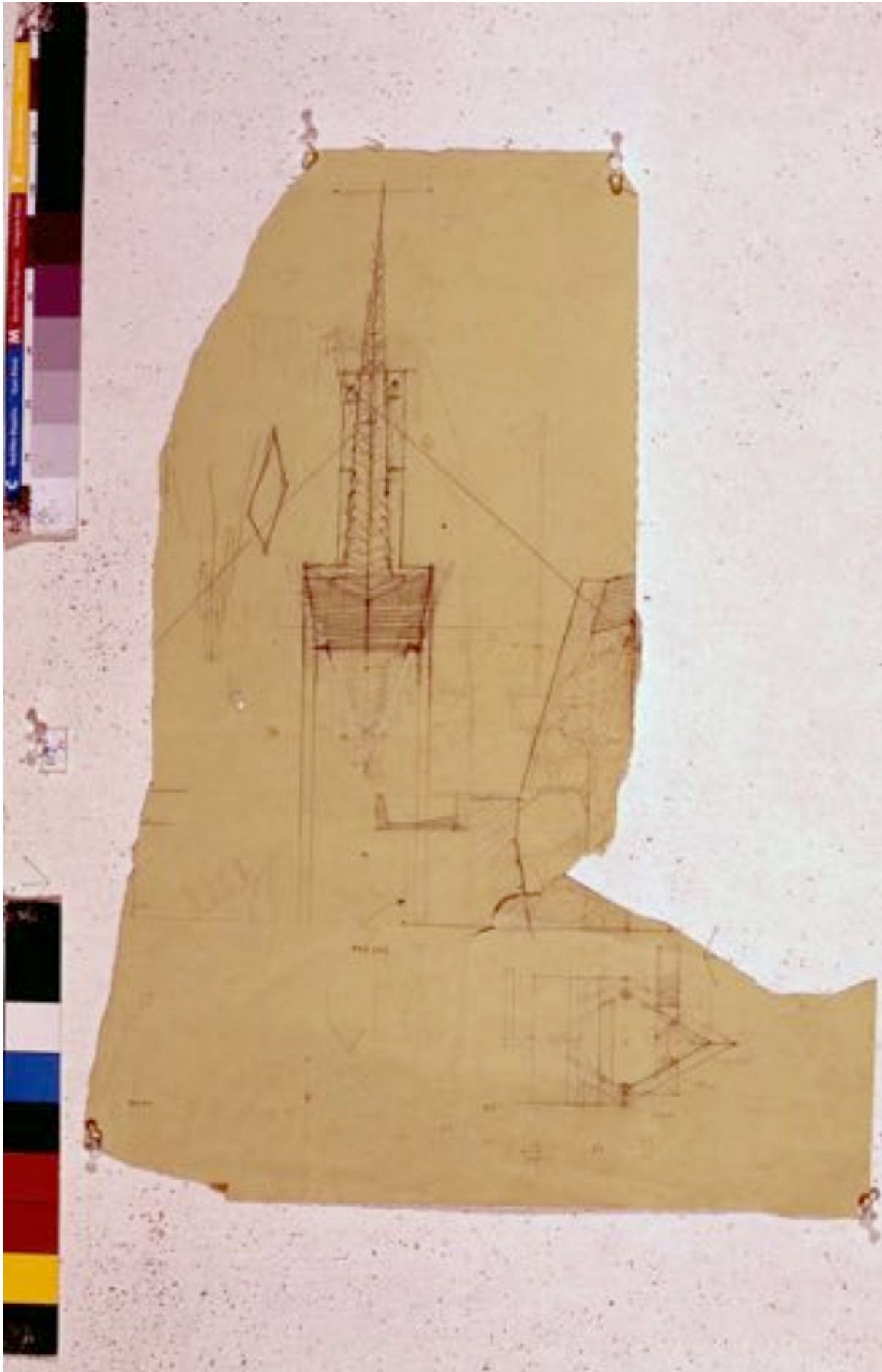


Figure B-87 - Water Tower Plan/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-88 - Dance Temple (Pavilion) Plan/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

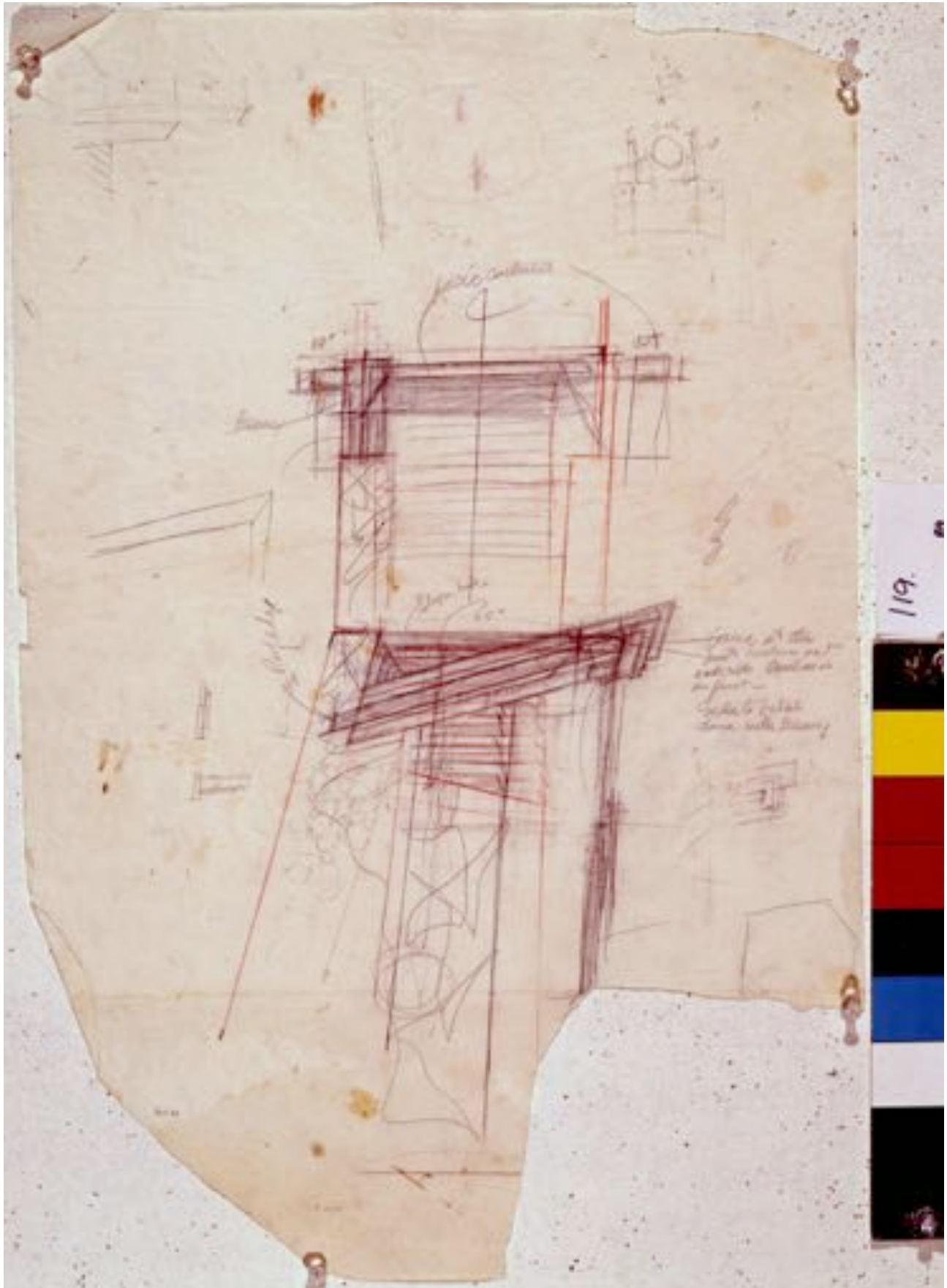


Figure B-89 - Water Tower Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

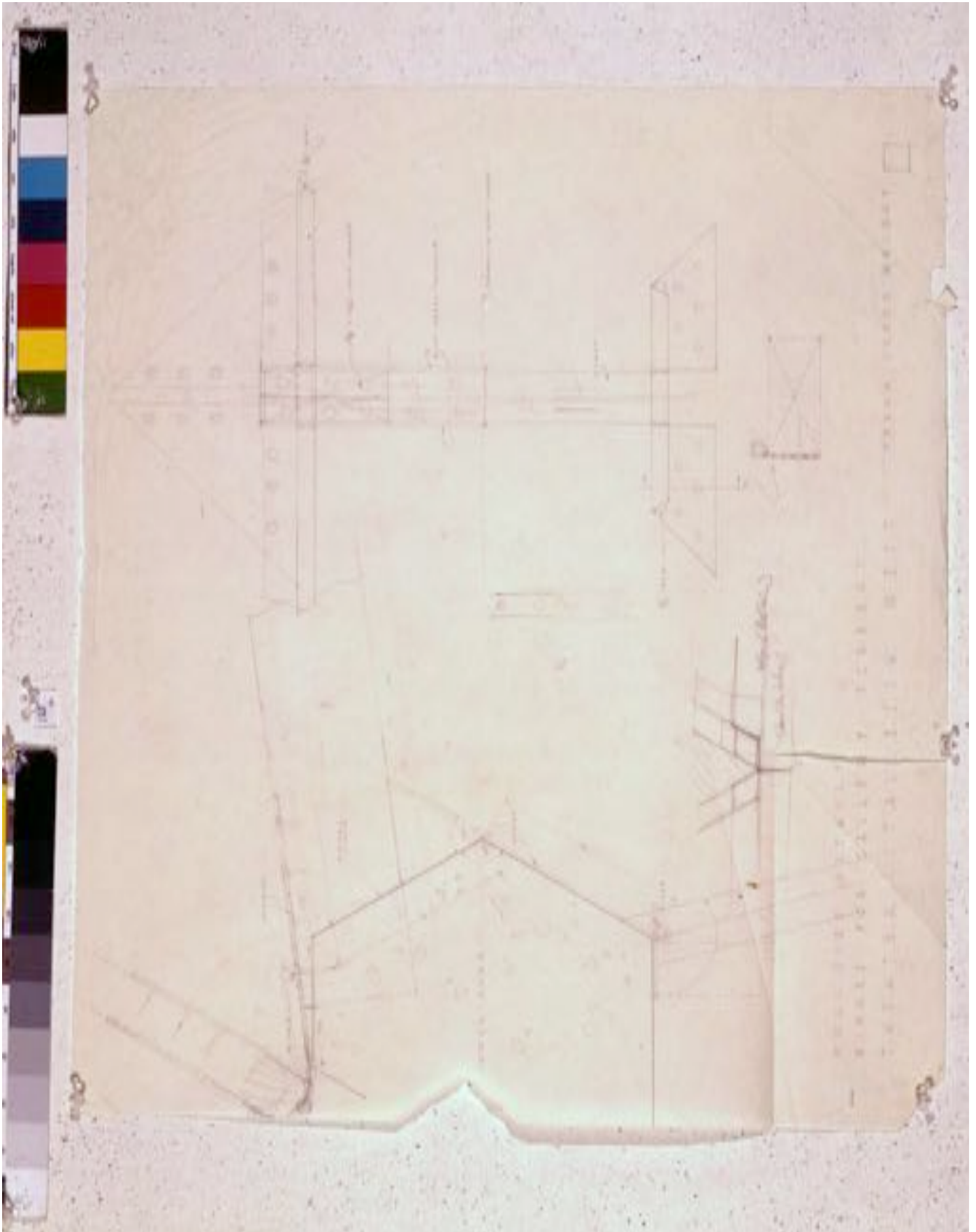


Figure B-90 - Cabaret Hinges/Screen (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

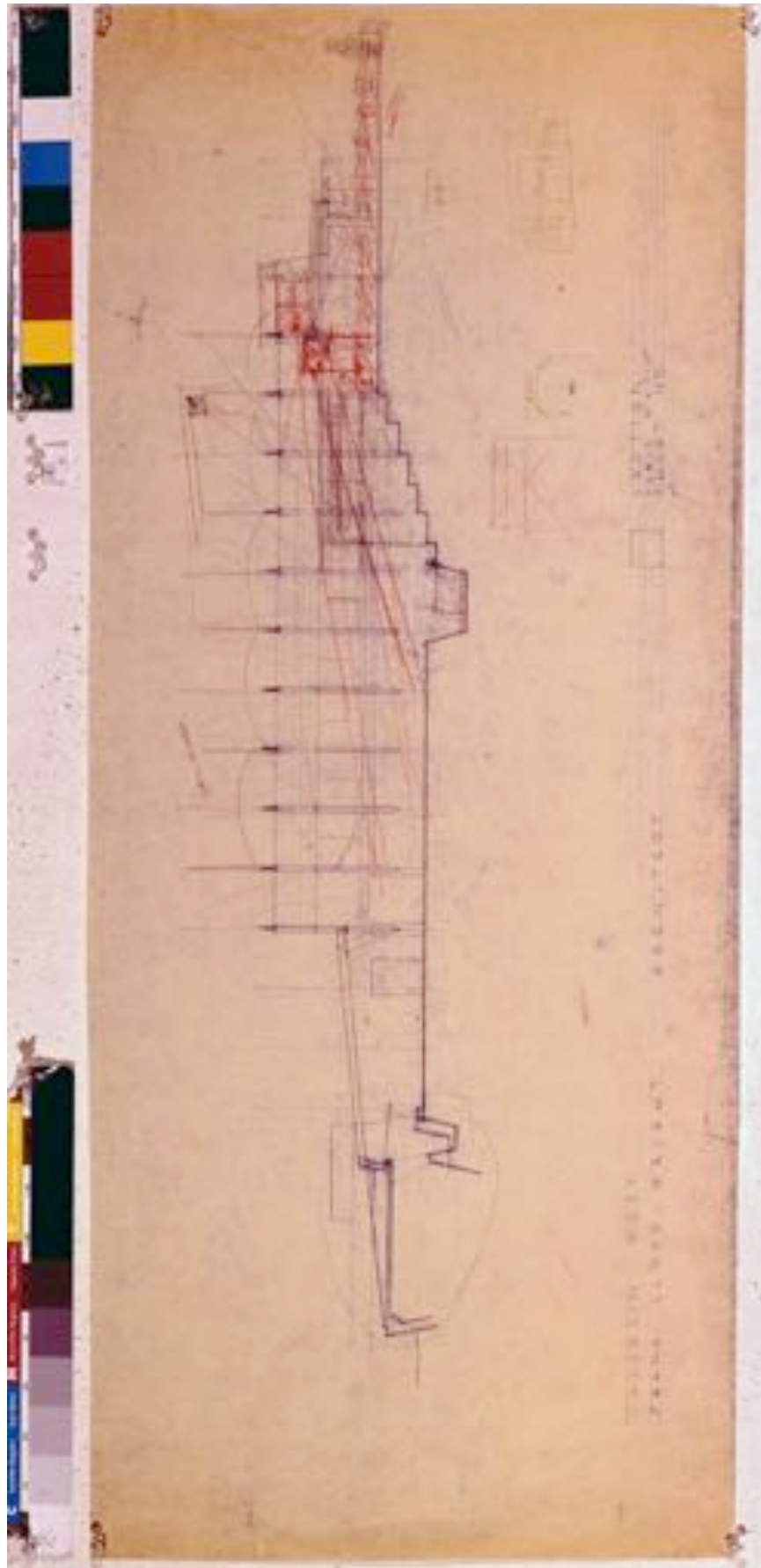


Figure B-91 - Pavilion Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

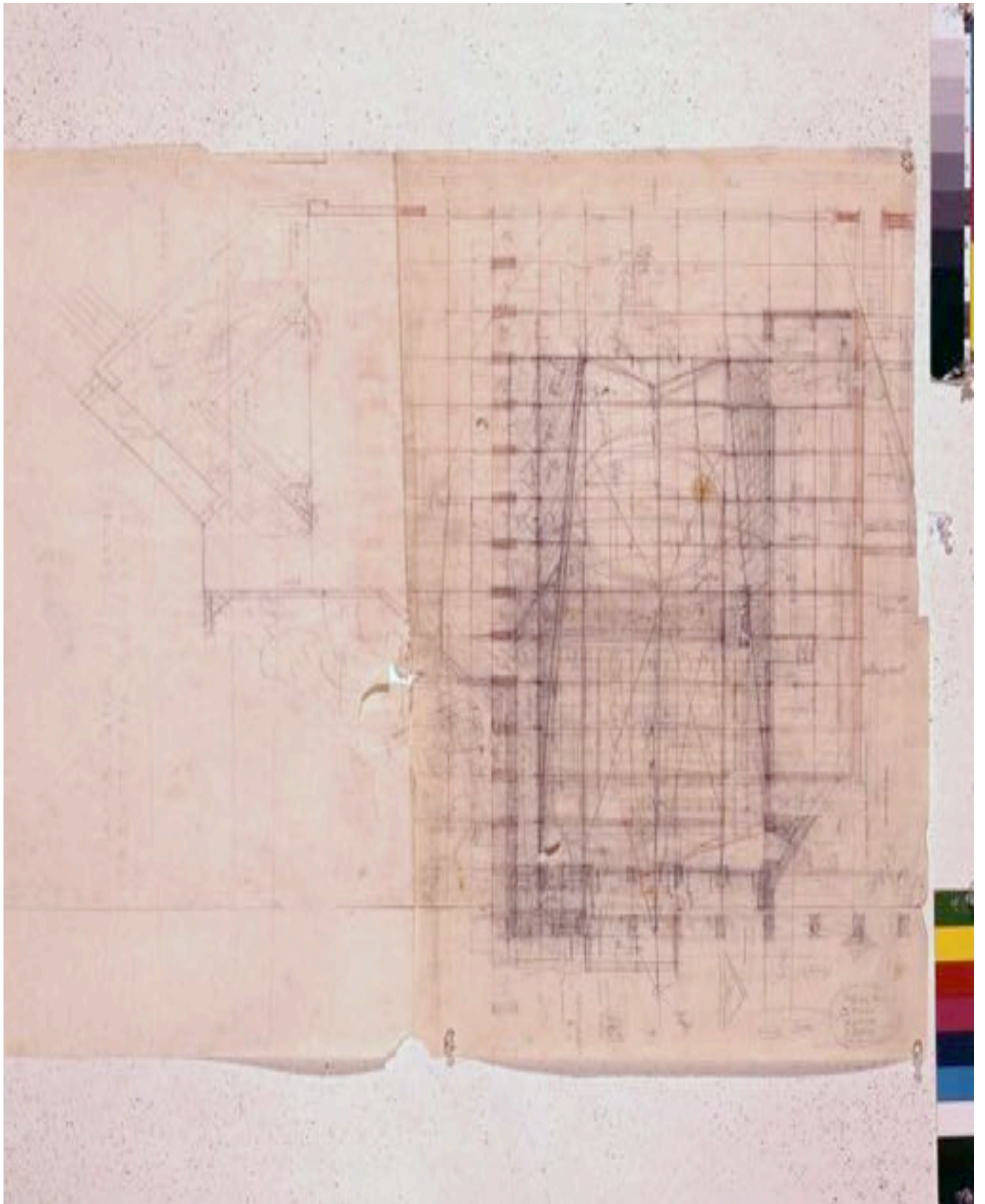


Figure B-92 - Pavilion Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

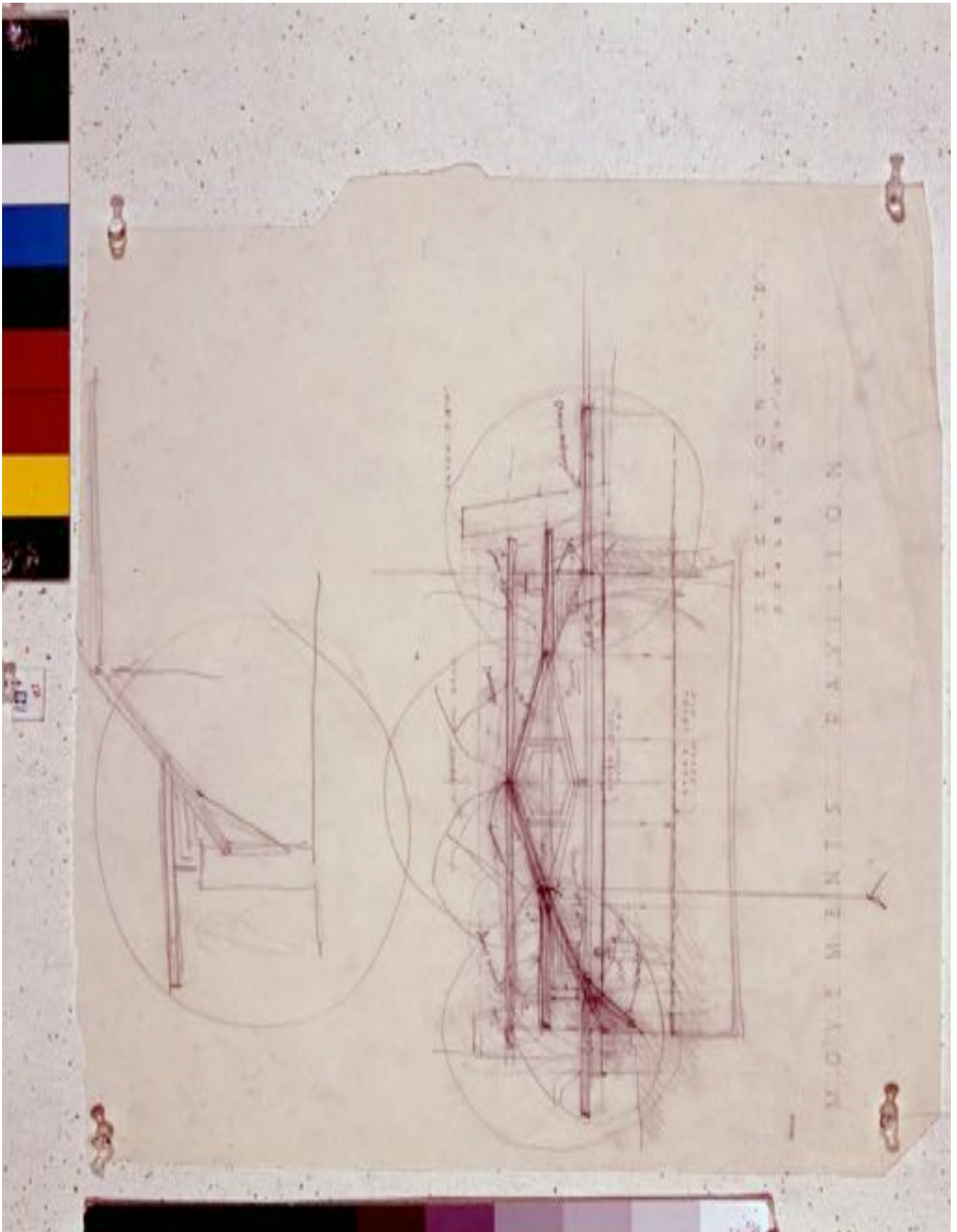


Figure B-93 - Pavilion Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

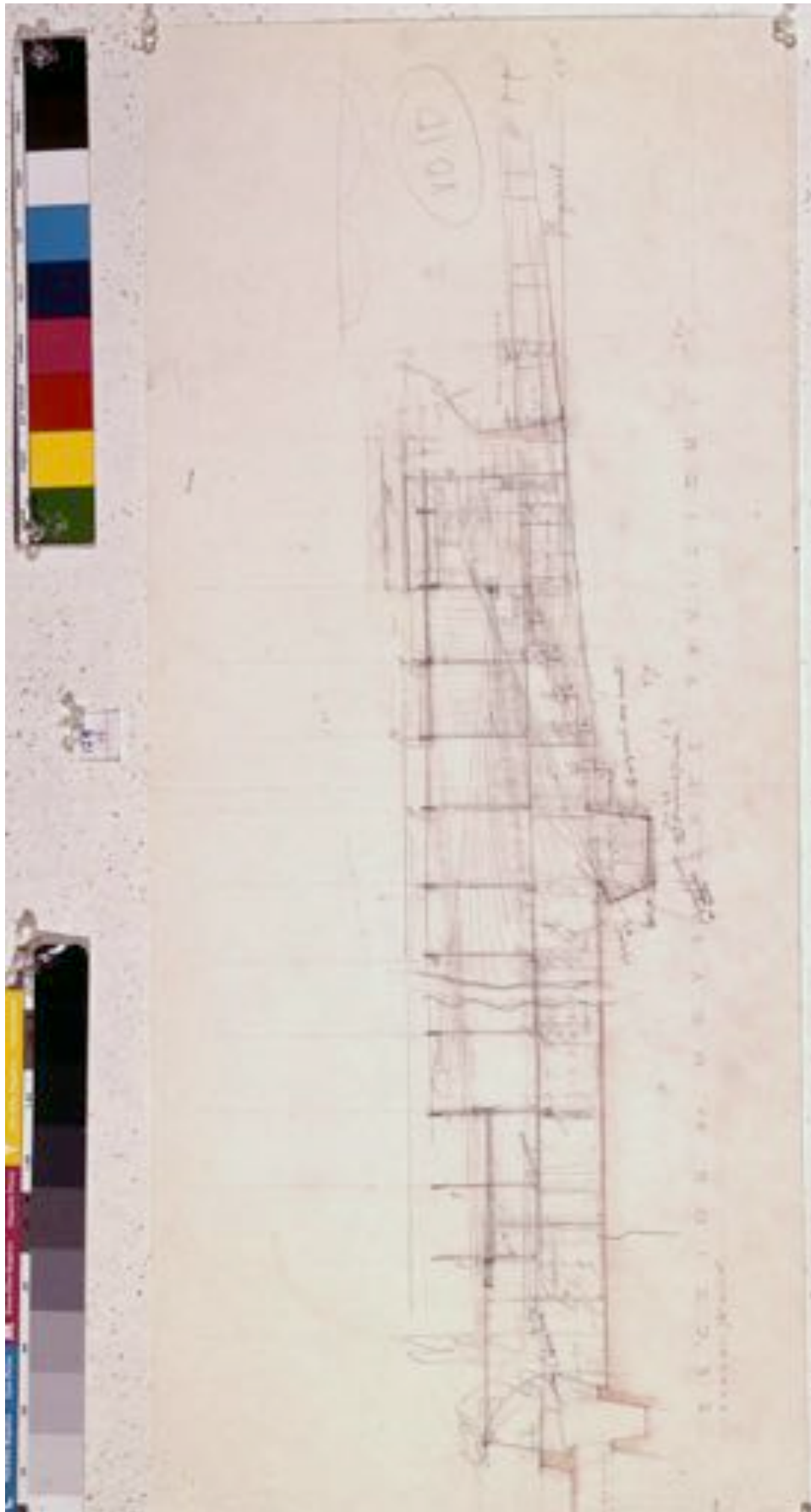


Figure B-94 - Pavilion Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

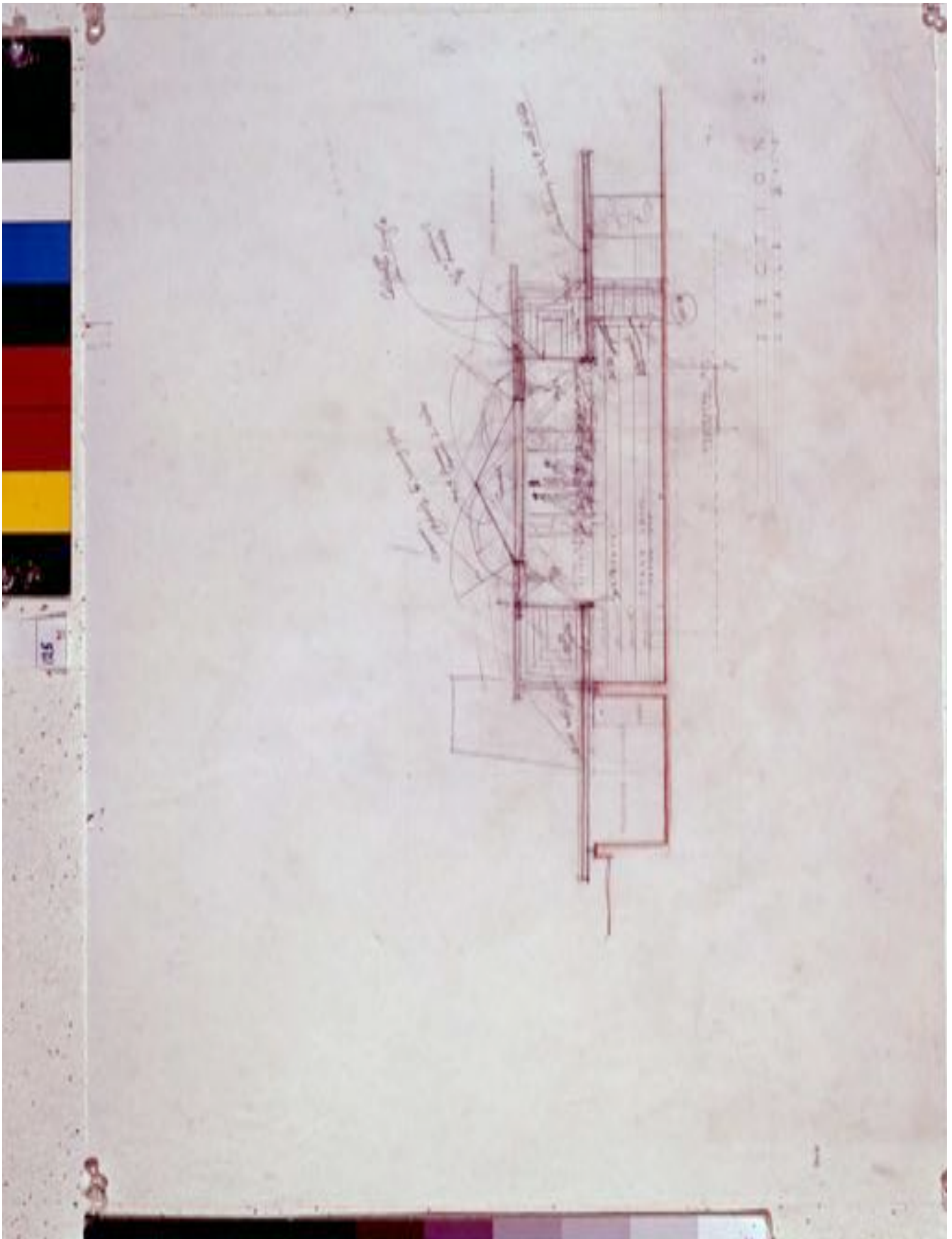


Figure B-95 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

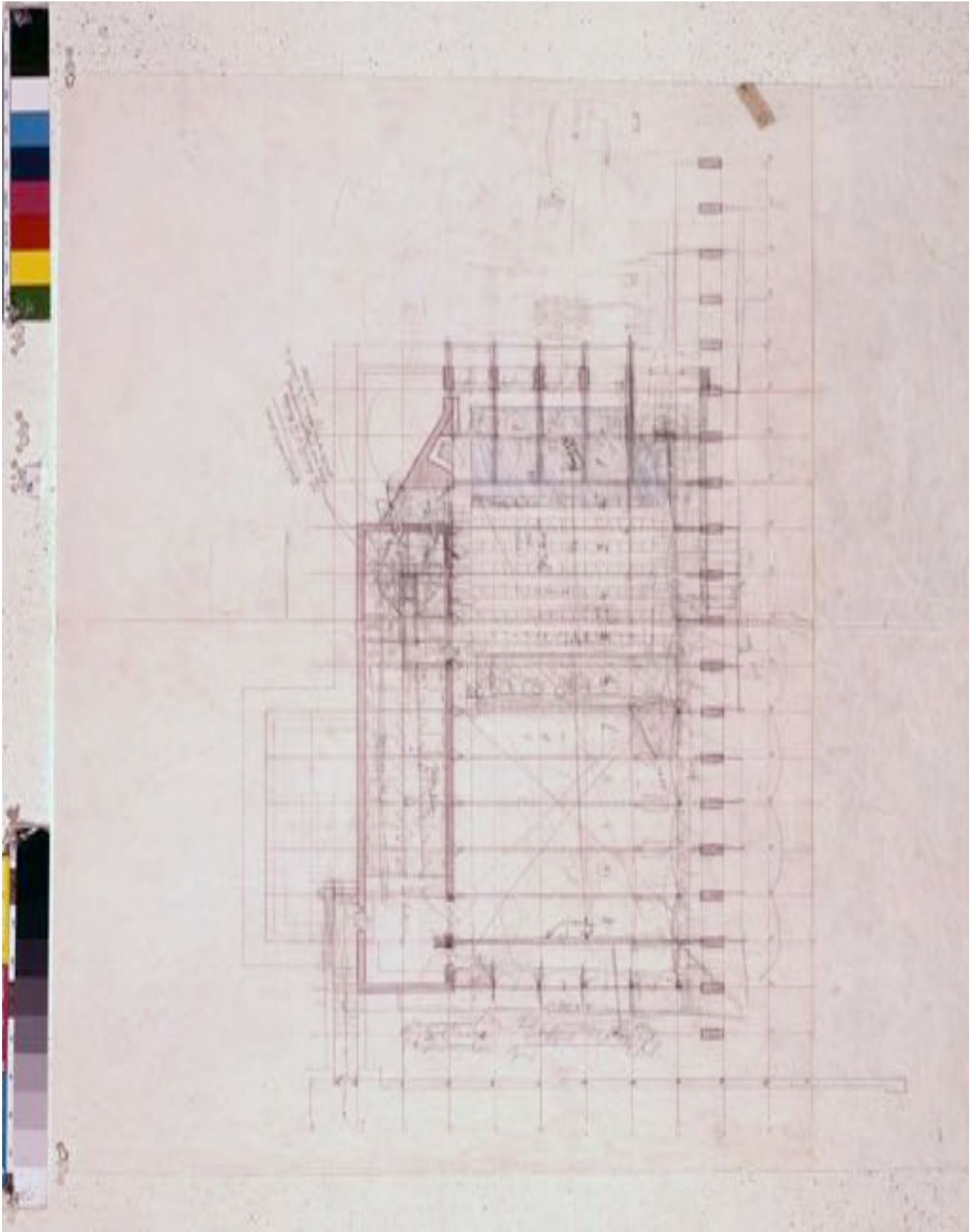


Figure B-96 - Pavilion Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

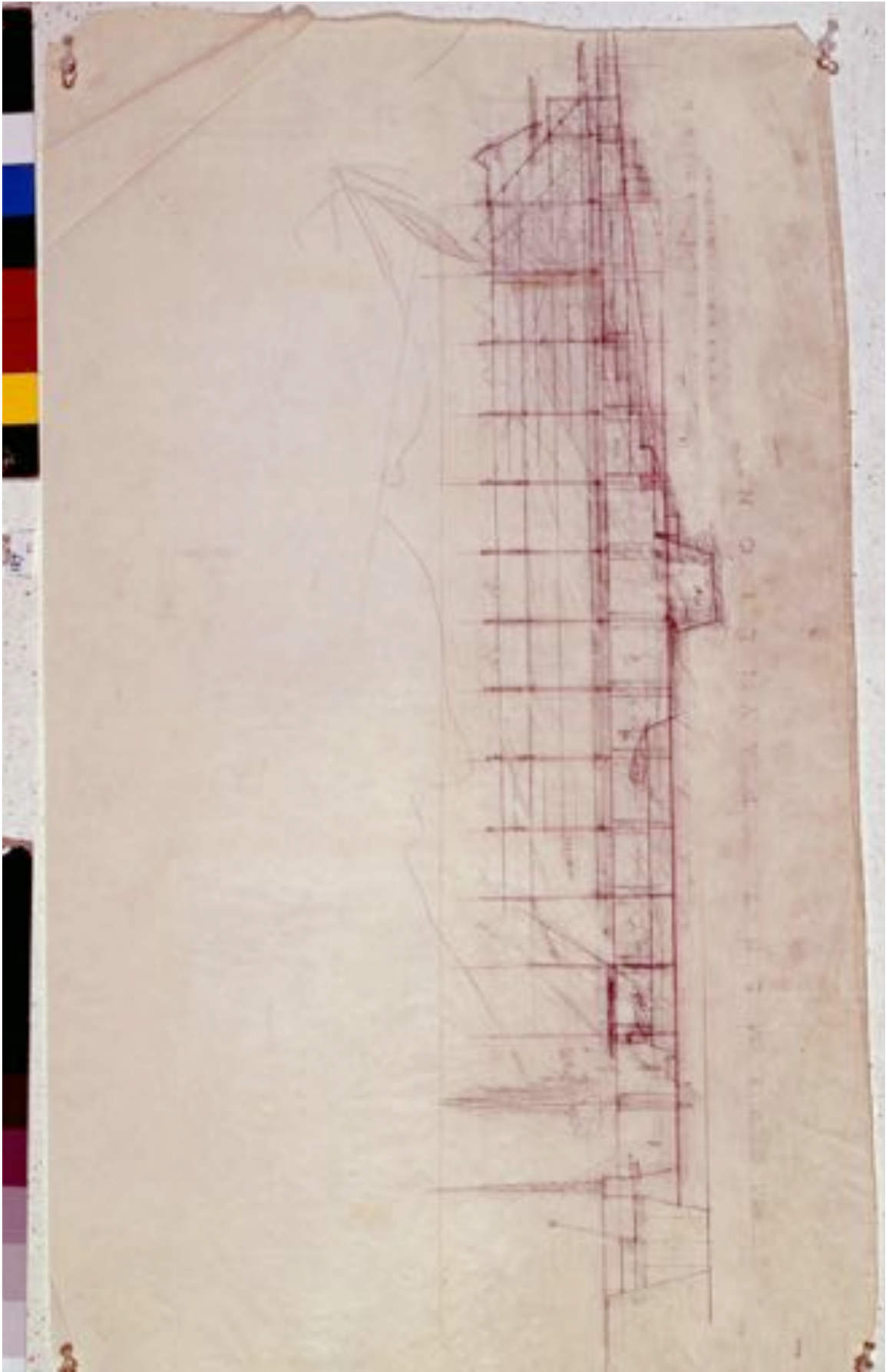


Figure B-97 - Pavilion Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

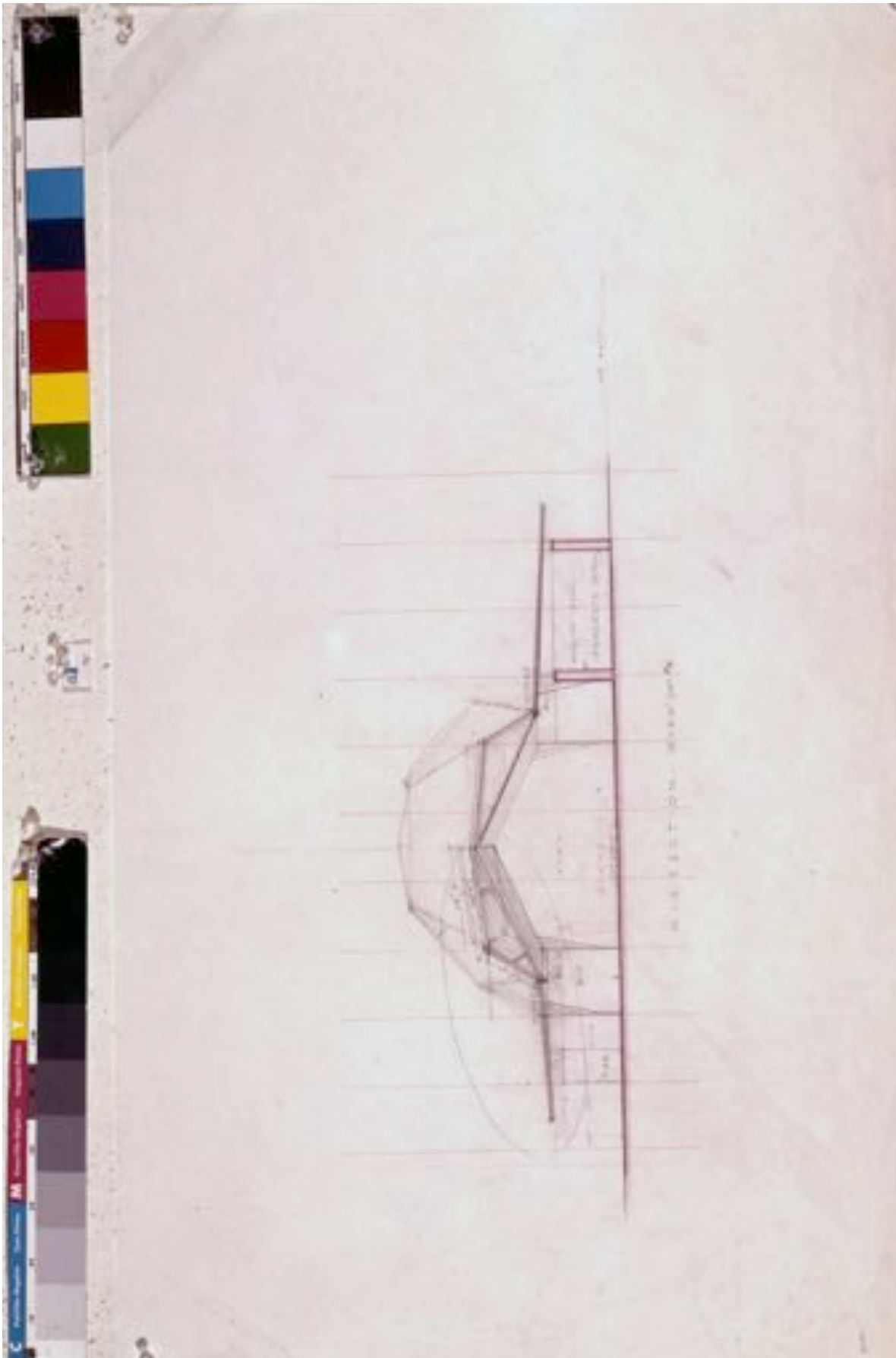


Figure B-98 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

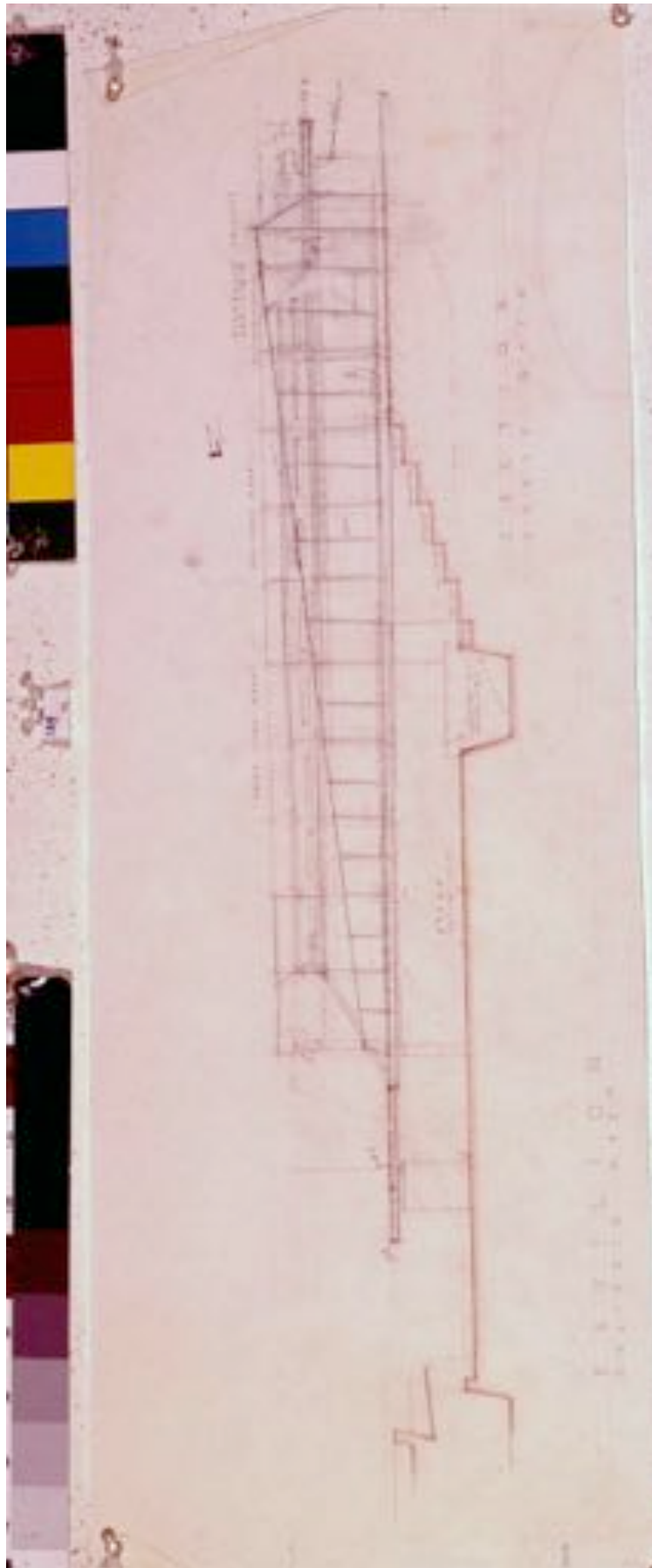


Figure B-99 - Pavilion Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

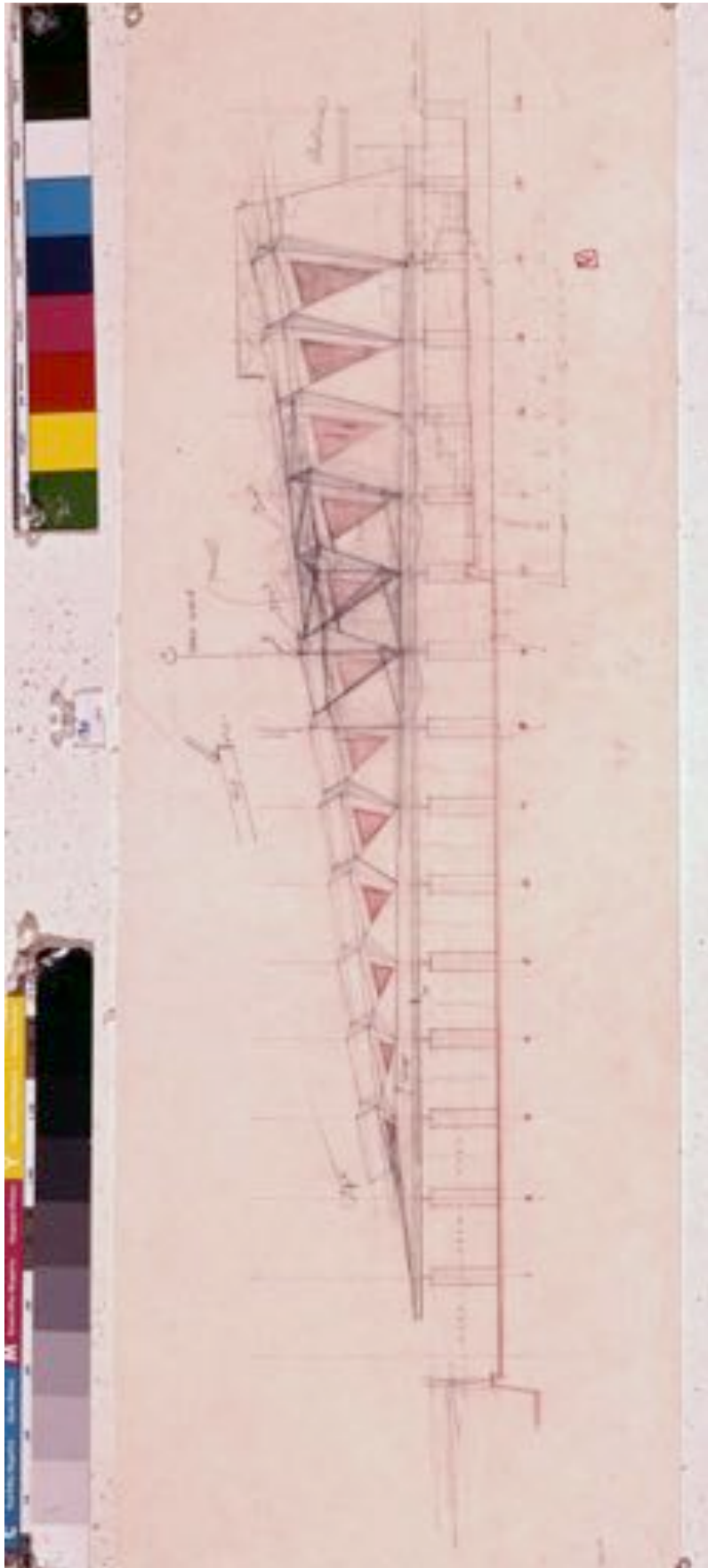


Figure B-100 - Pavilion Roof Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

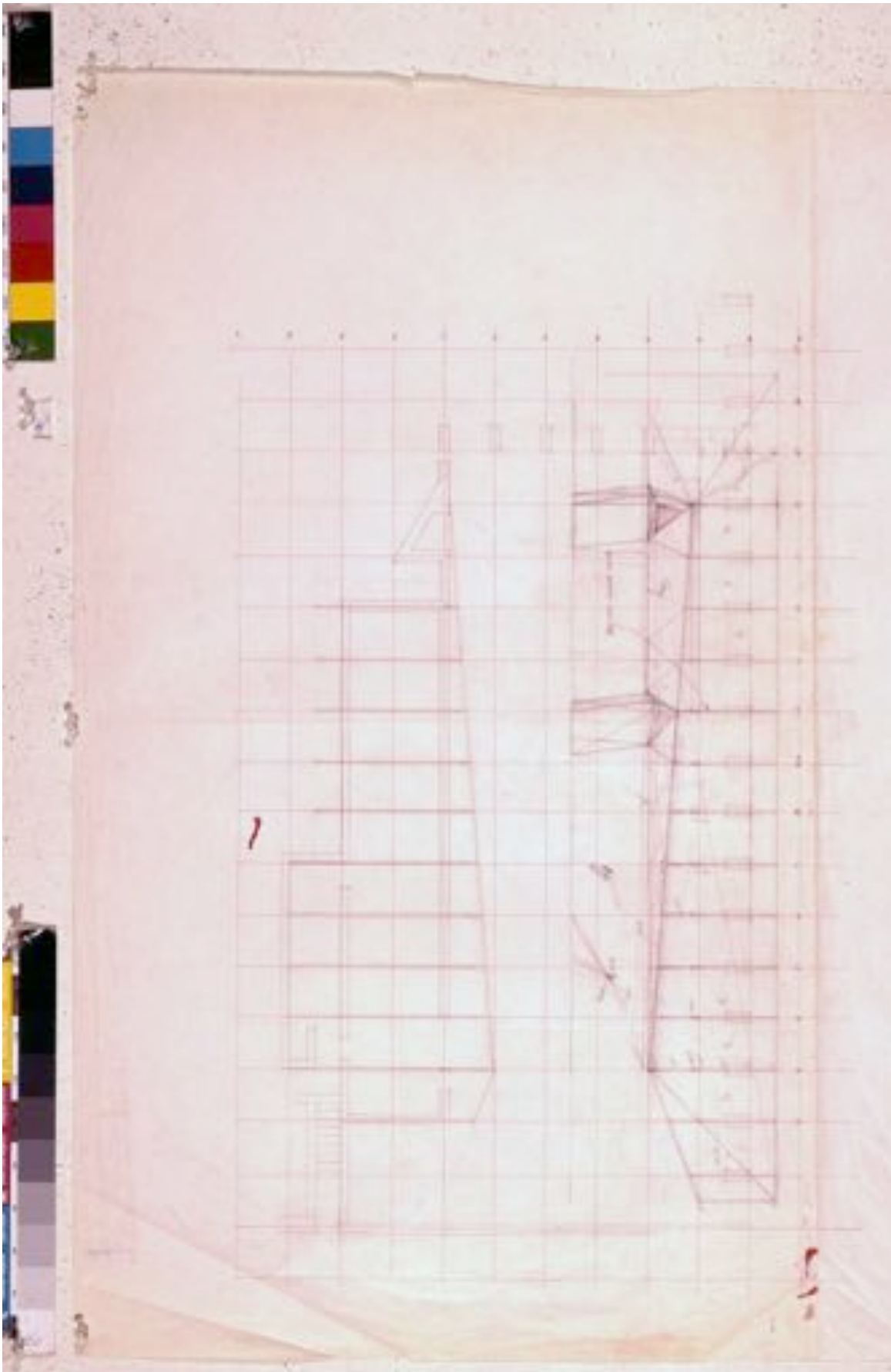


Figure B-101 - Pavilion Roof Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

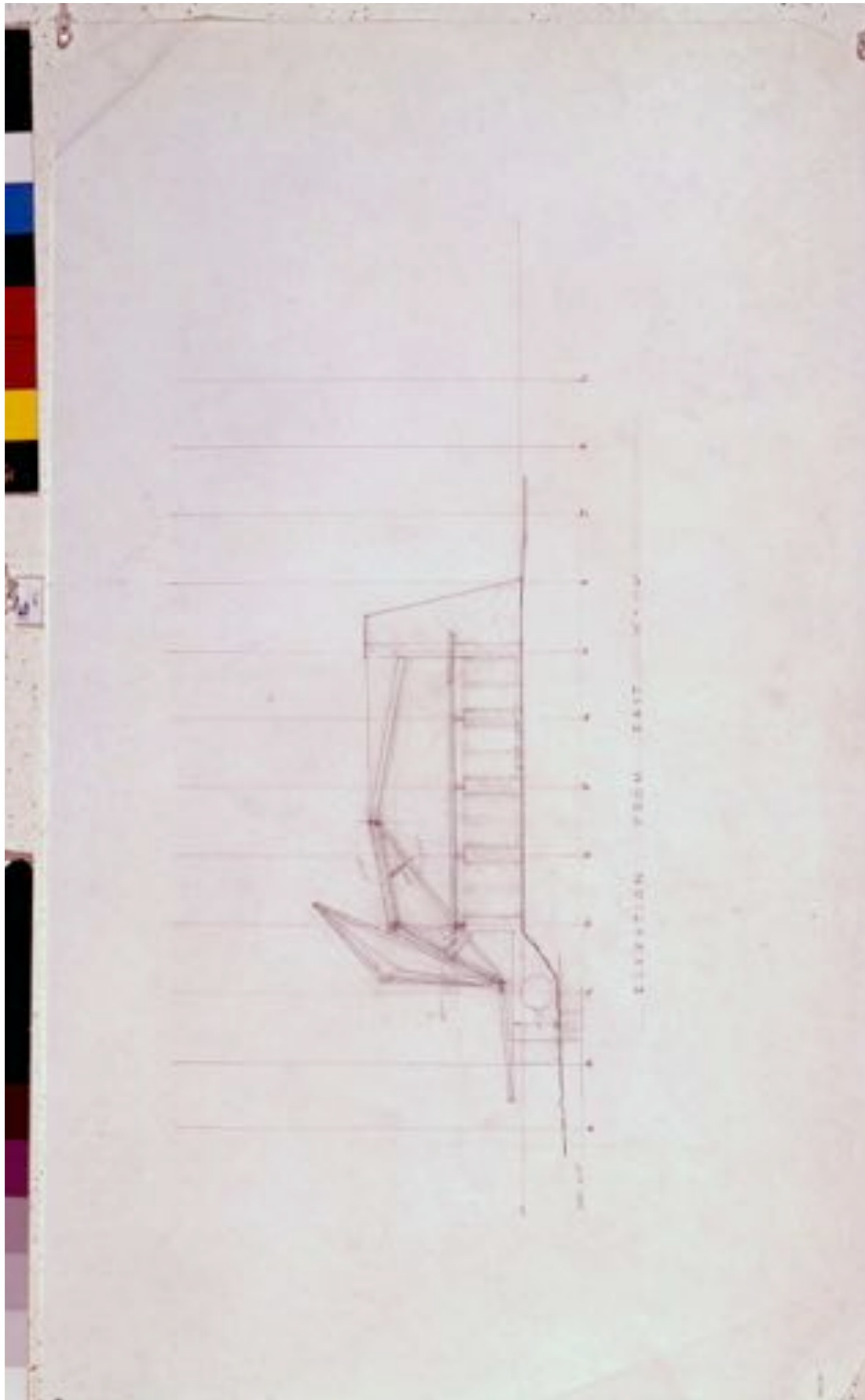


Figure B-102 - Pavilion Roof Open (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

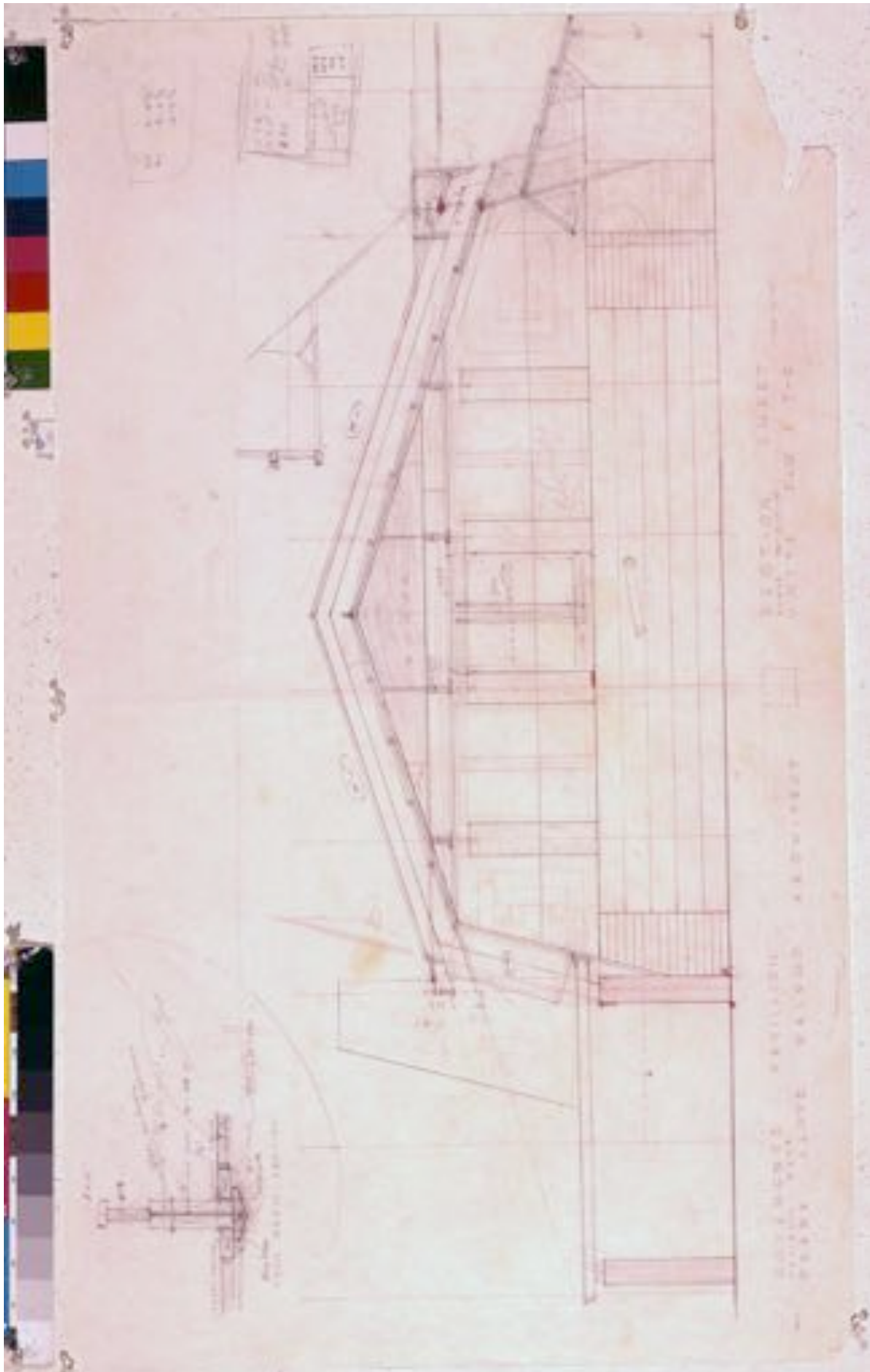


Figure B-103 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-104 - Pavilion Fireplace (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

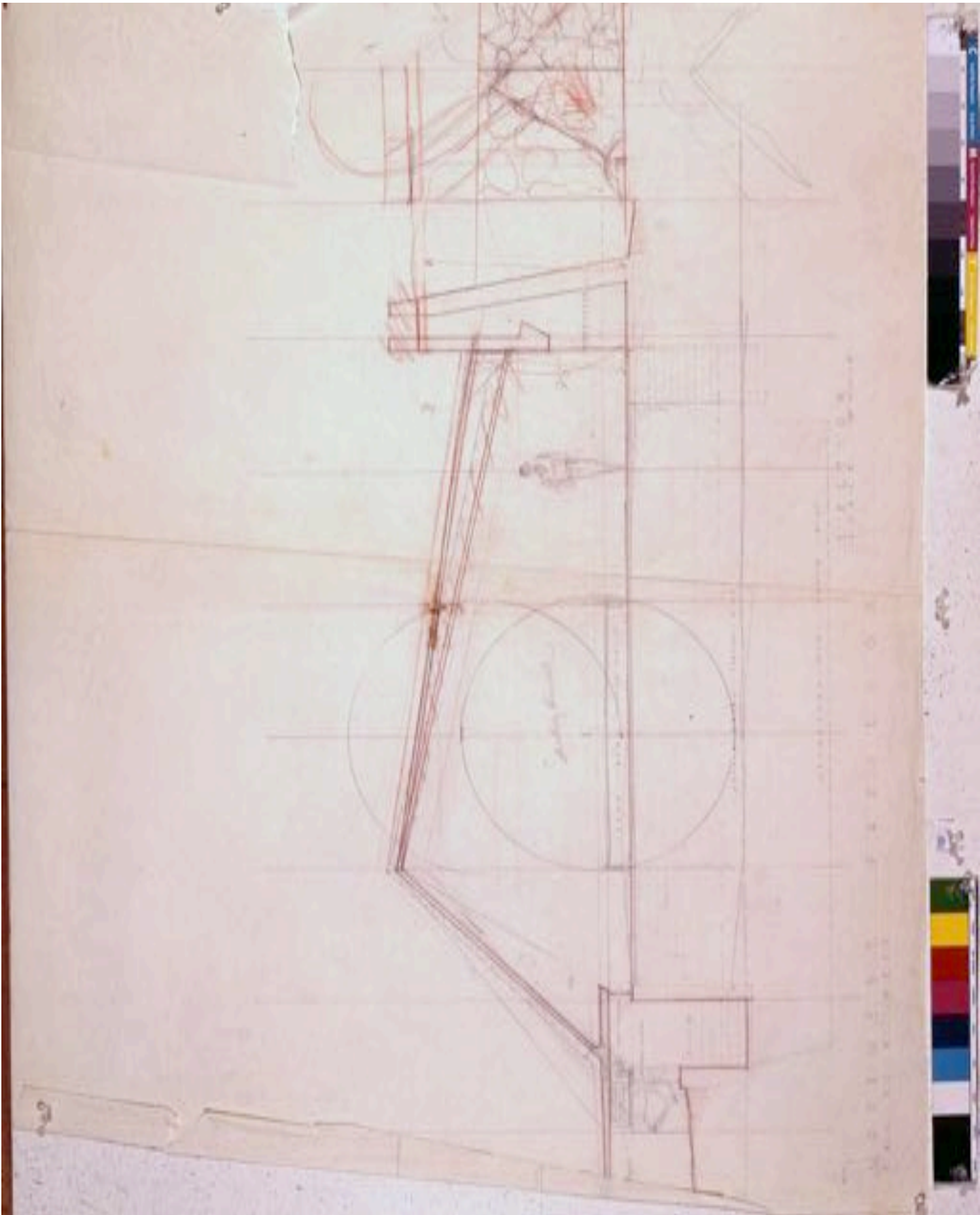


Figure B-105 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

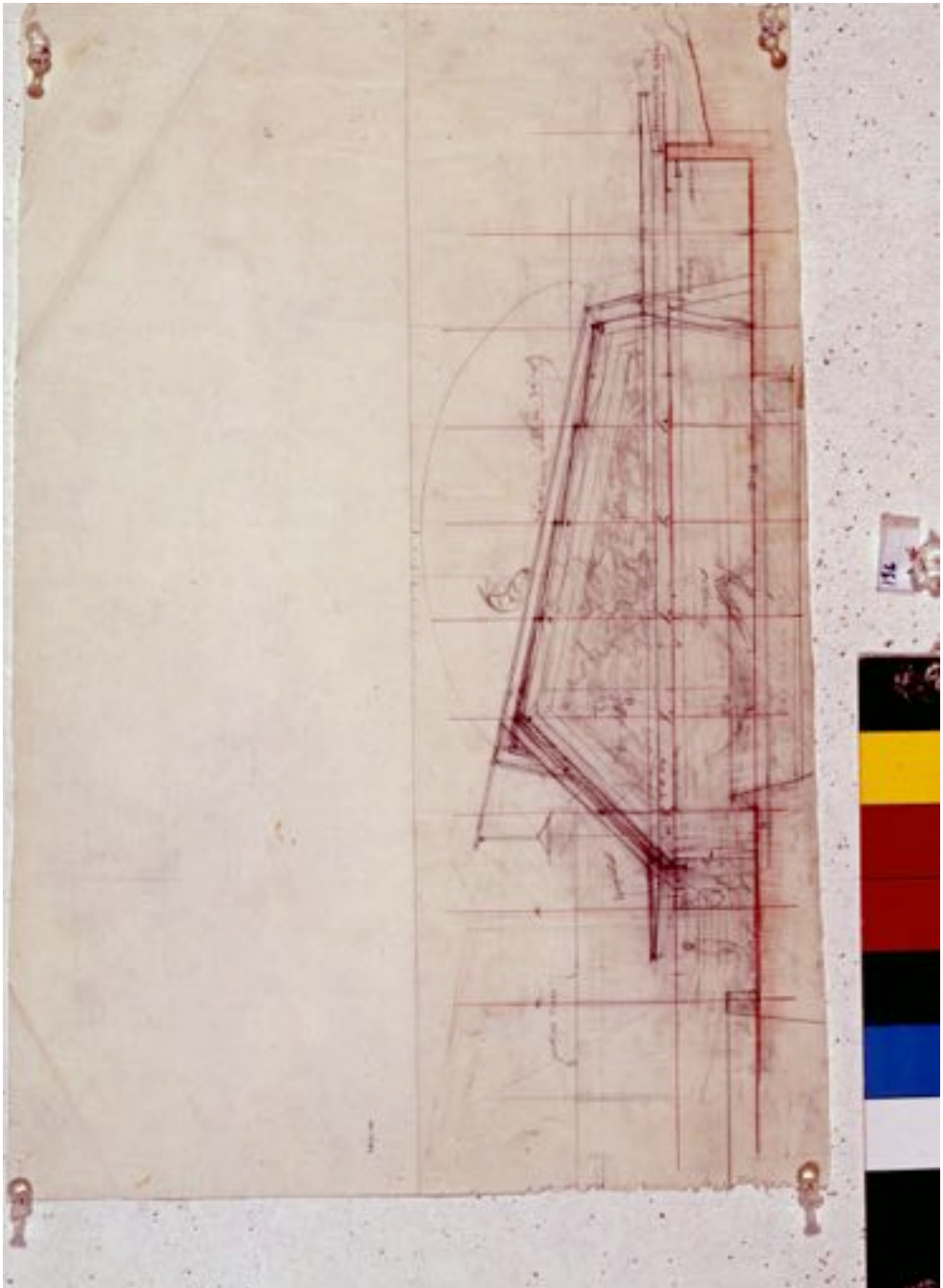


Figure B-106 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

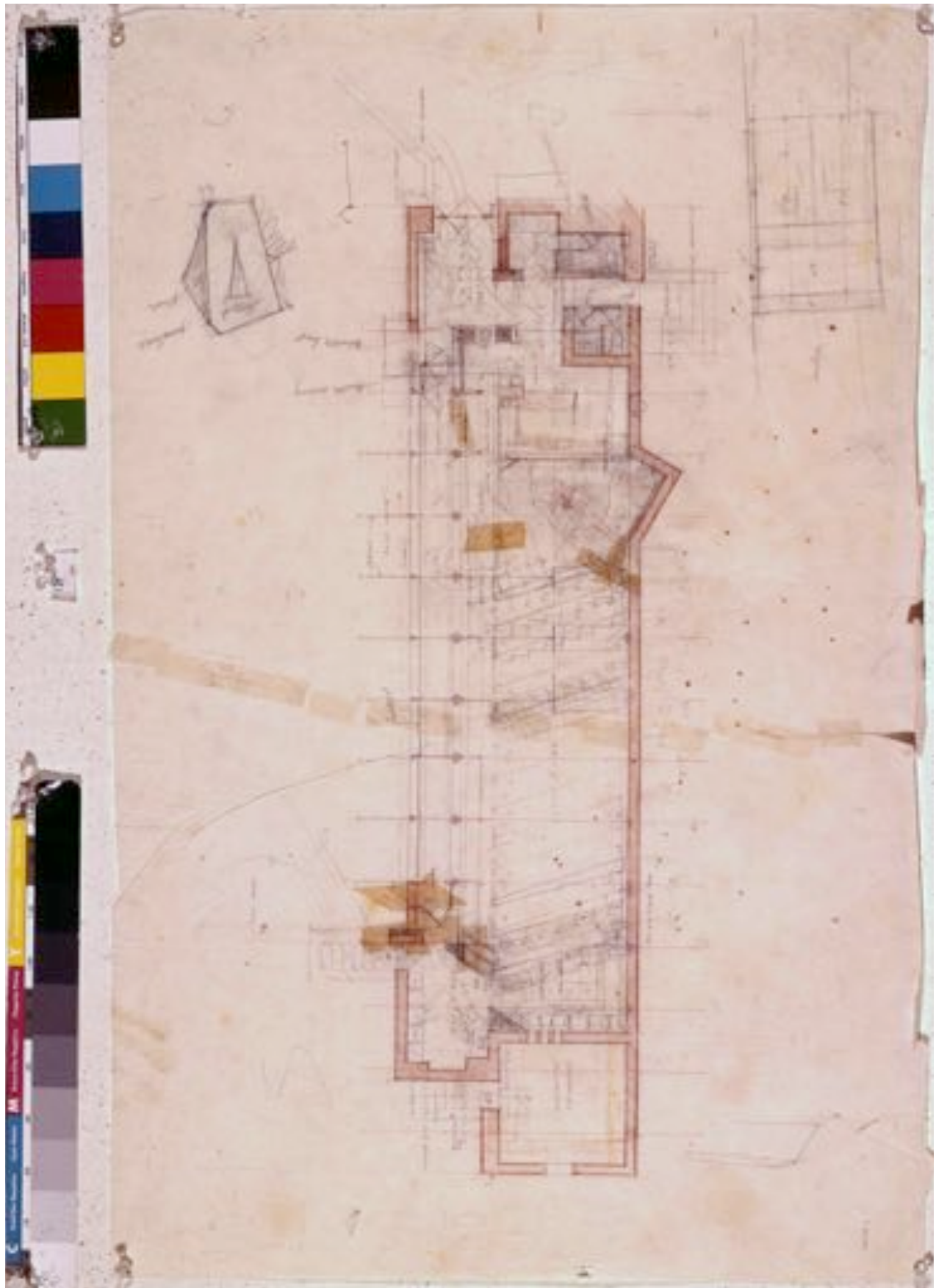


Figure B-107 - Cabaret Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

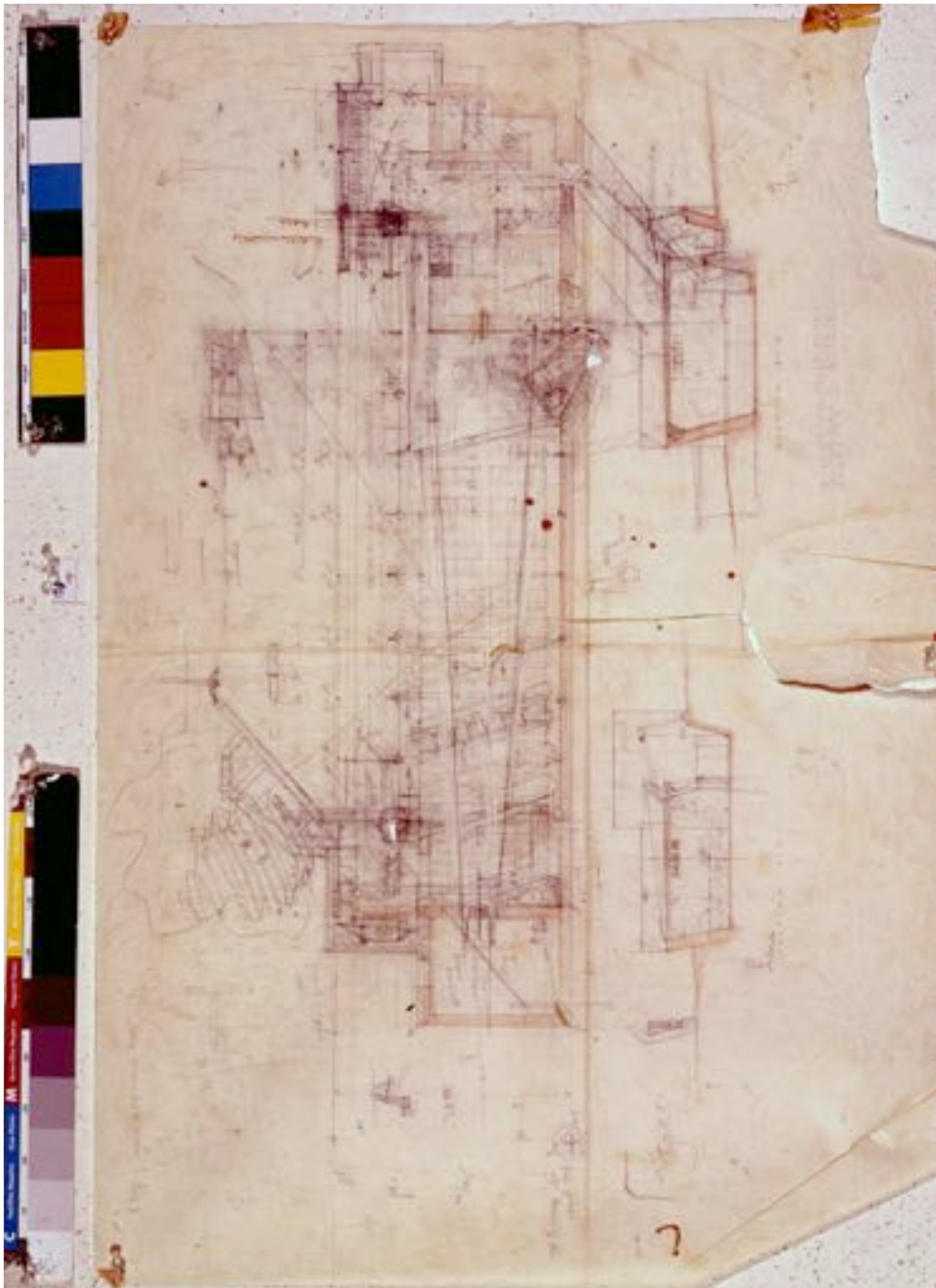


Figure B-108 - Cabaret Plan/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

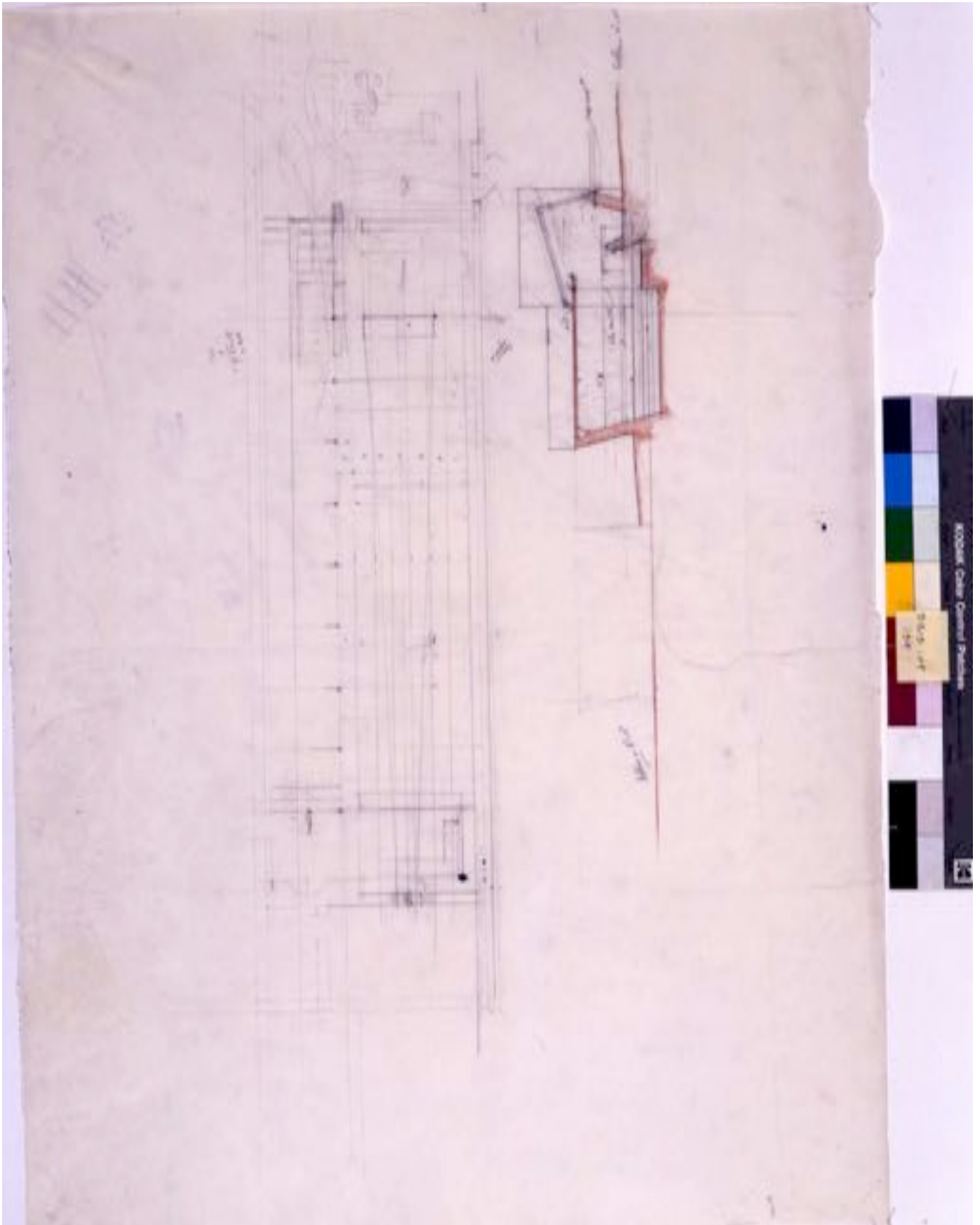


Figure B-109 - Cabaret Plan/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

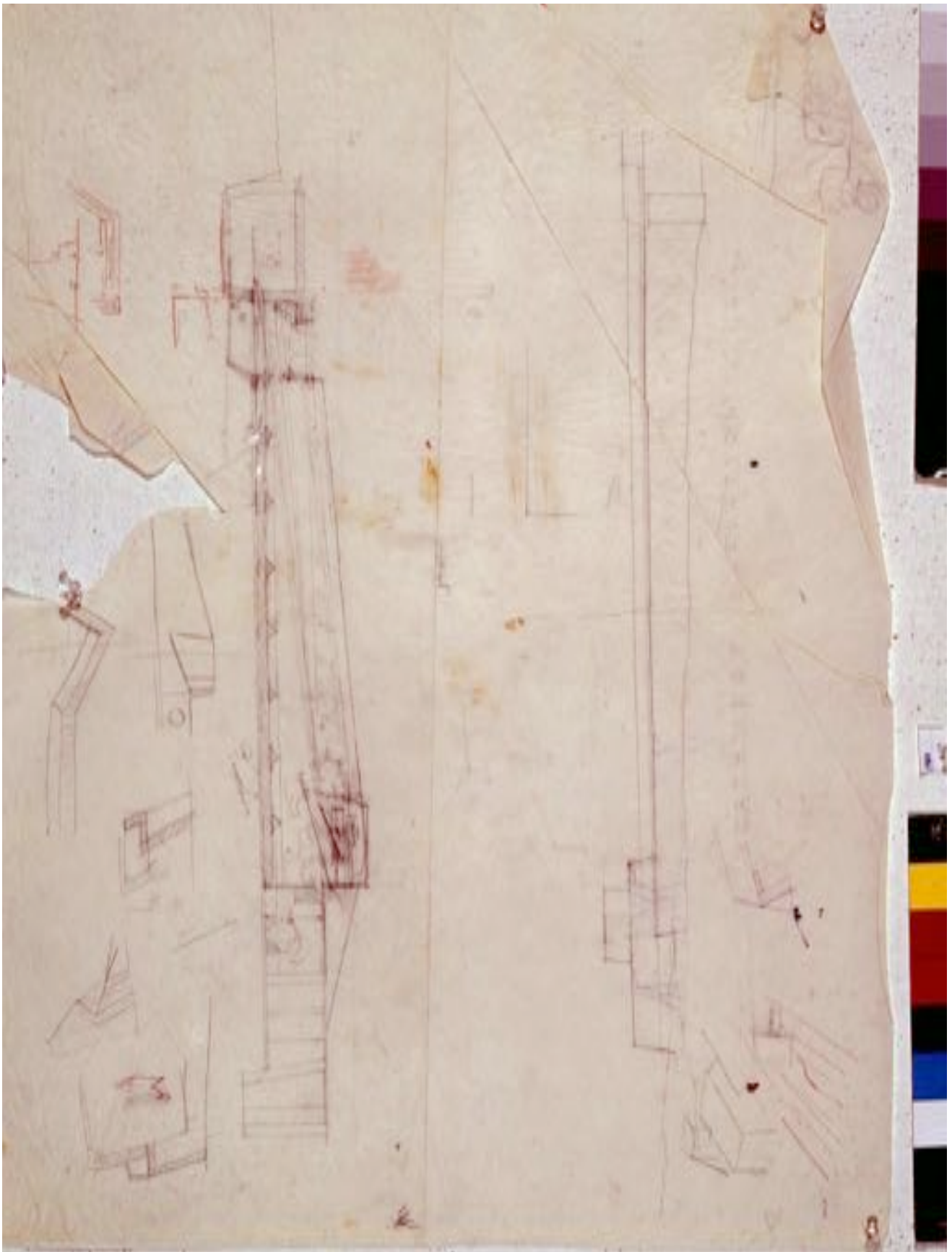


Figure B-110 - Cabaret Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

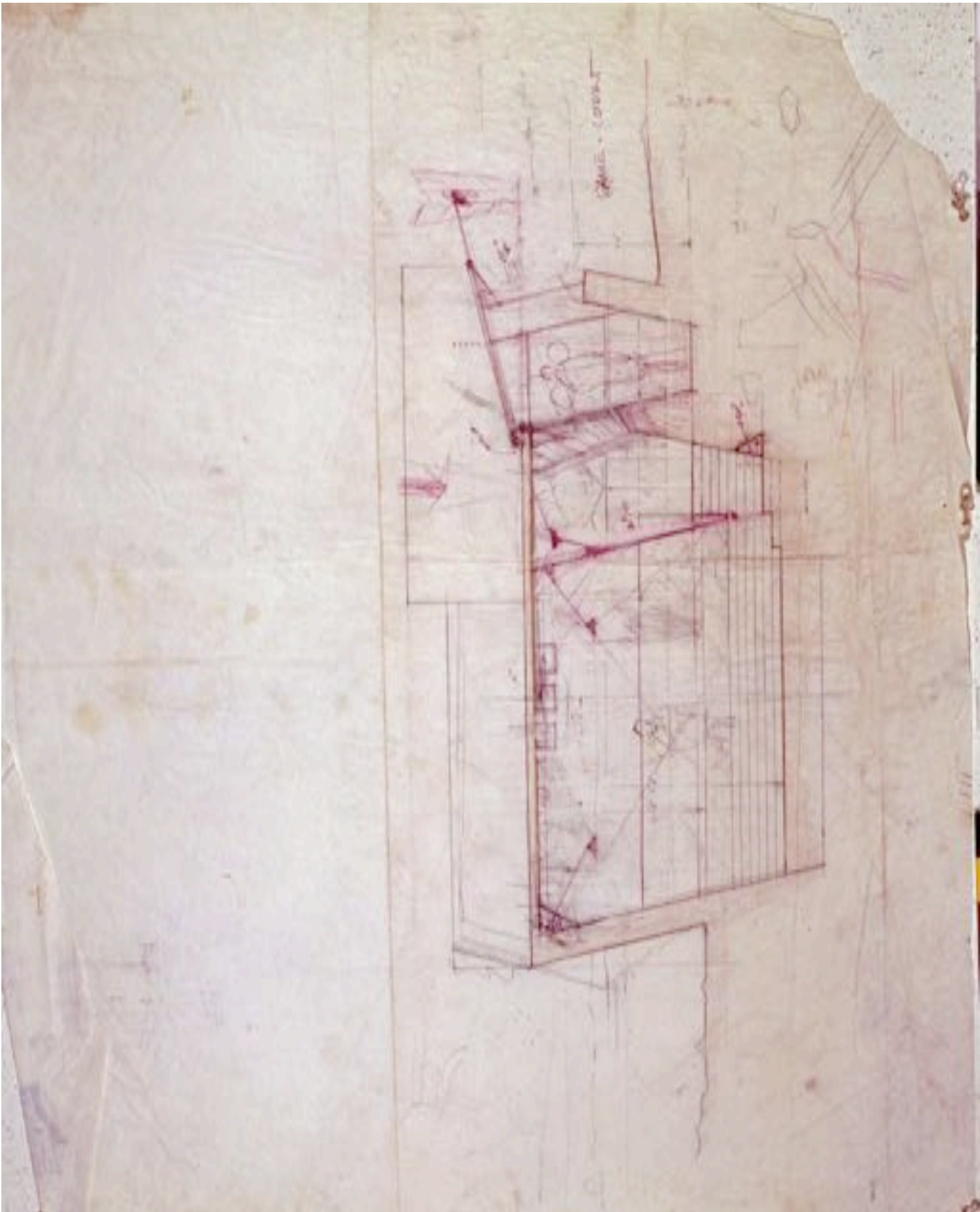


Figure B-111 - Cabaret Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

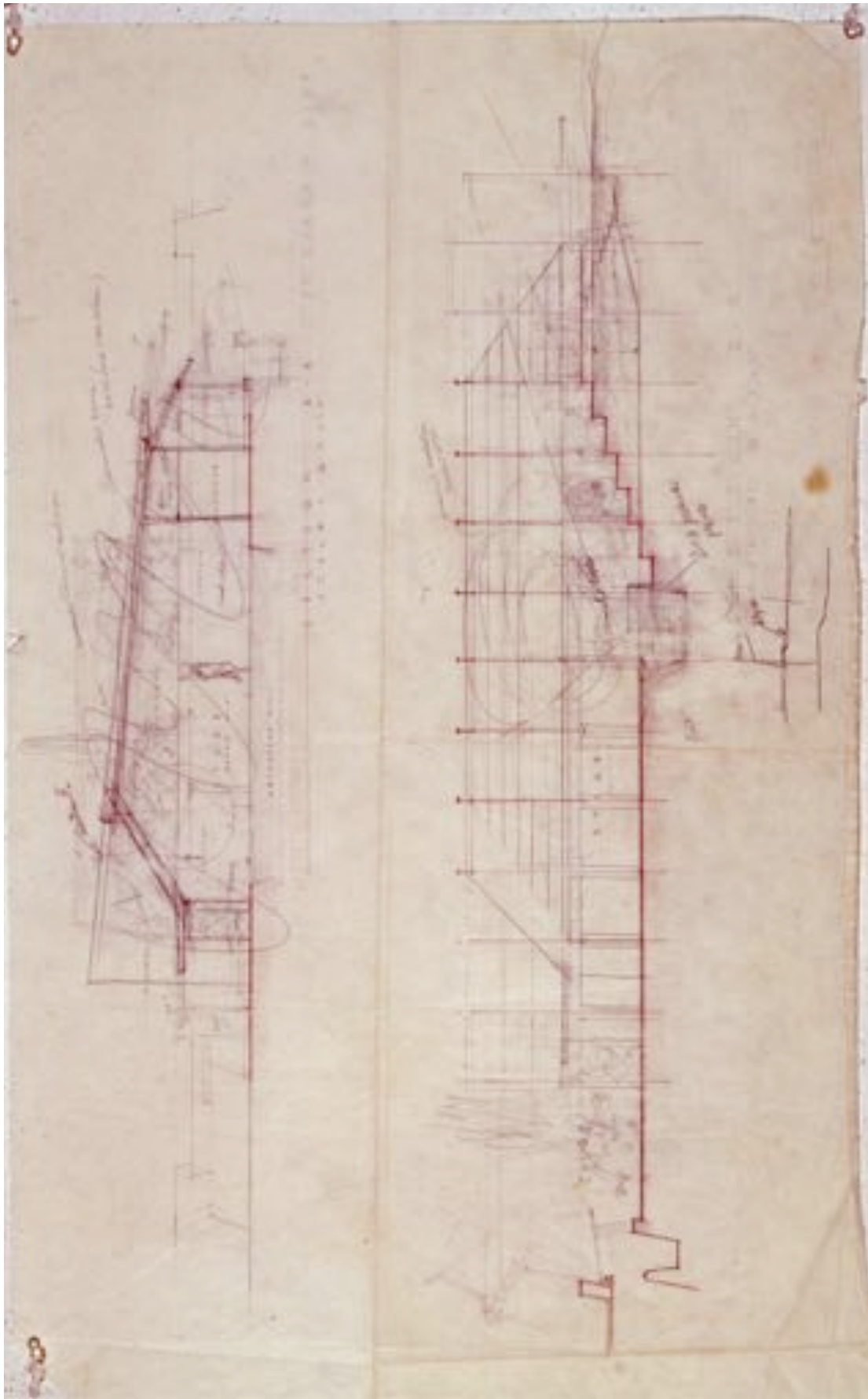


Figure B-112 - Pavilion Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

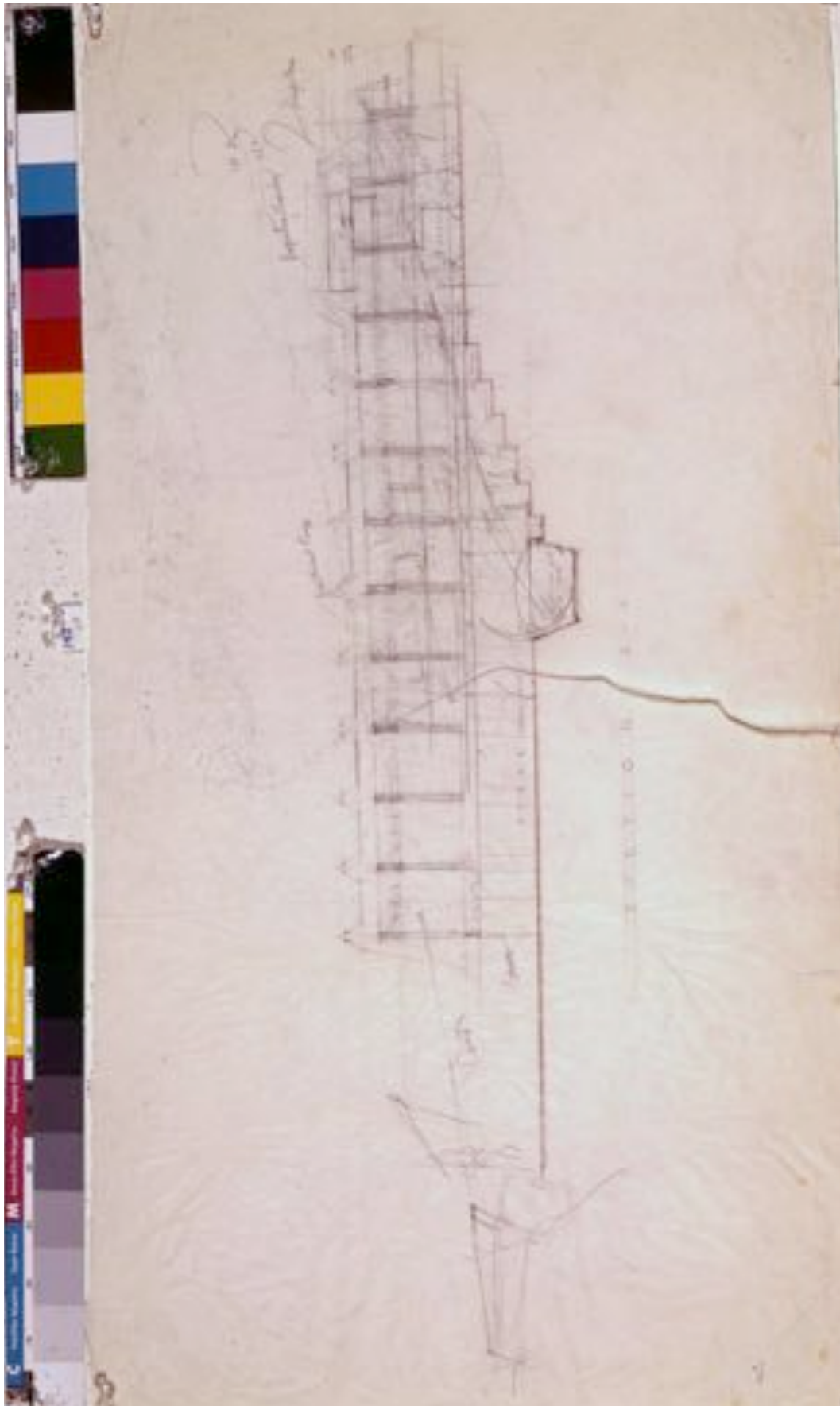


Figure B-113 - Pavilion Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

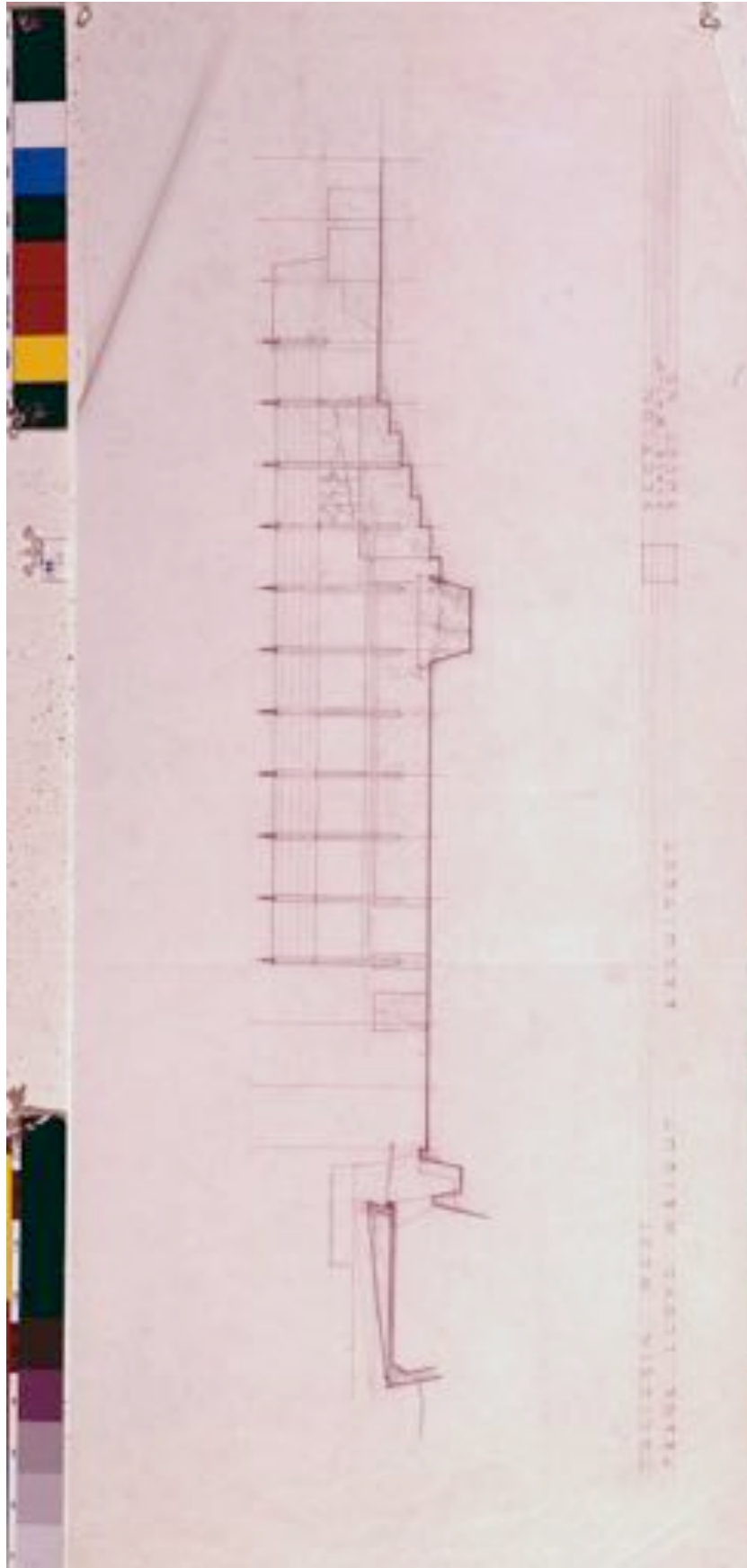


Figure B-114 - Pavilion Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

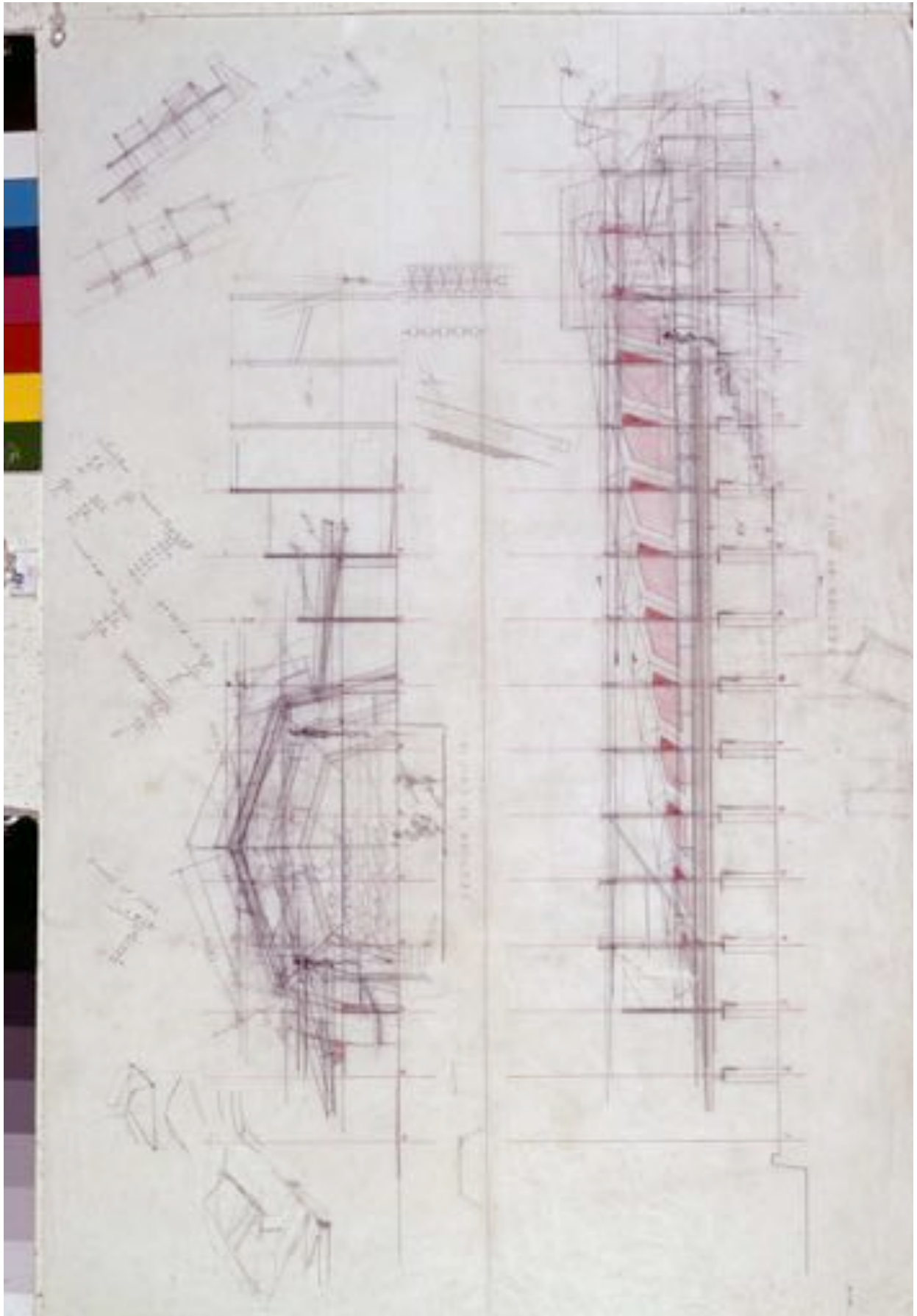


Figure B-115 - Pavilion Roof Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-116 - Pavilion Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

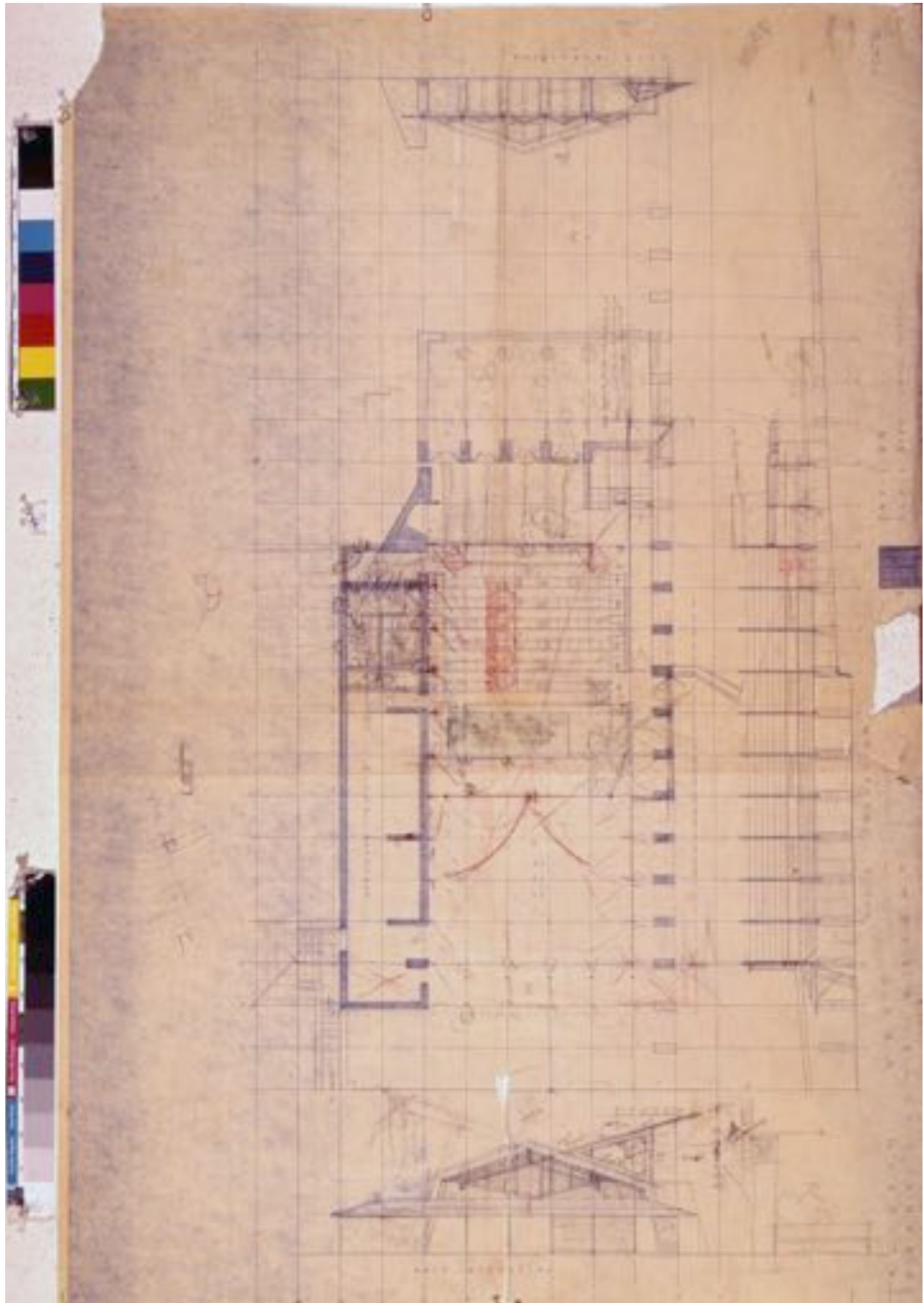


Figure B-117 - Pavilion Plan & 3 Elevations (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

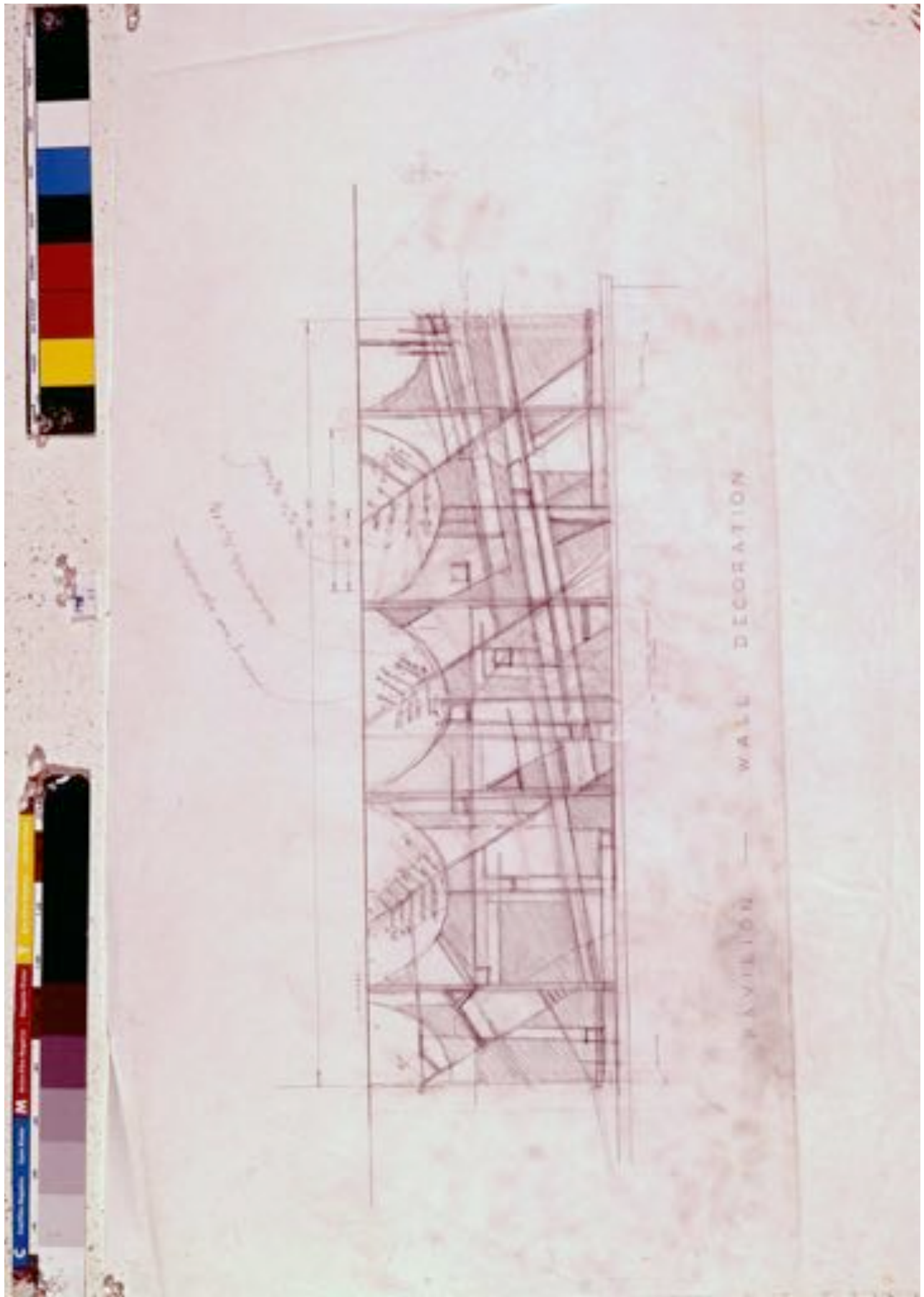


Figure B-118 - Pavilion Wall Decoration (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

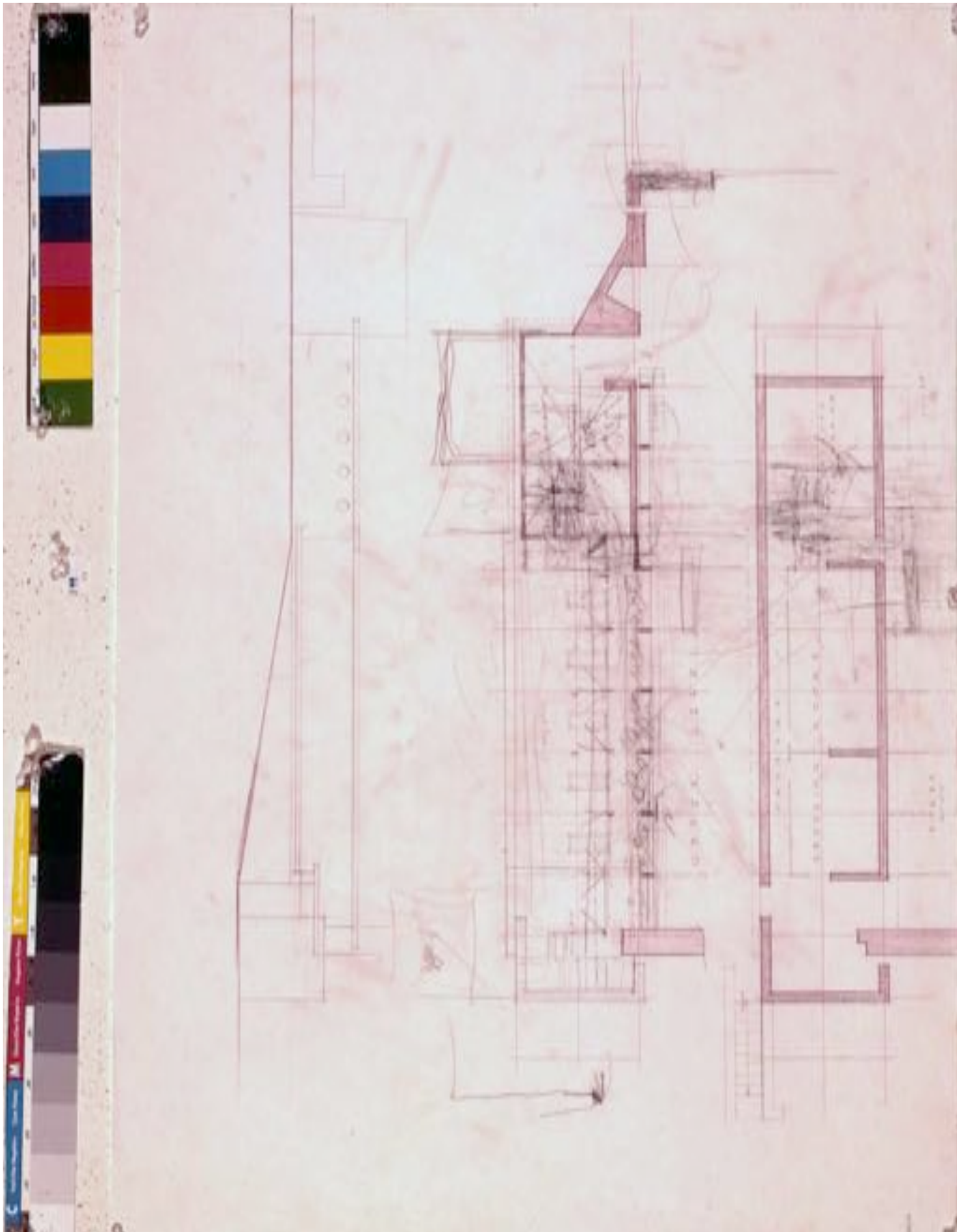


Figure B-119 - Pavilion Plan/Elevation (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

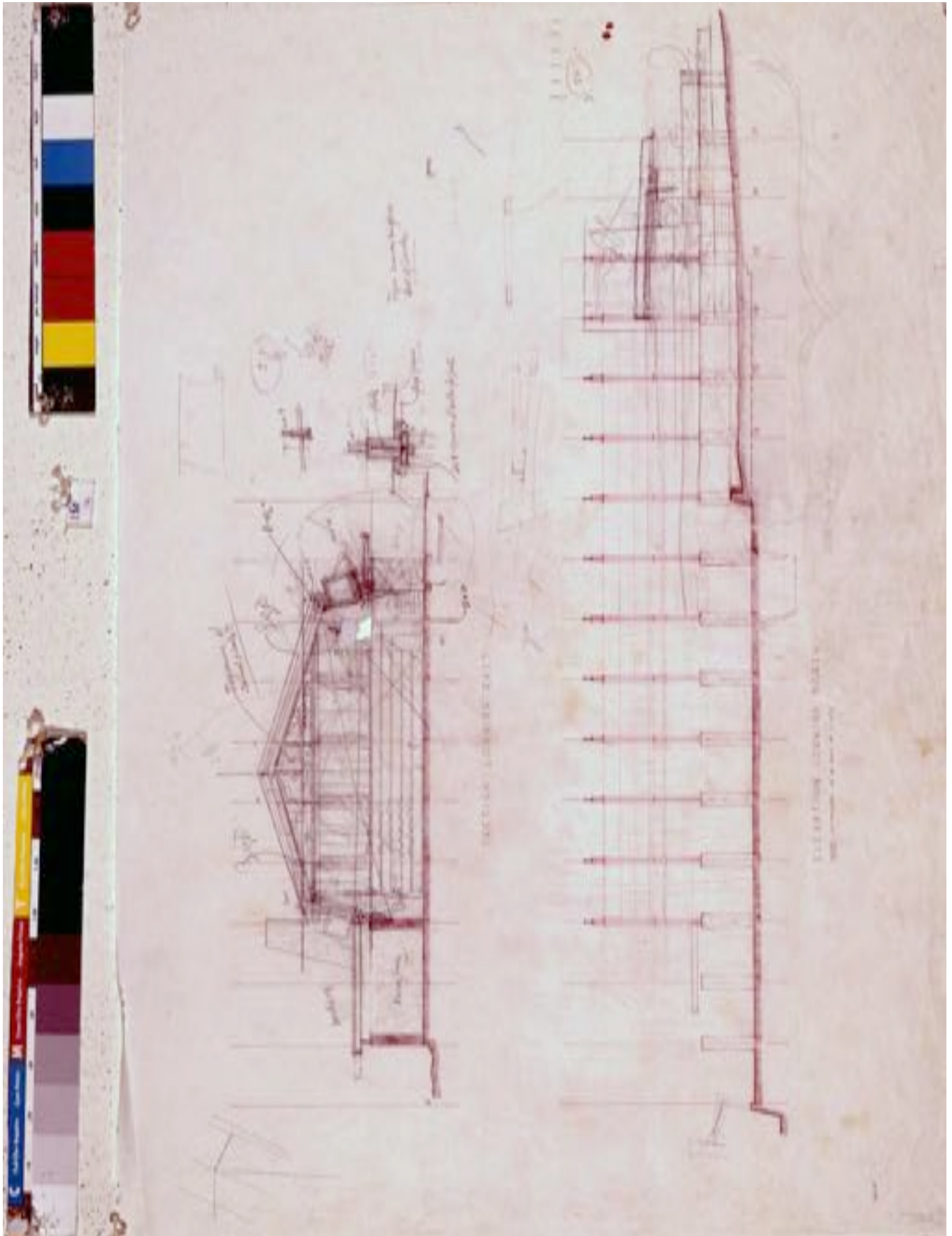


Figure B-120 - Pavilion Elevation & Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

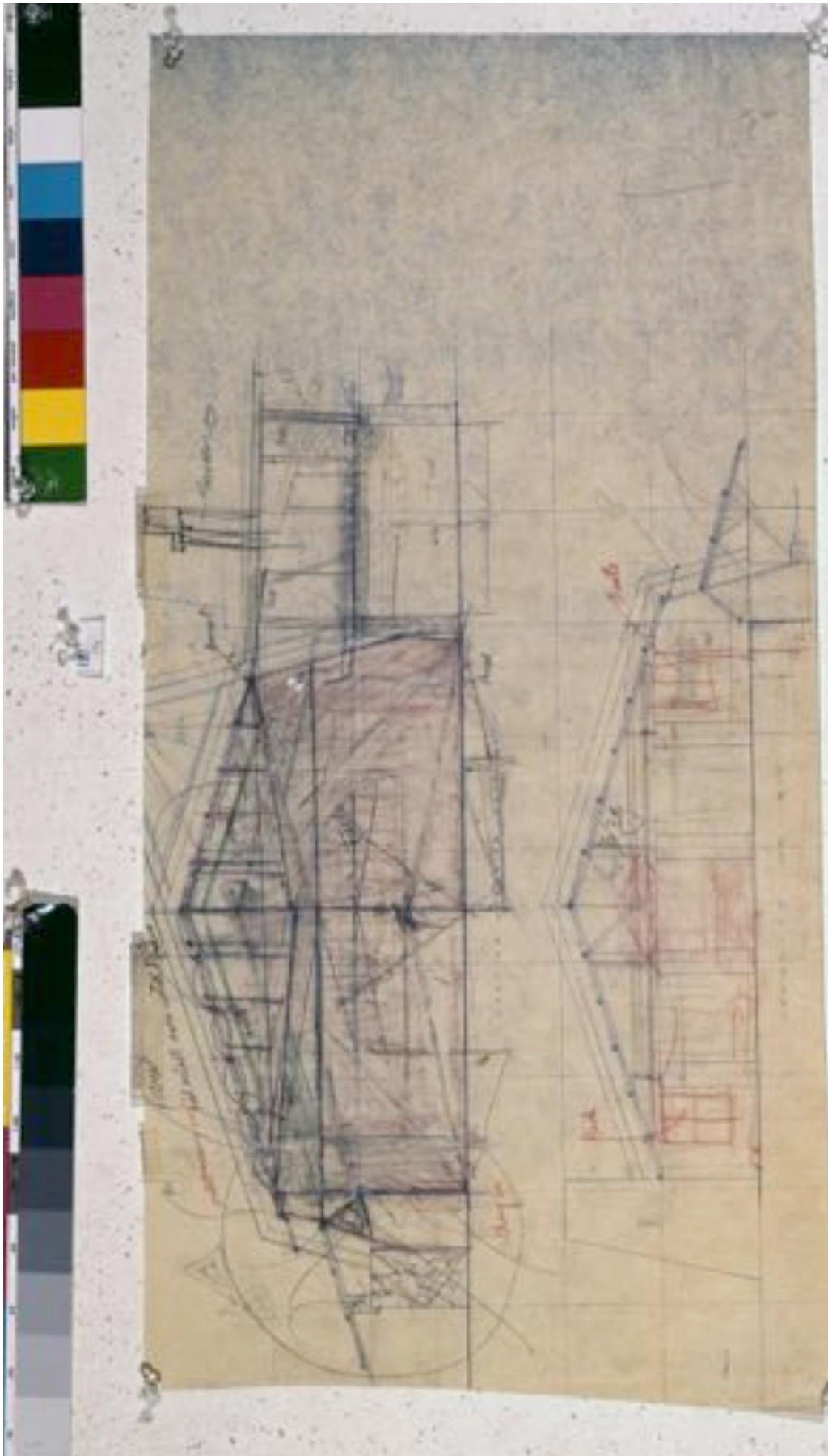


Figure B-121 - Pavilion Elevation/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

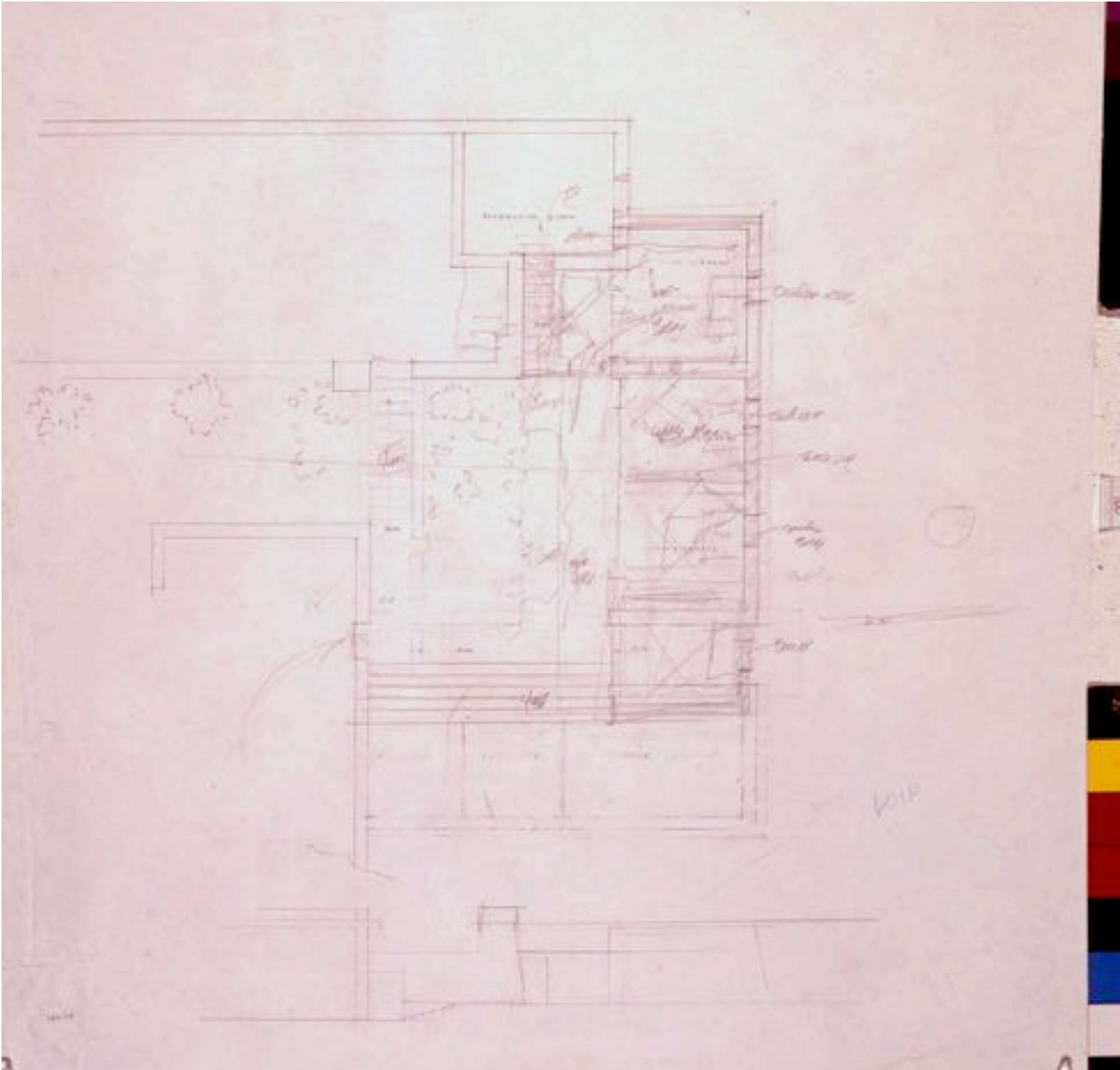


Figure B-122 - Pavilion Music Storage (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

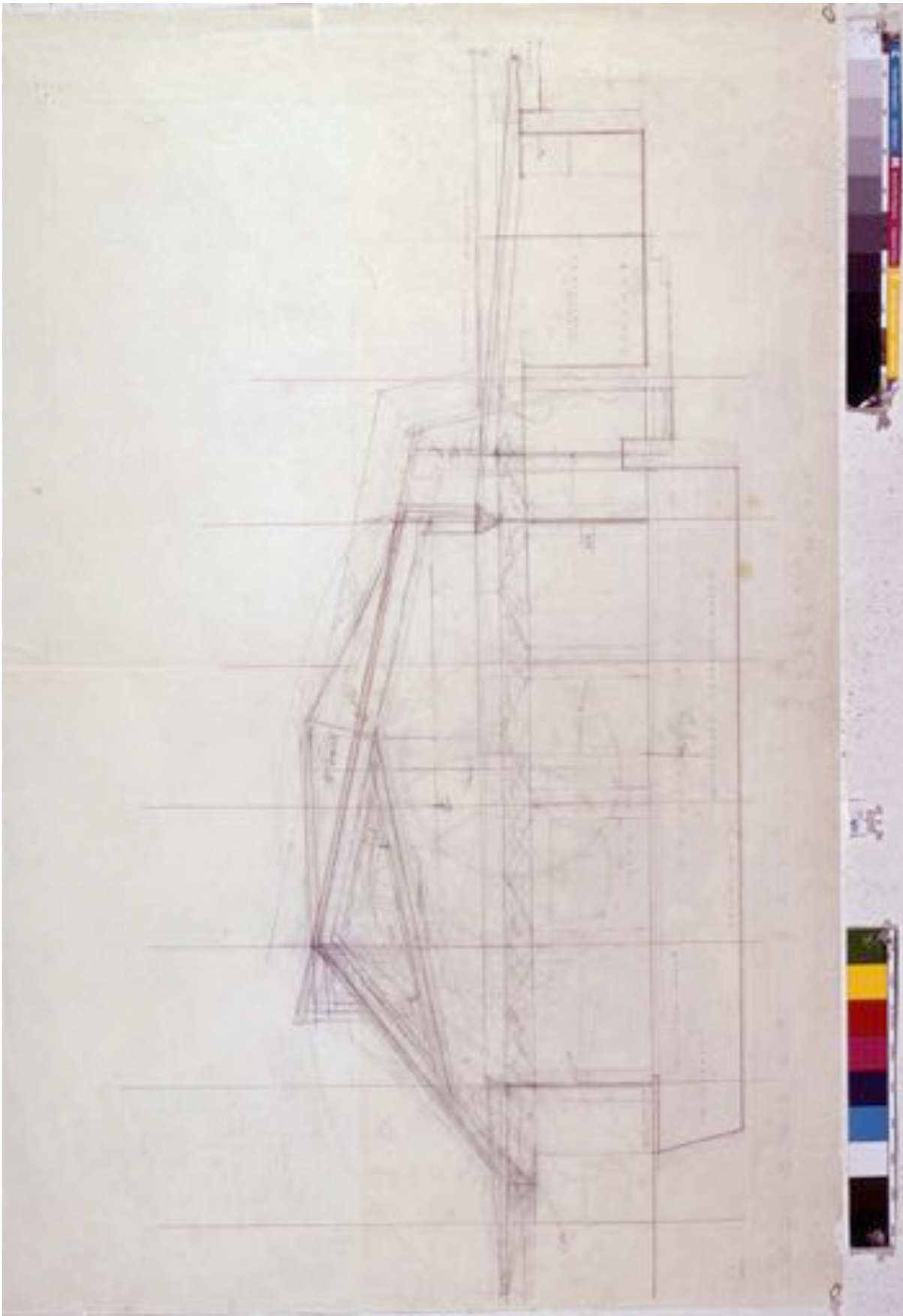


Figure B-123 - Pavilion Stage Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

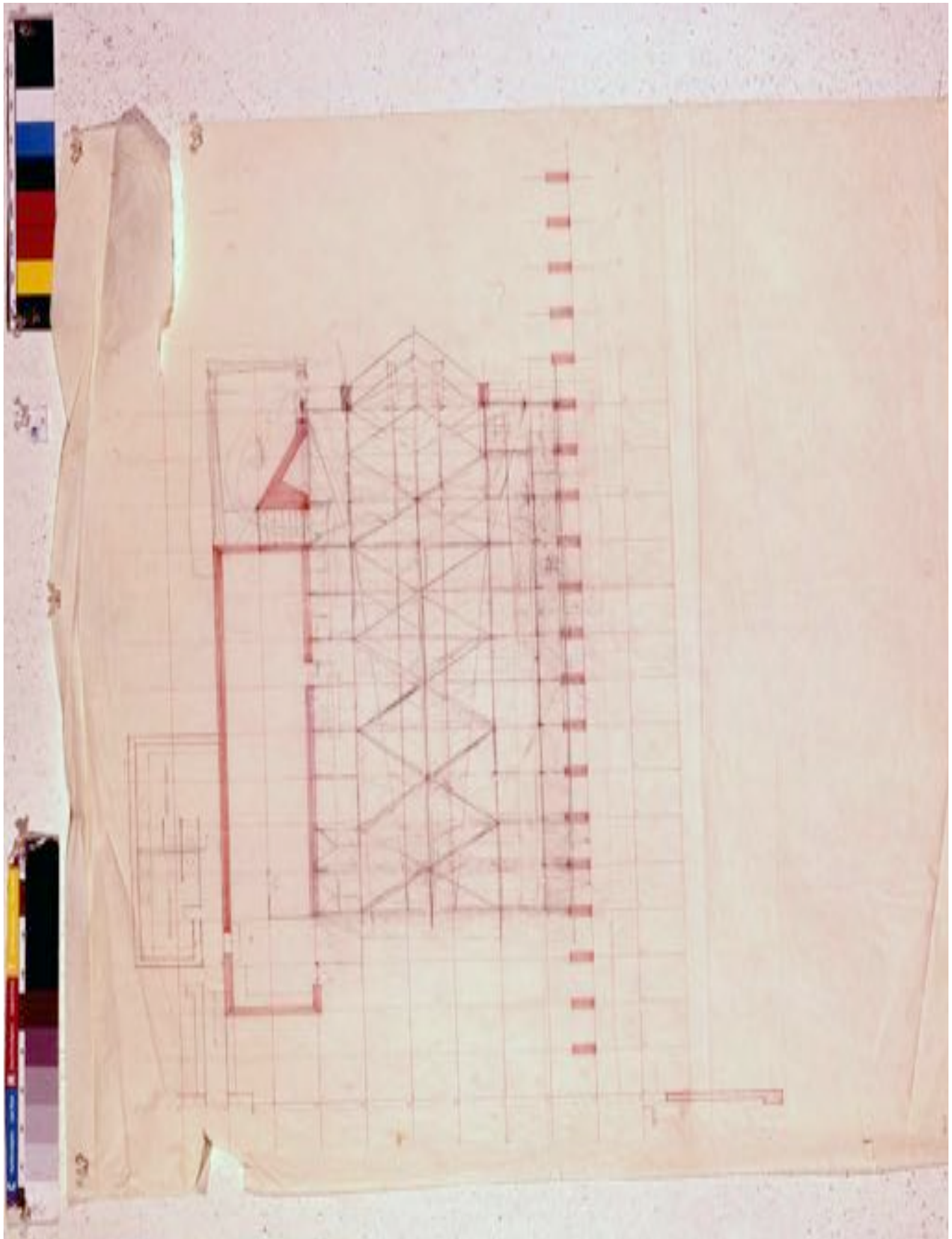


Figure B-124 - Pavilion Roof Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

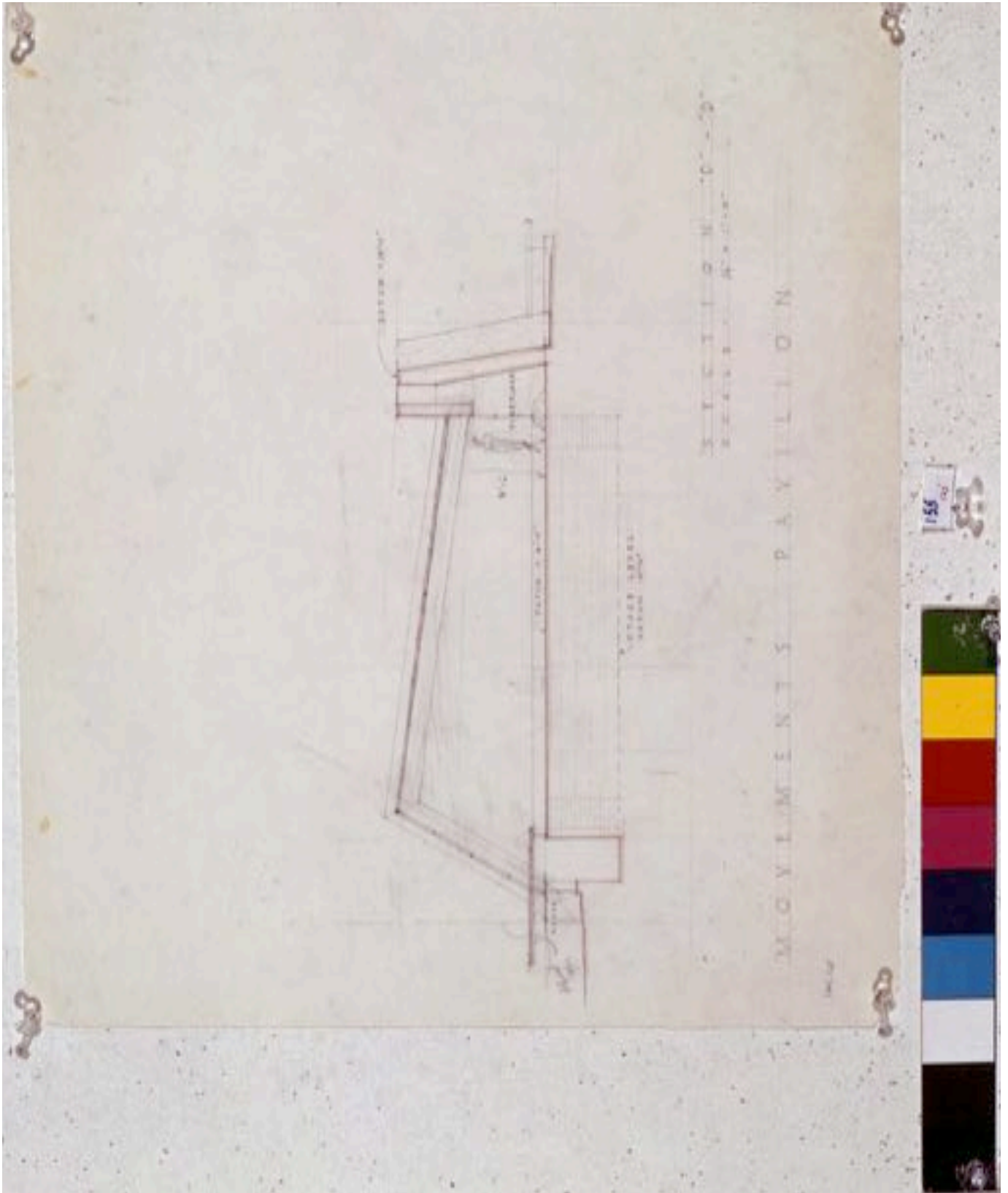


Figure B-125 - Pavilion Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

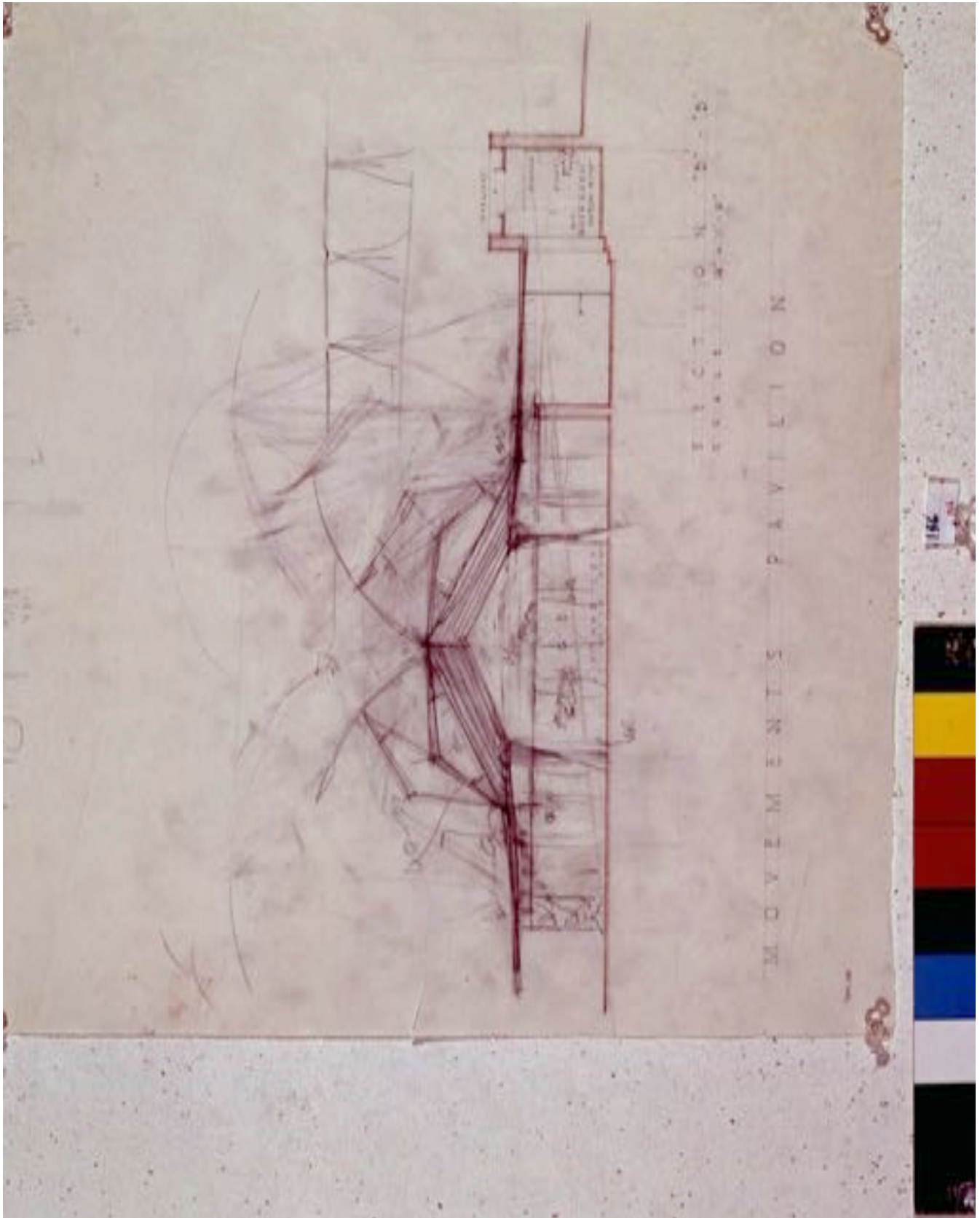


Figure B-126 - Pavilion Stage Roof (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

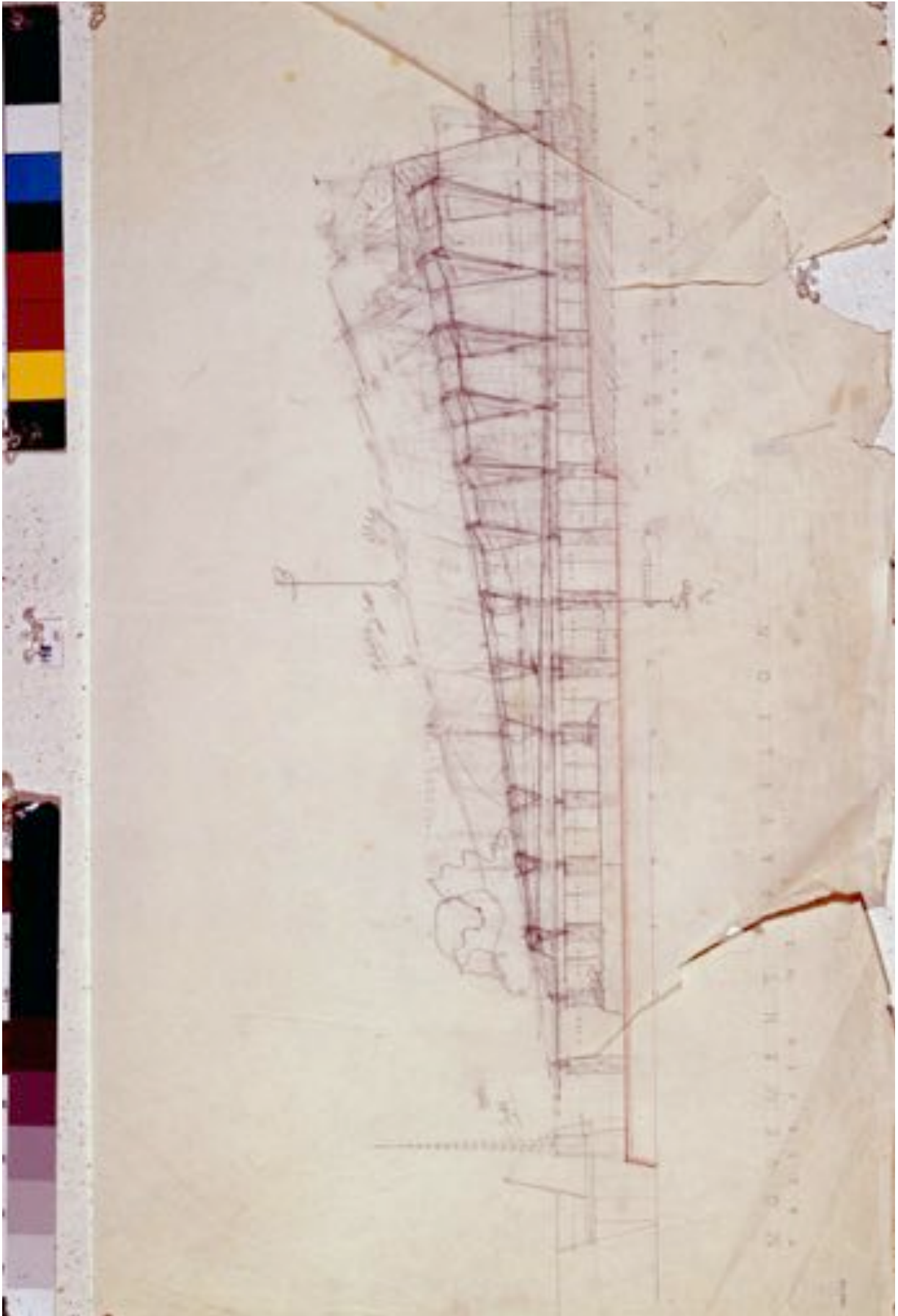


Figure B-128 - Pavilion Concrete Roof (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

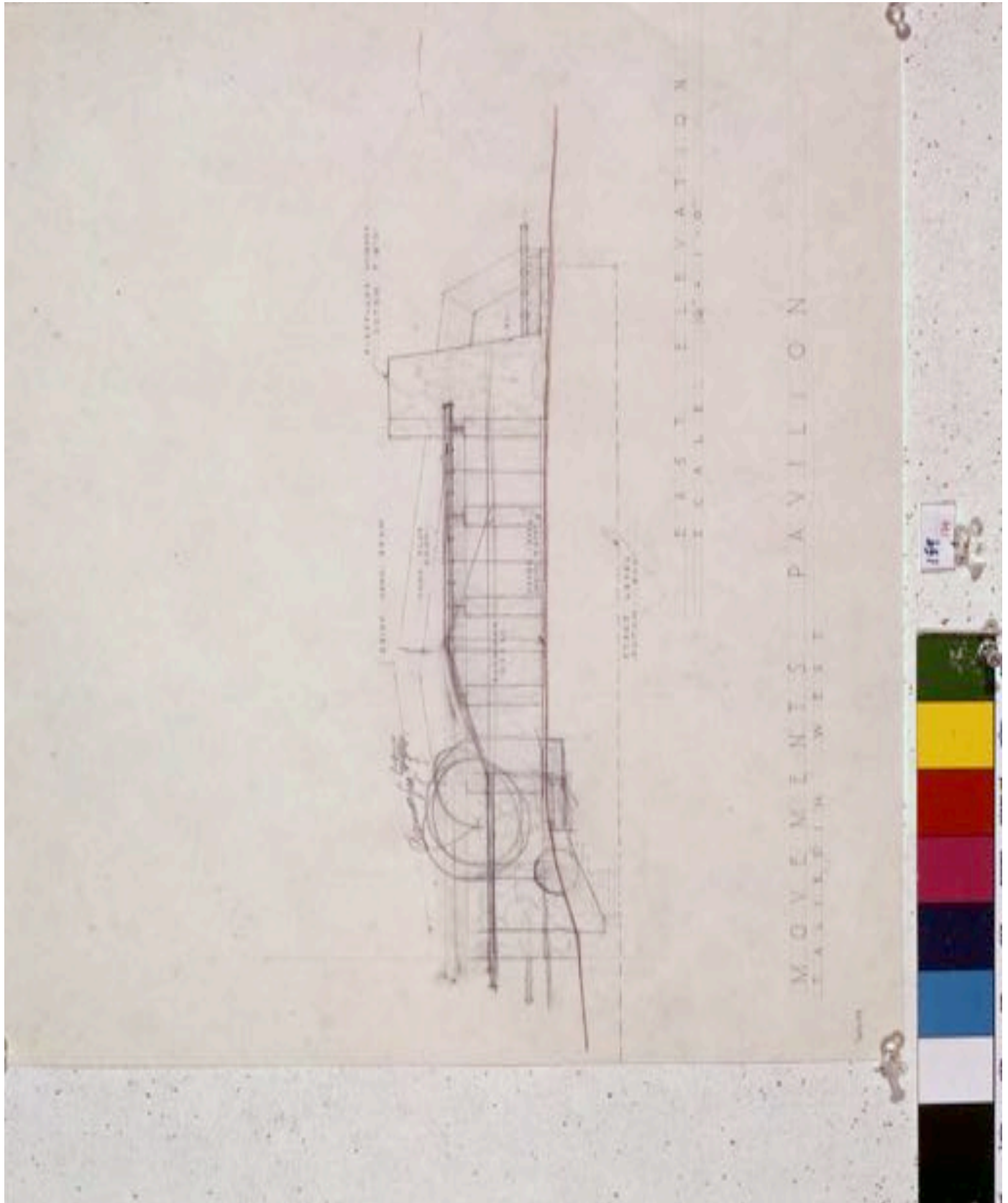


Figure B-129 - Pavilion Cross Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

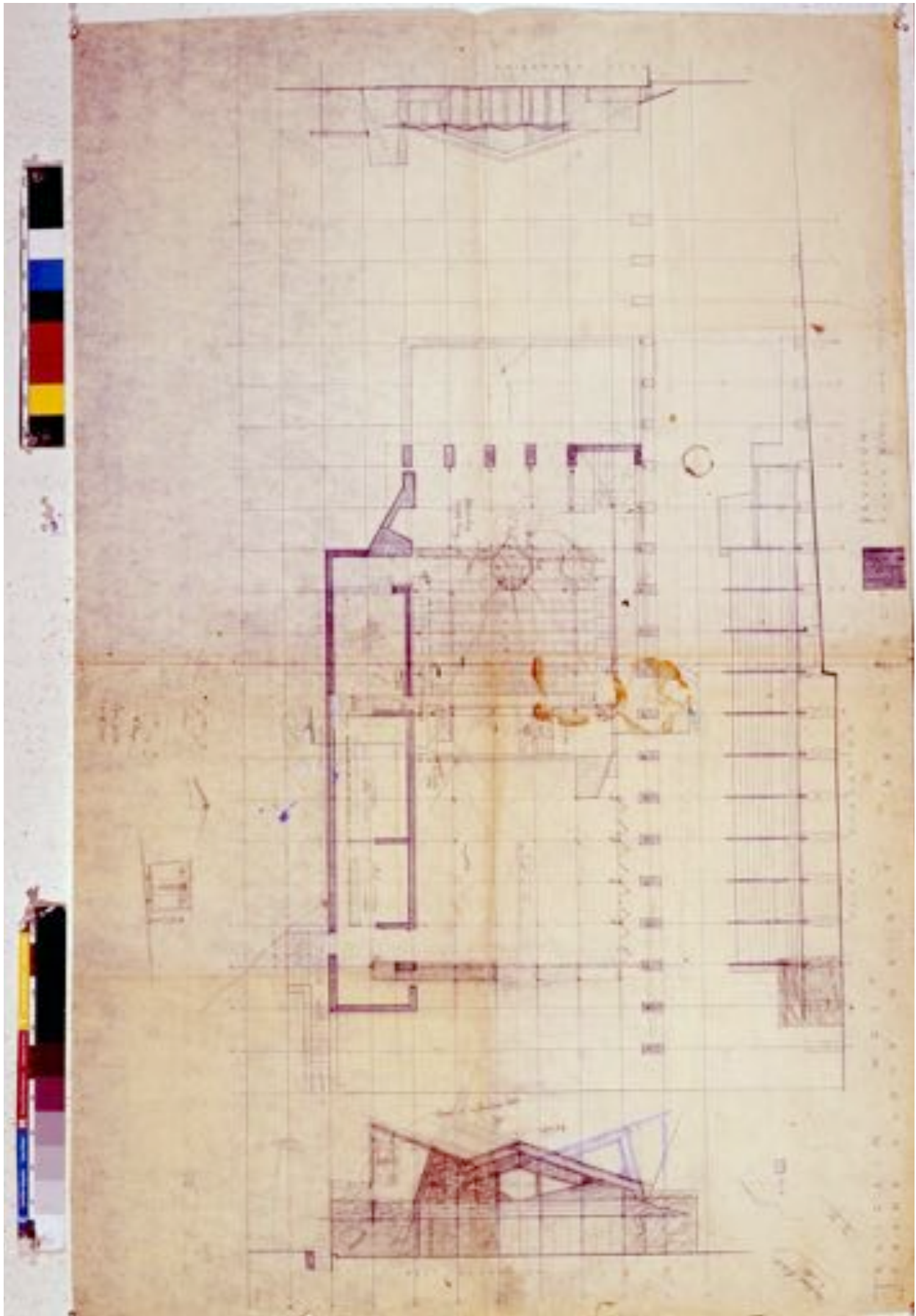


Figure B-130 - Pavilion Plan & Elevations (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

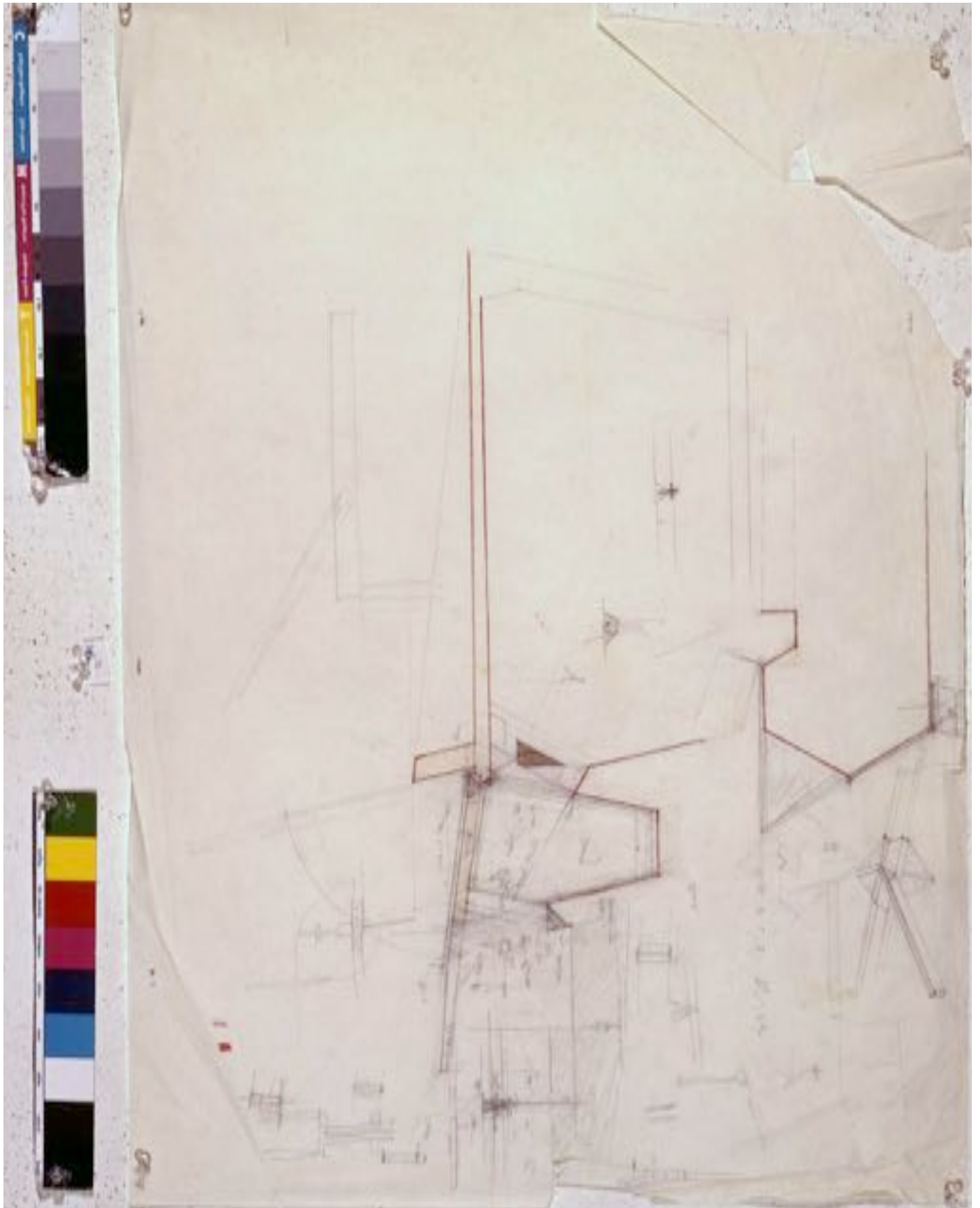


Figure B-131 - Cabaret Section Detail (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-132 - Taliesin West Master Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

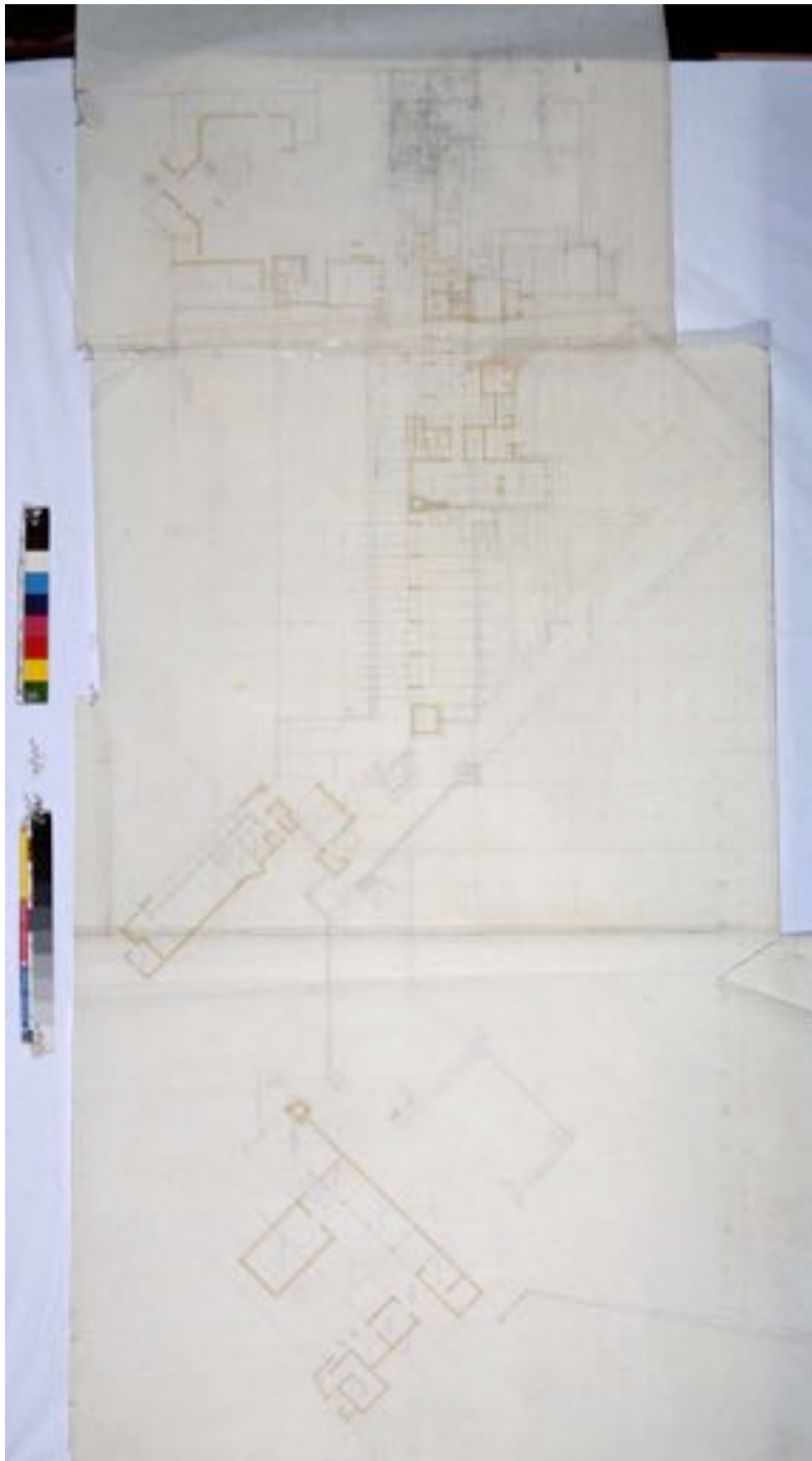


Figure B-134 - Master Plan with Cabaret (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-135 - Master Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

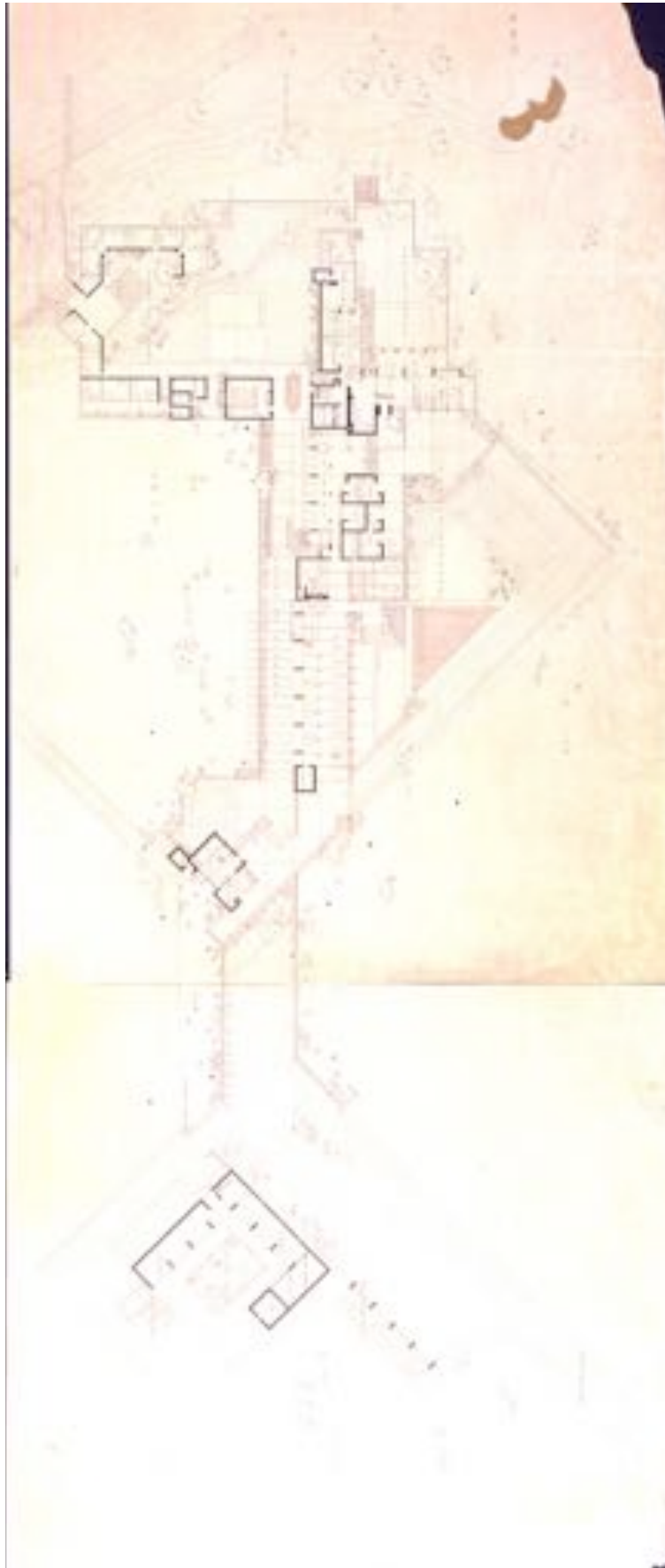


Figure B-136 - Master Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

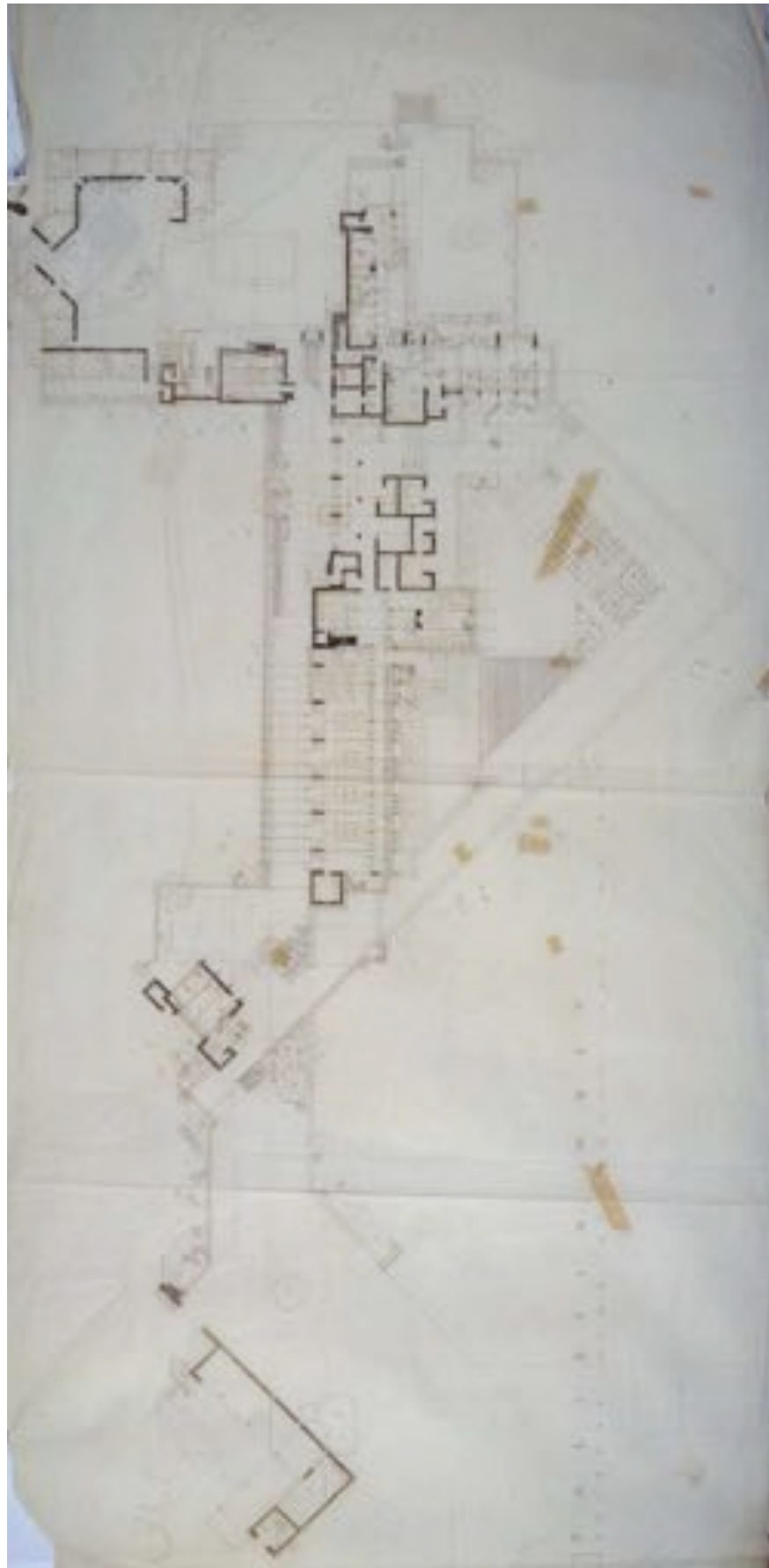


Figure B-137 - Master Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-138 - Master Plan Print (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

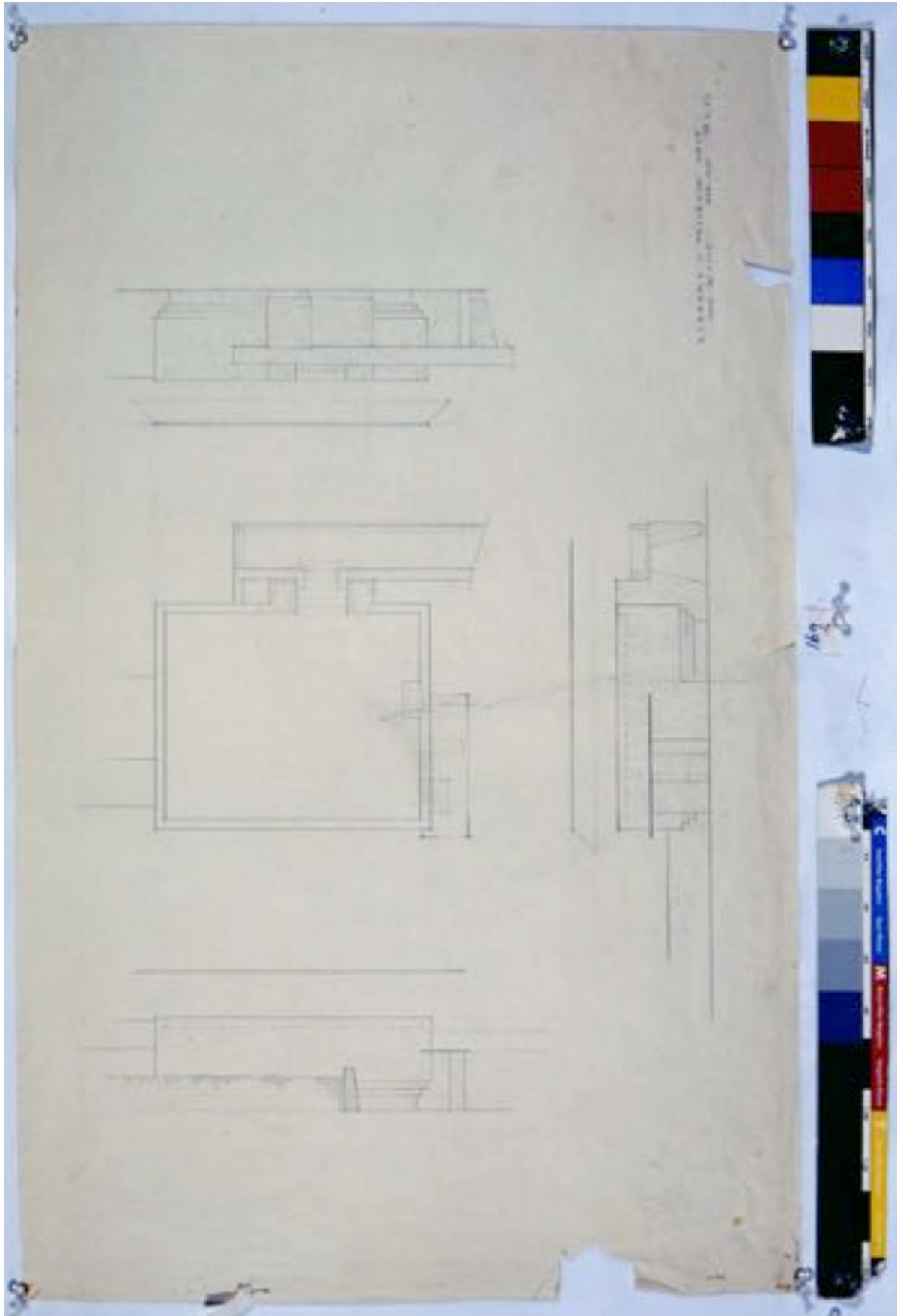


Figure B-139 - Library/Weaving Room (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

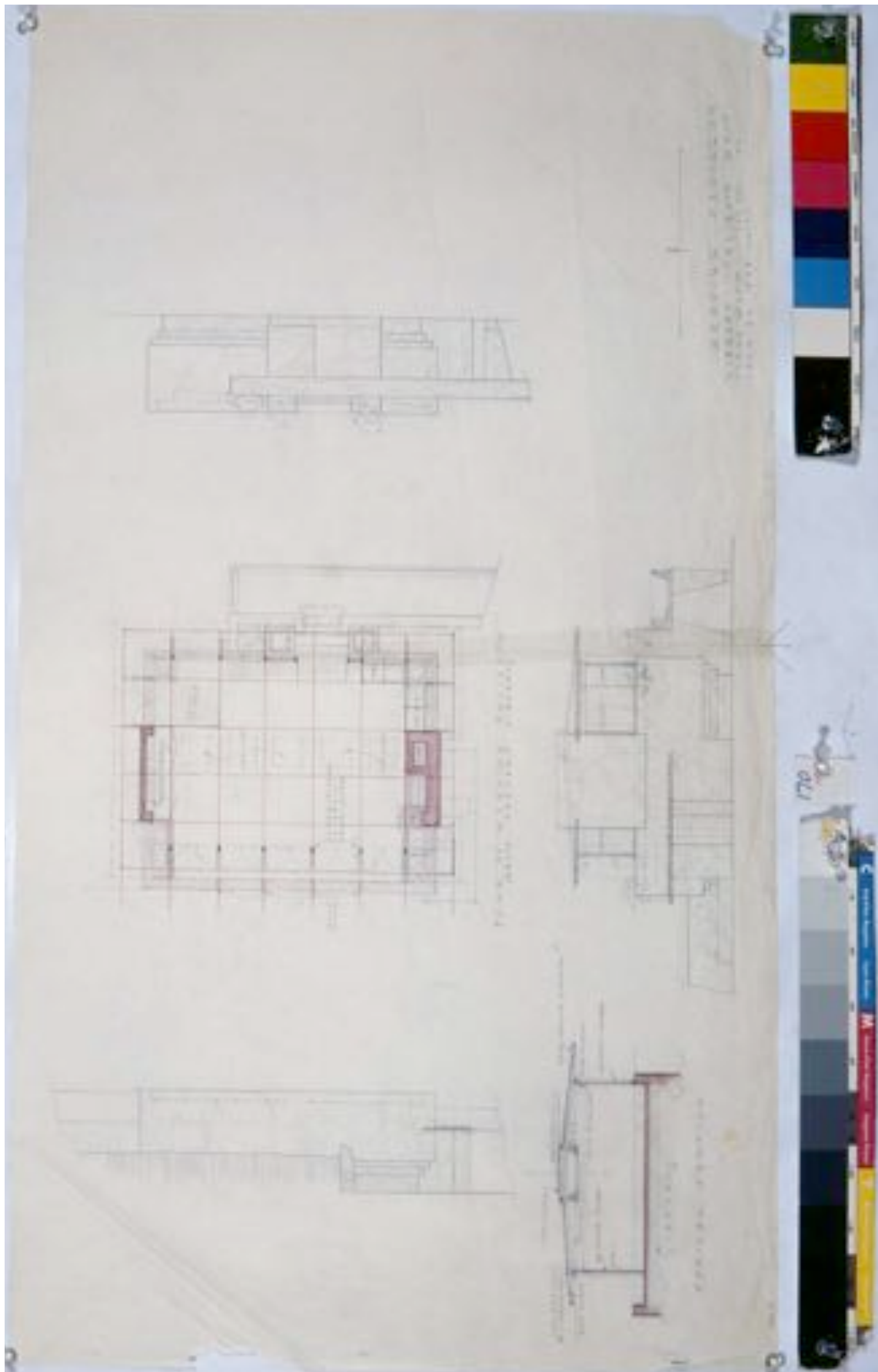


Figure B-140 - Library/Weaving Room (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

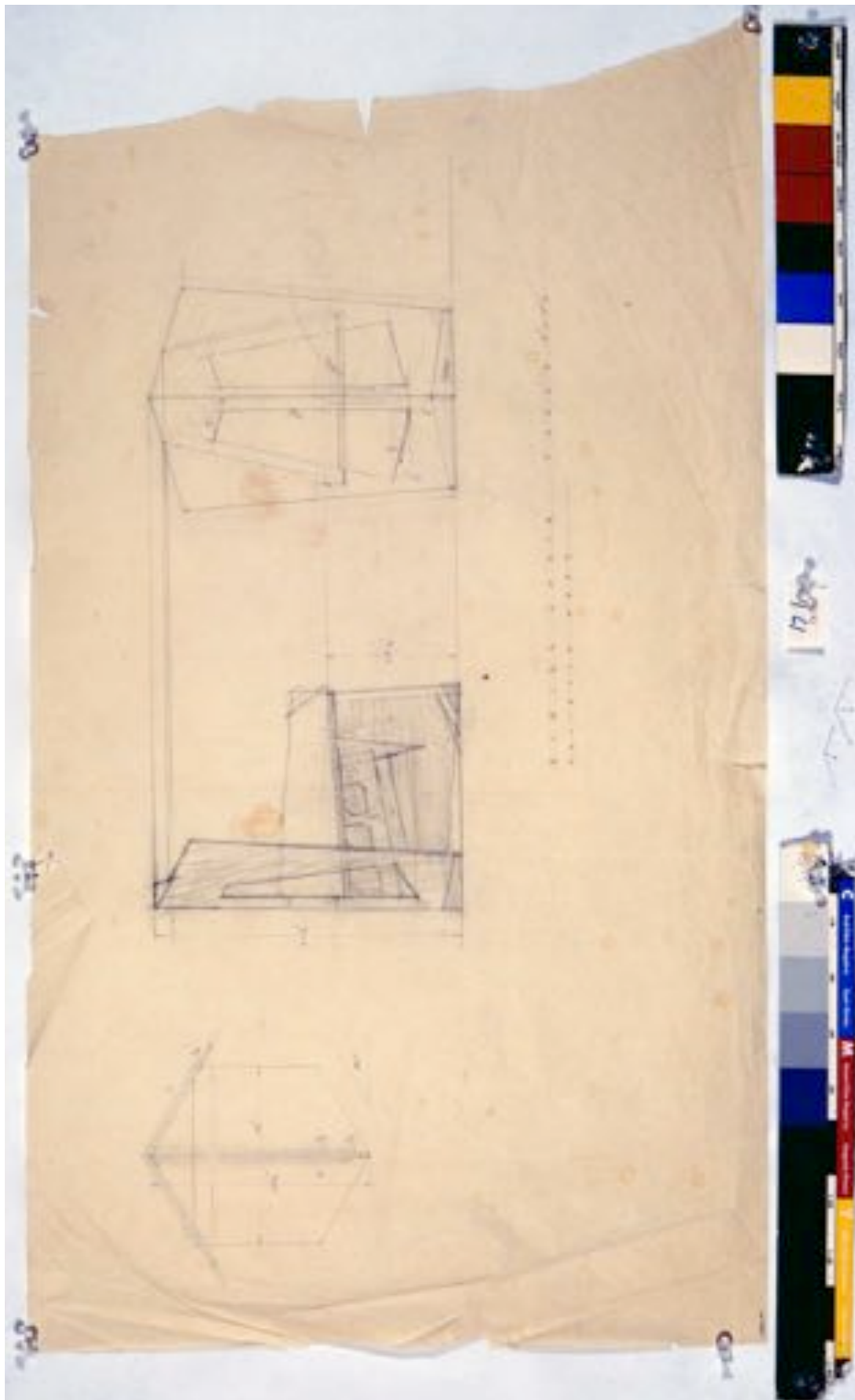


Figure B-141 - Chair (Friedman Type) (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

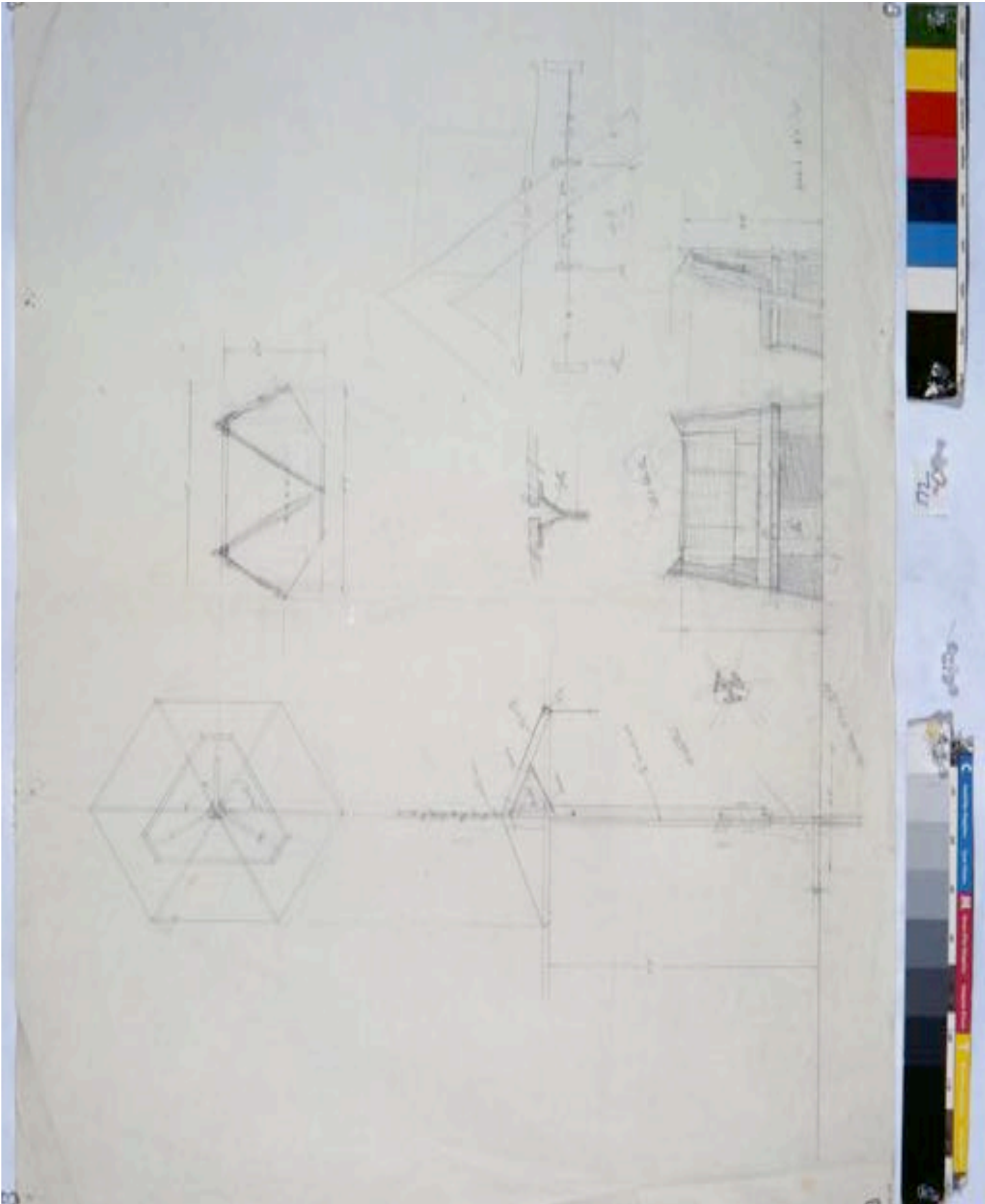


Figure B-142 - Sun Parasol/Chairs (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

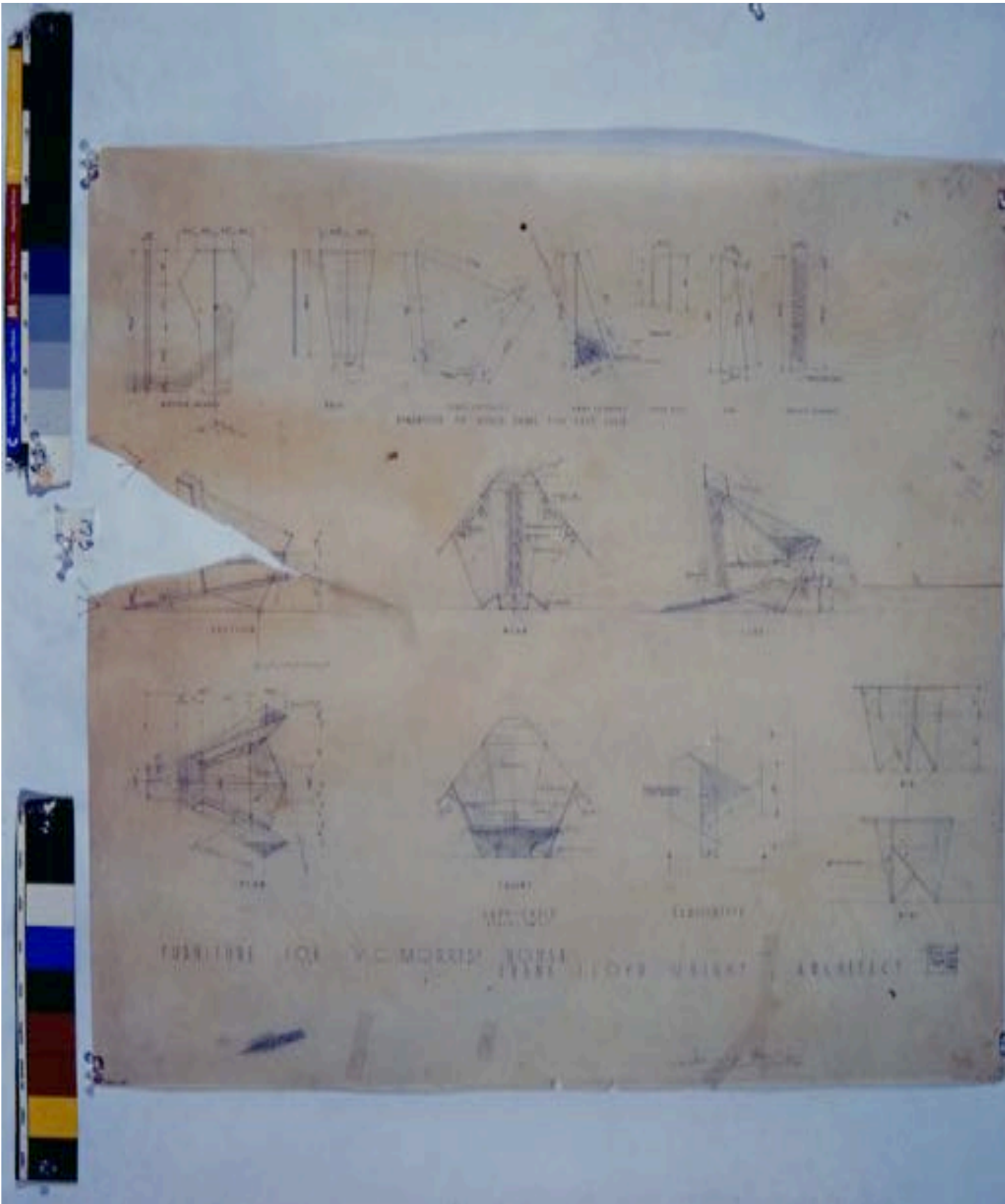


Figure B-143 - Taliesin West Chair (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

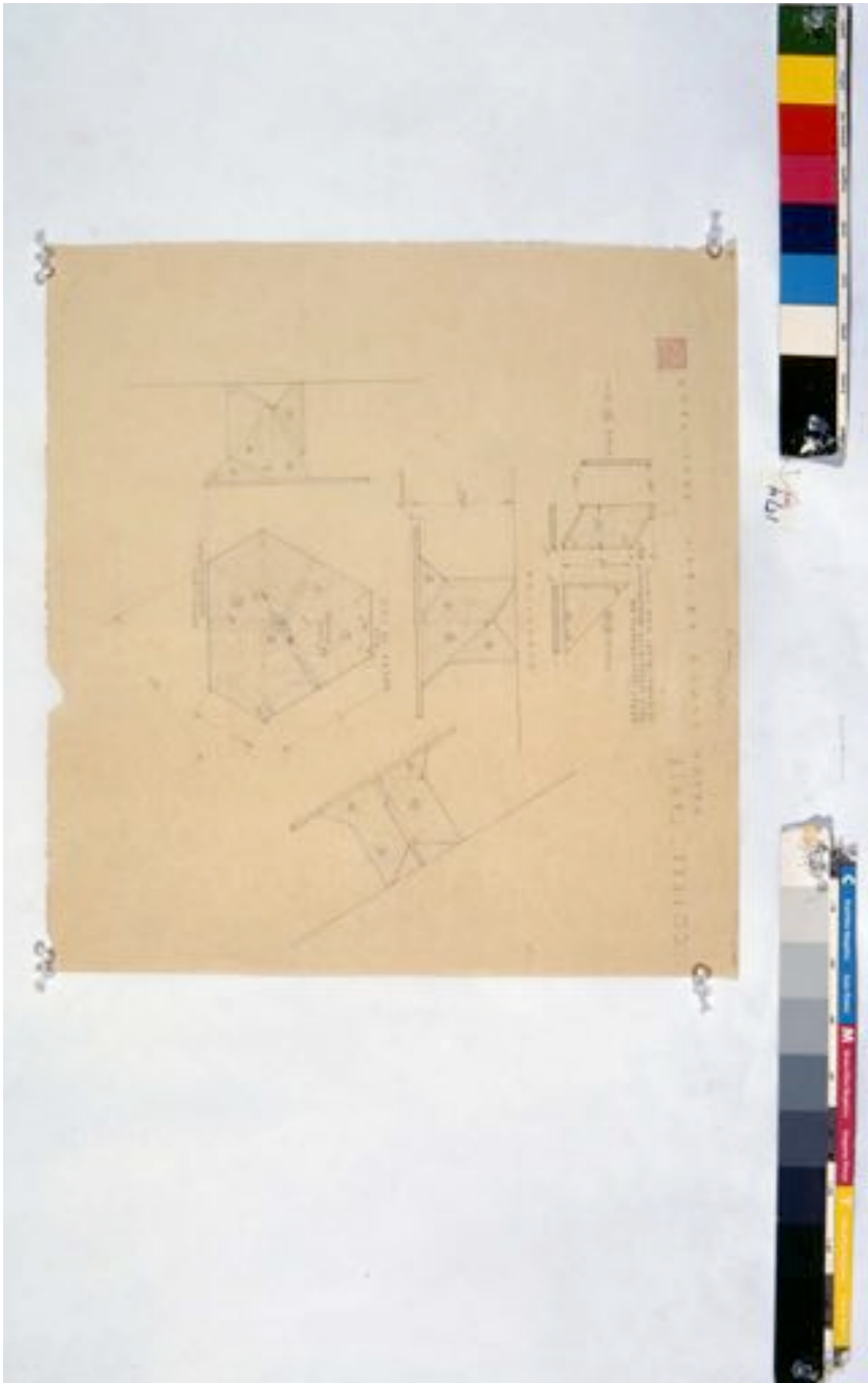


Figure B-144 - Triangular Coffee Table (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

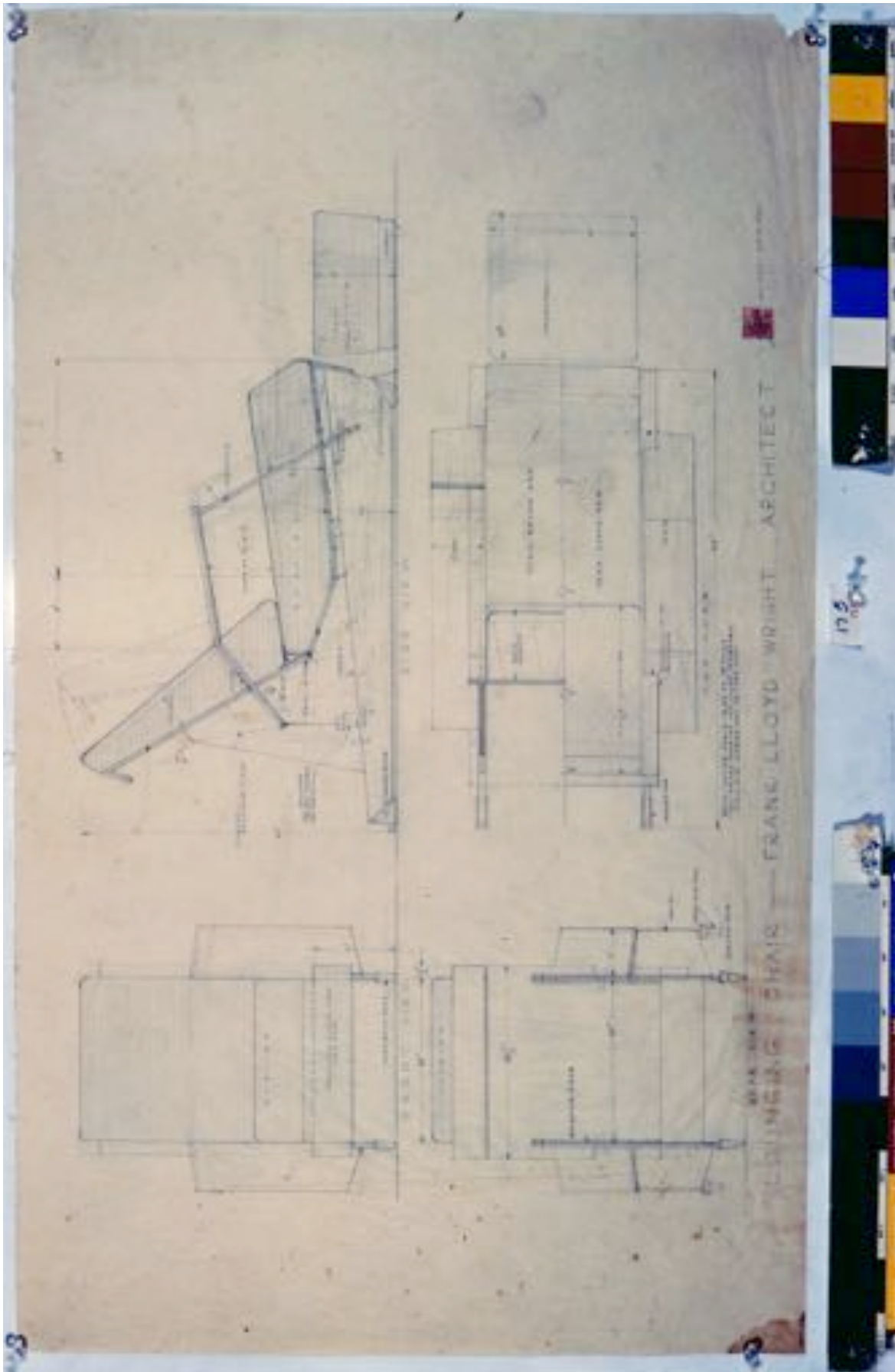


Figure B-145 - Lounge Chaise (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-146 - Lounge Chaise (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

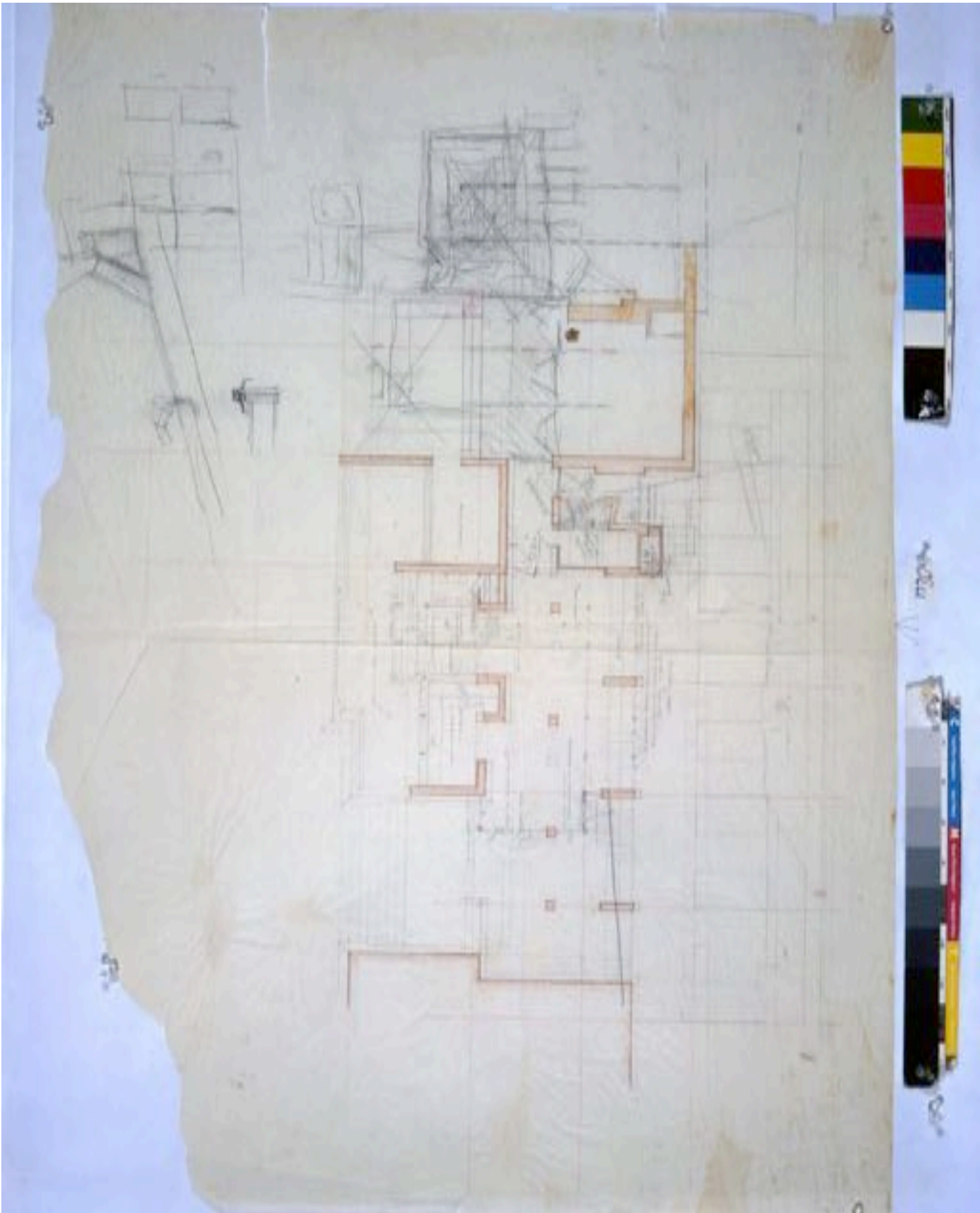


Figure B-147 - Plan of Dining Room & Kitchen (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-148 - Water Tower Chimes (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

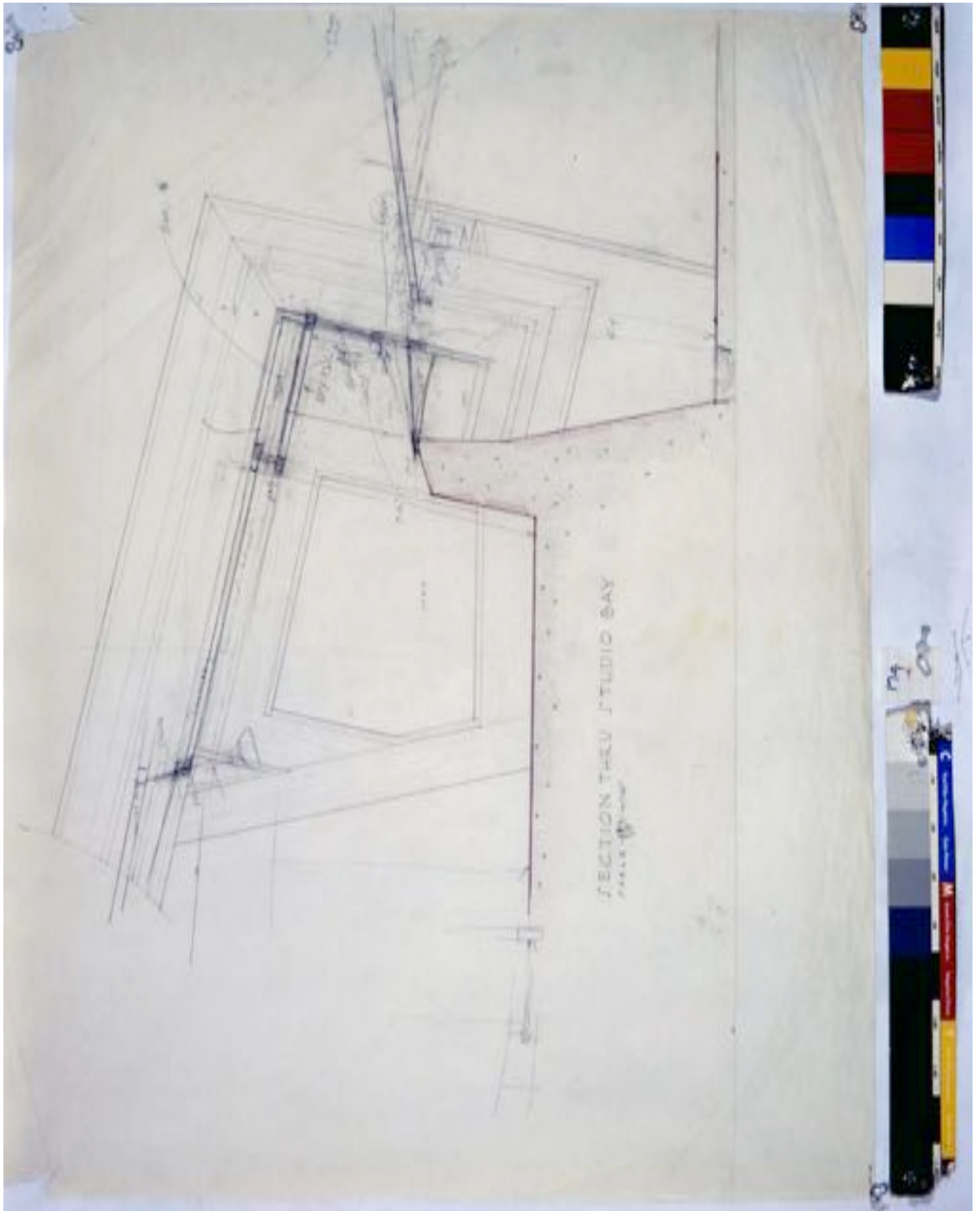


Figure B-149 - Drafting Room Bay Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

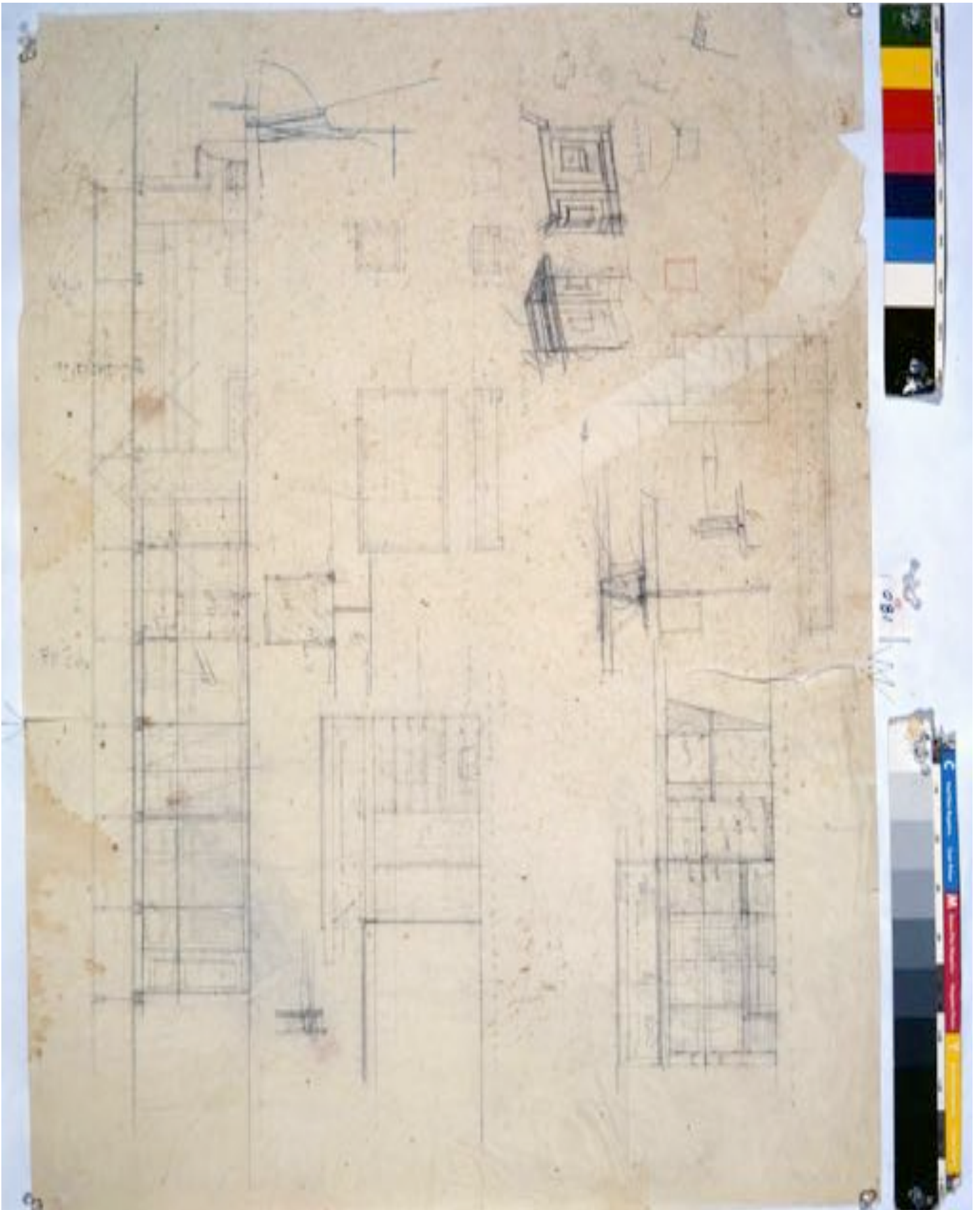


Figure B-150 - Mr. Wright's Room Interior Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

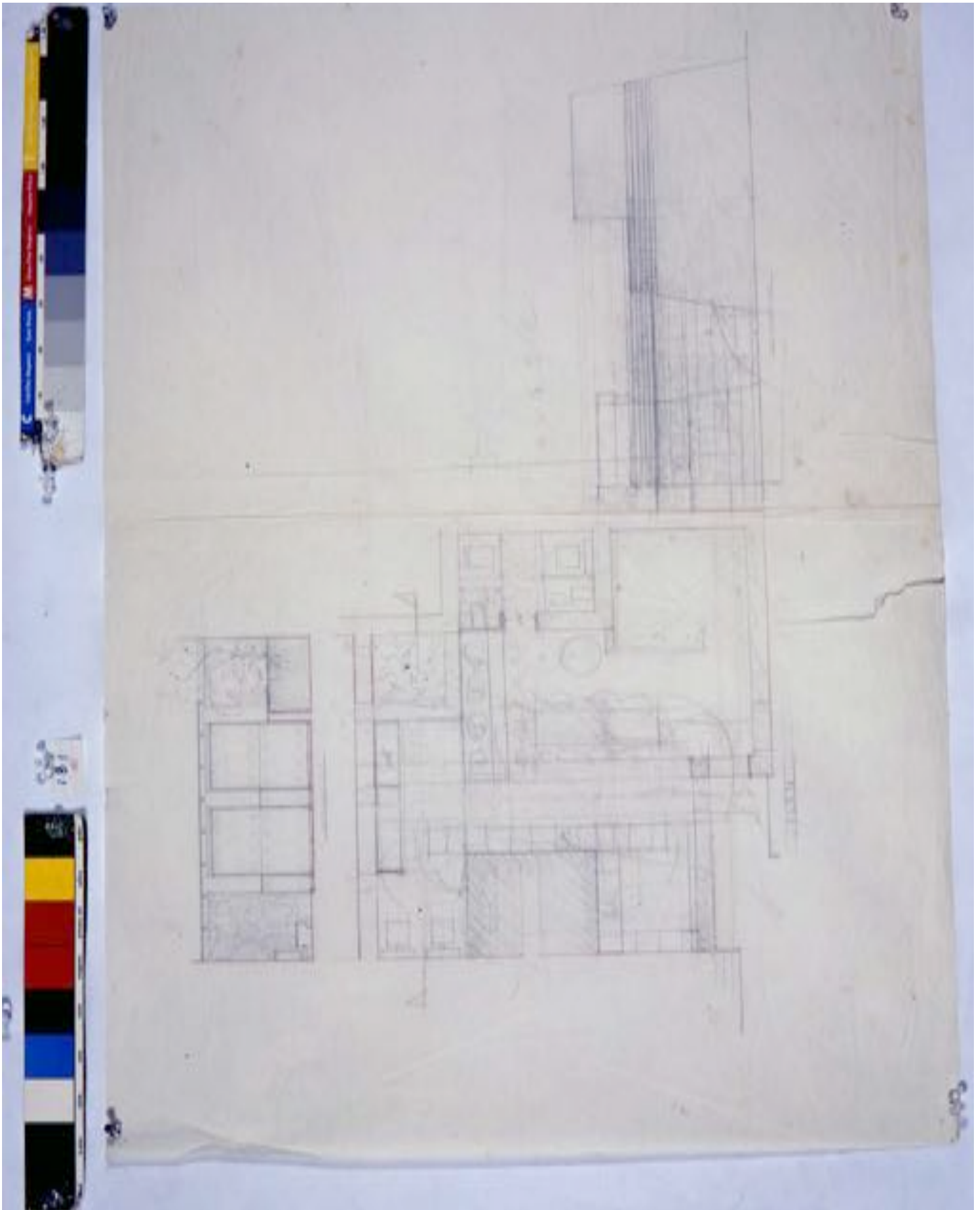


Figure B-151 - Apprentice Court Bath/Locker Room (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

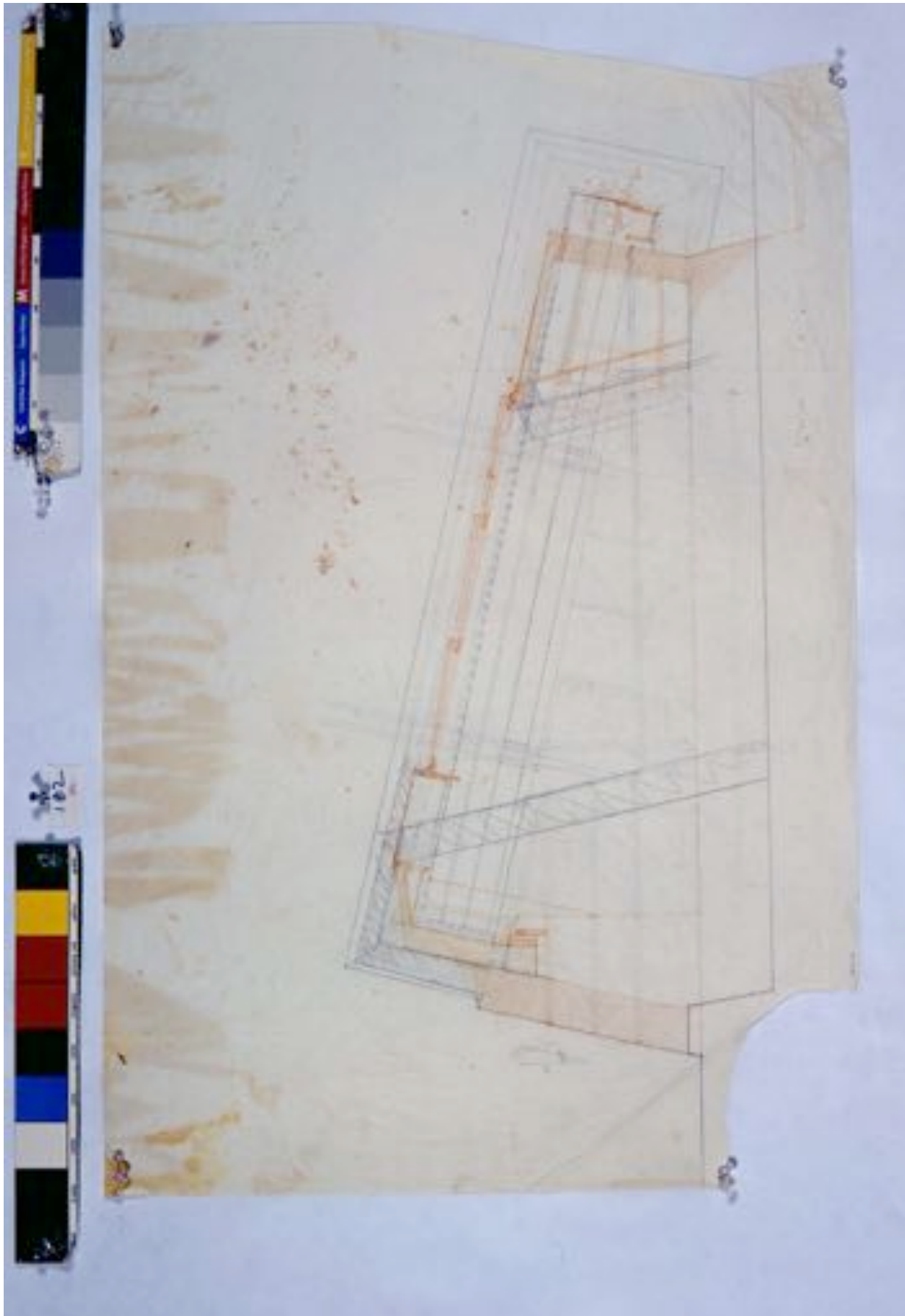


Figure B-152 - Drafting Room Truss Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

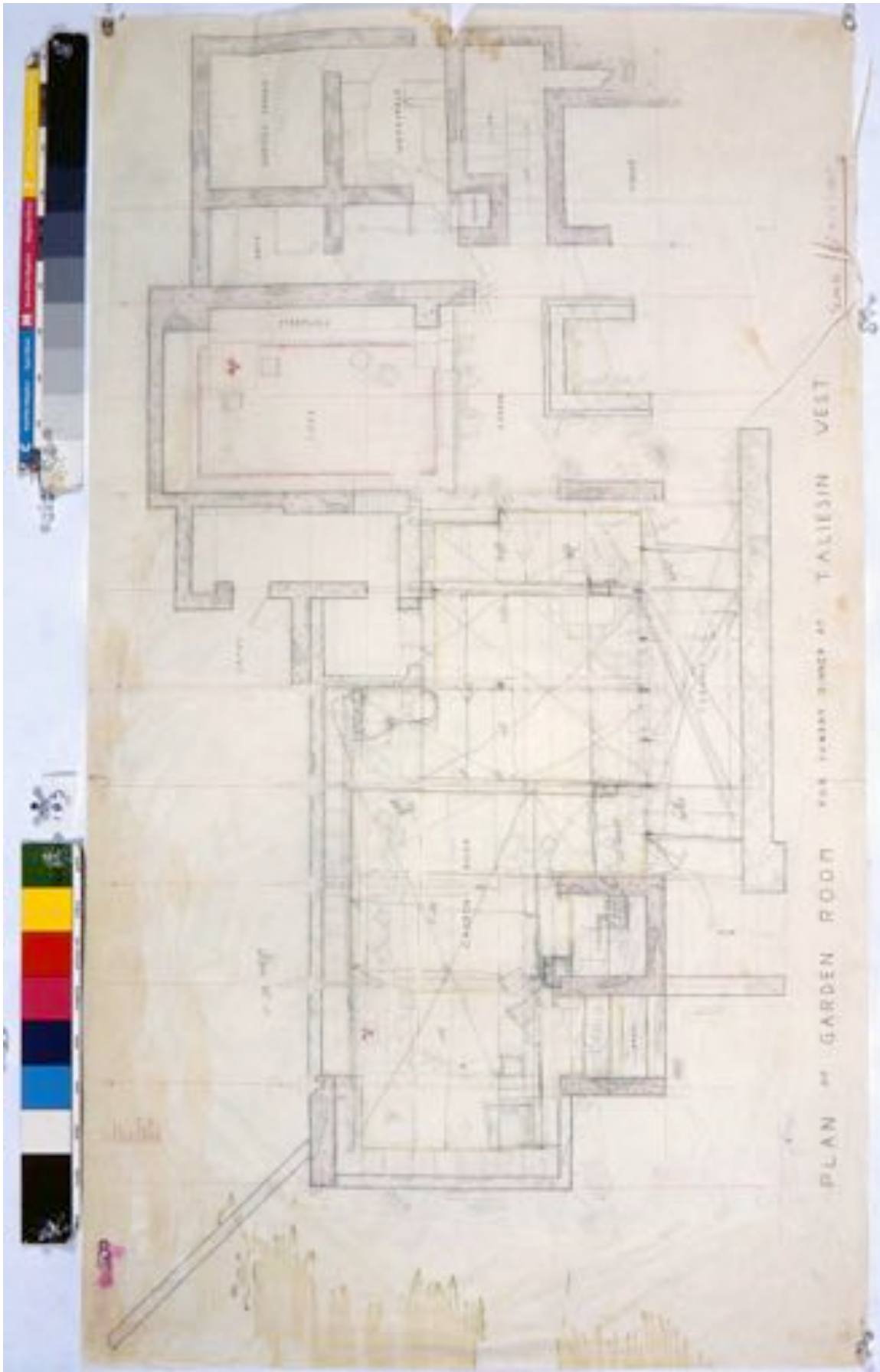


Figure B-153 - Garden Room Dinner Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

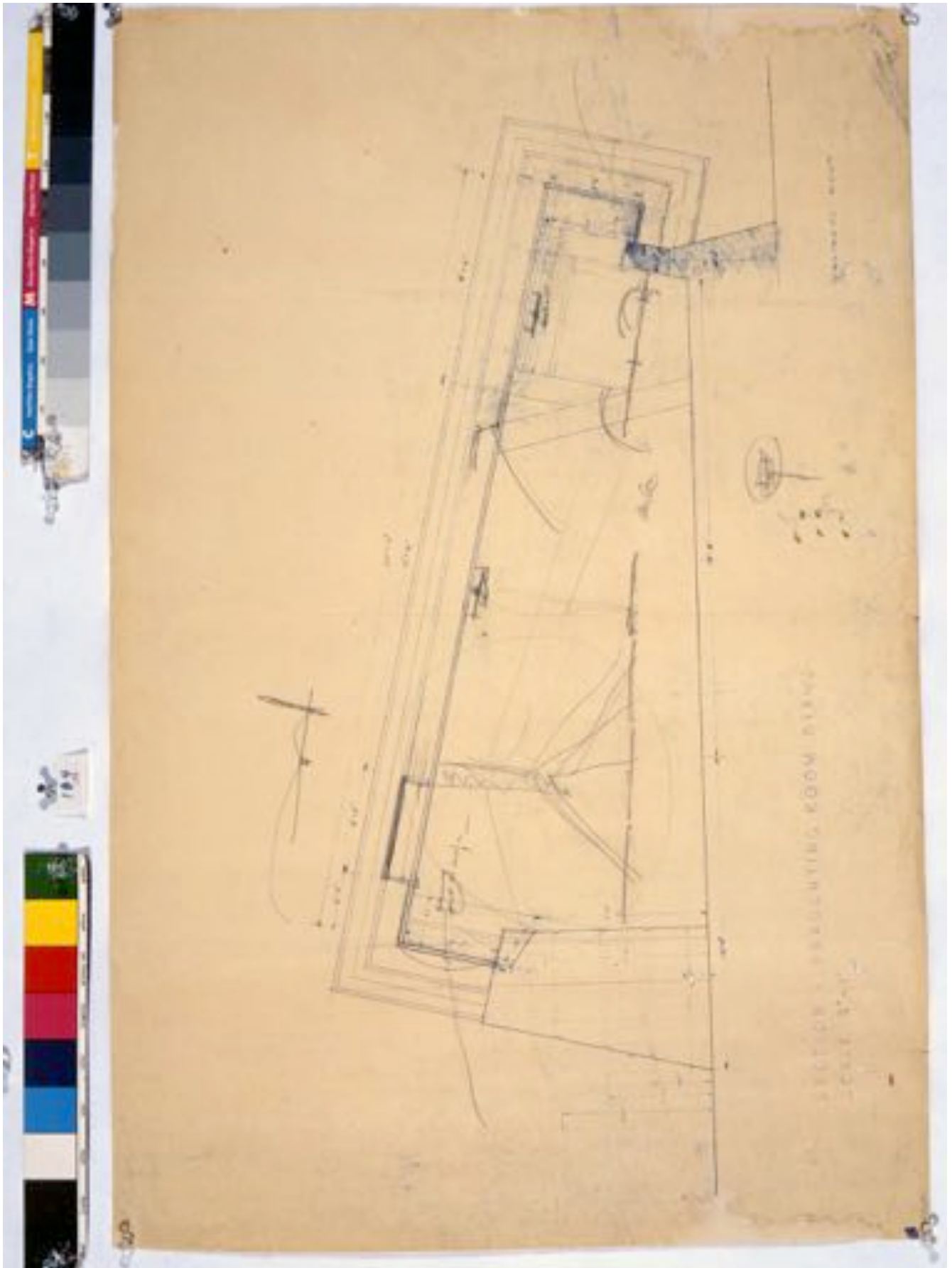


Figure B-154 - Drafting Room Truss Revision (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

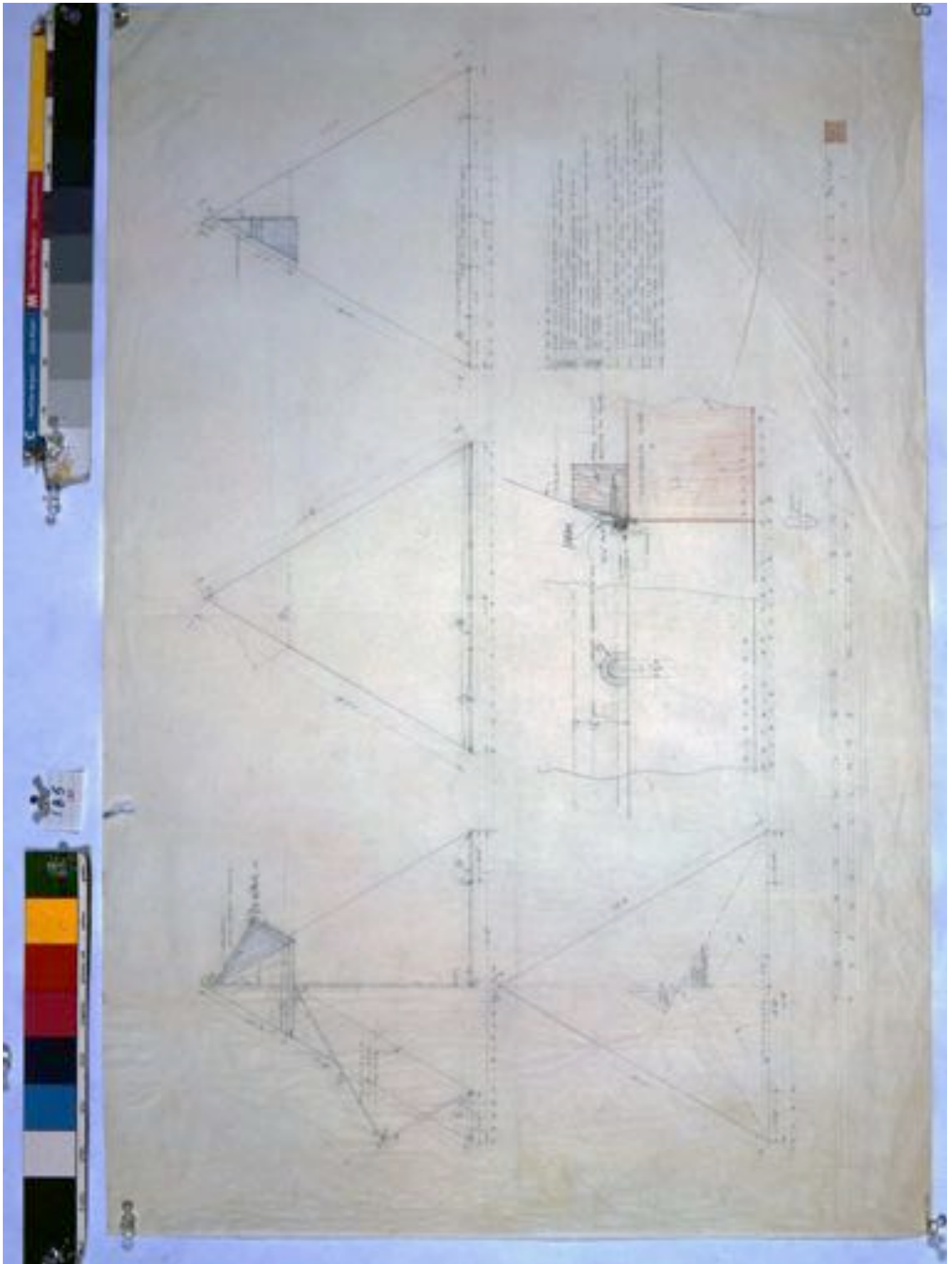


Figure B-155 - Triangular Tent (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

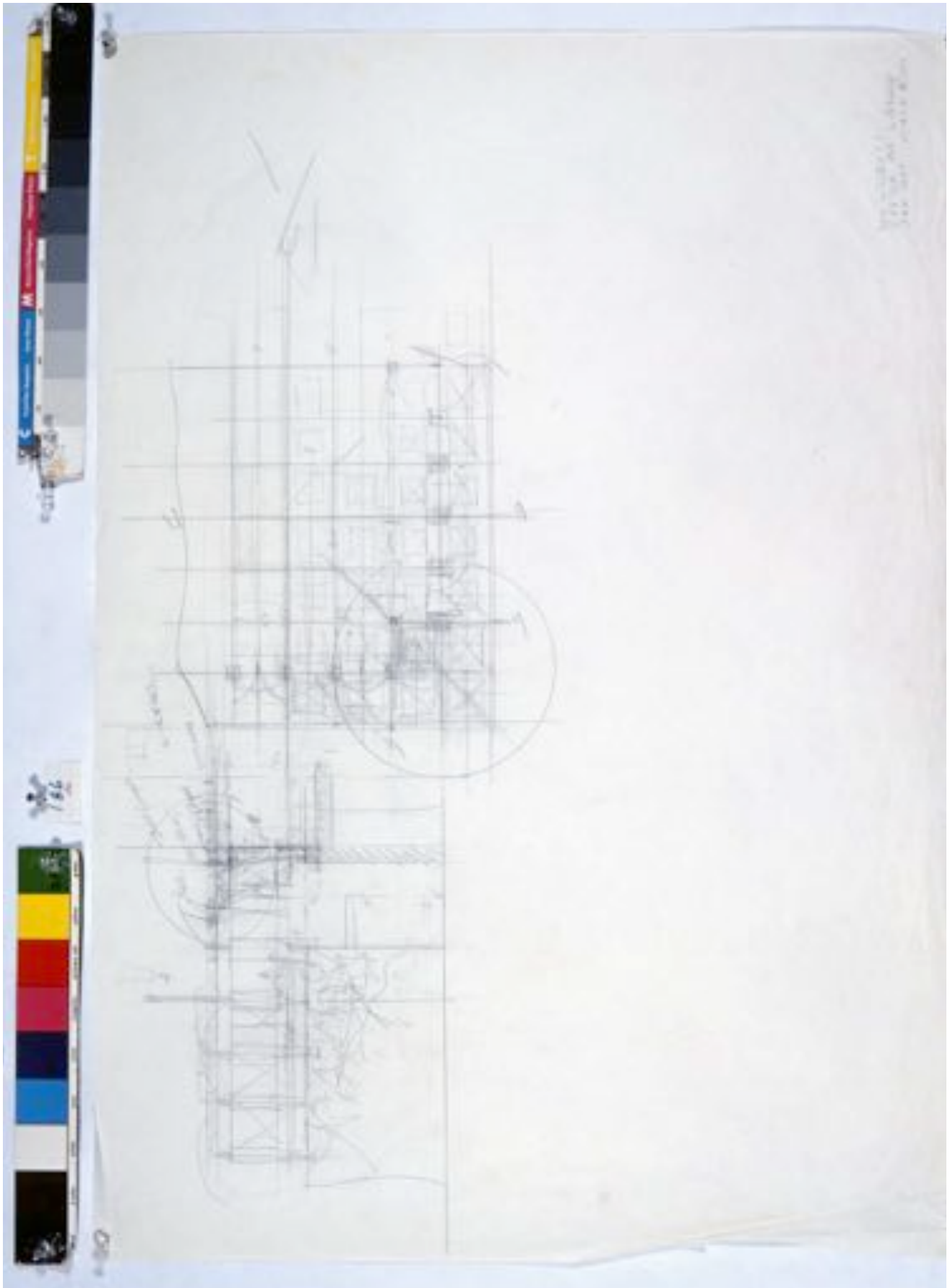


Figure B-156 -Library Sketch(The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

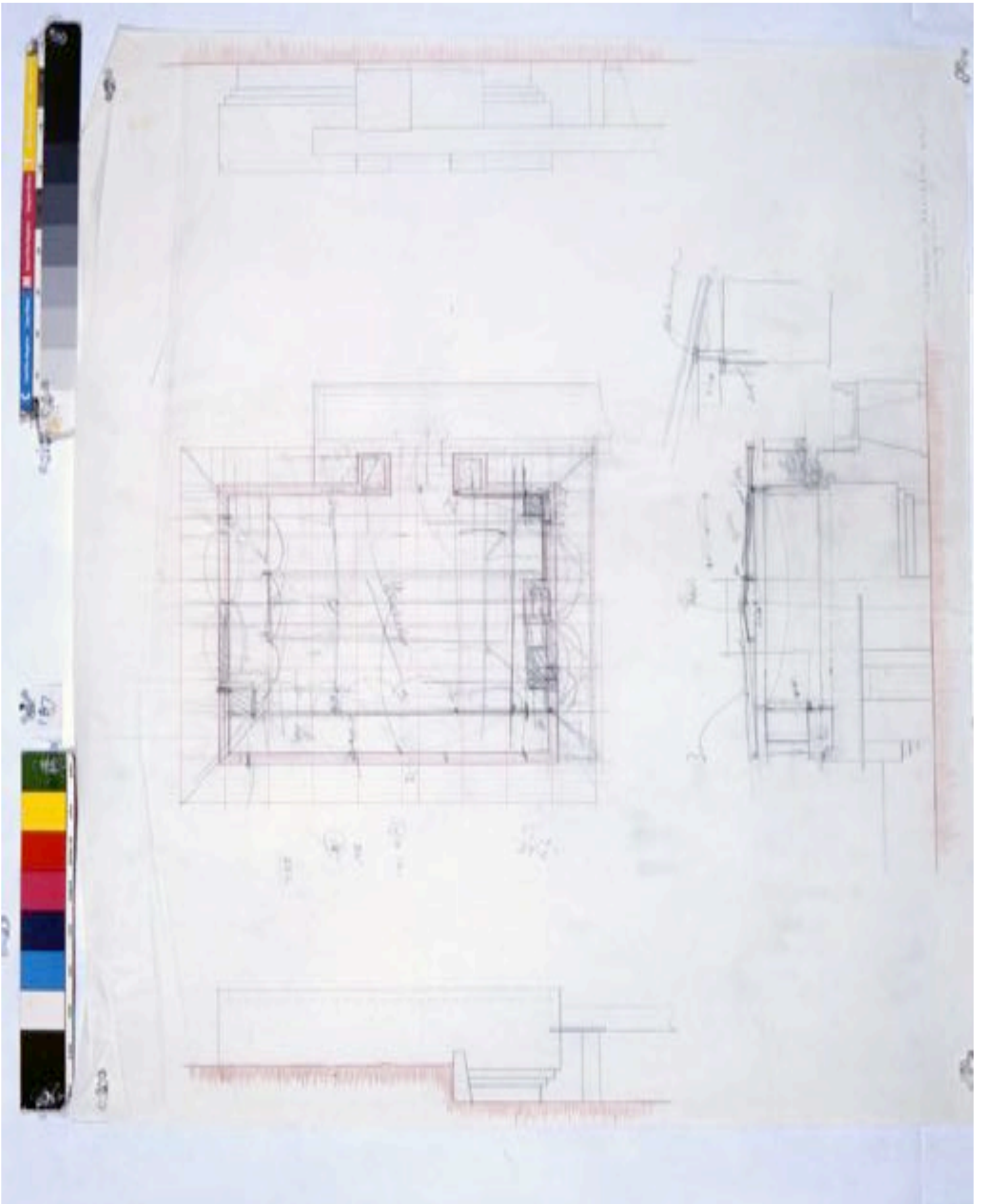


Figure B-157 - Weaving Gallery Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

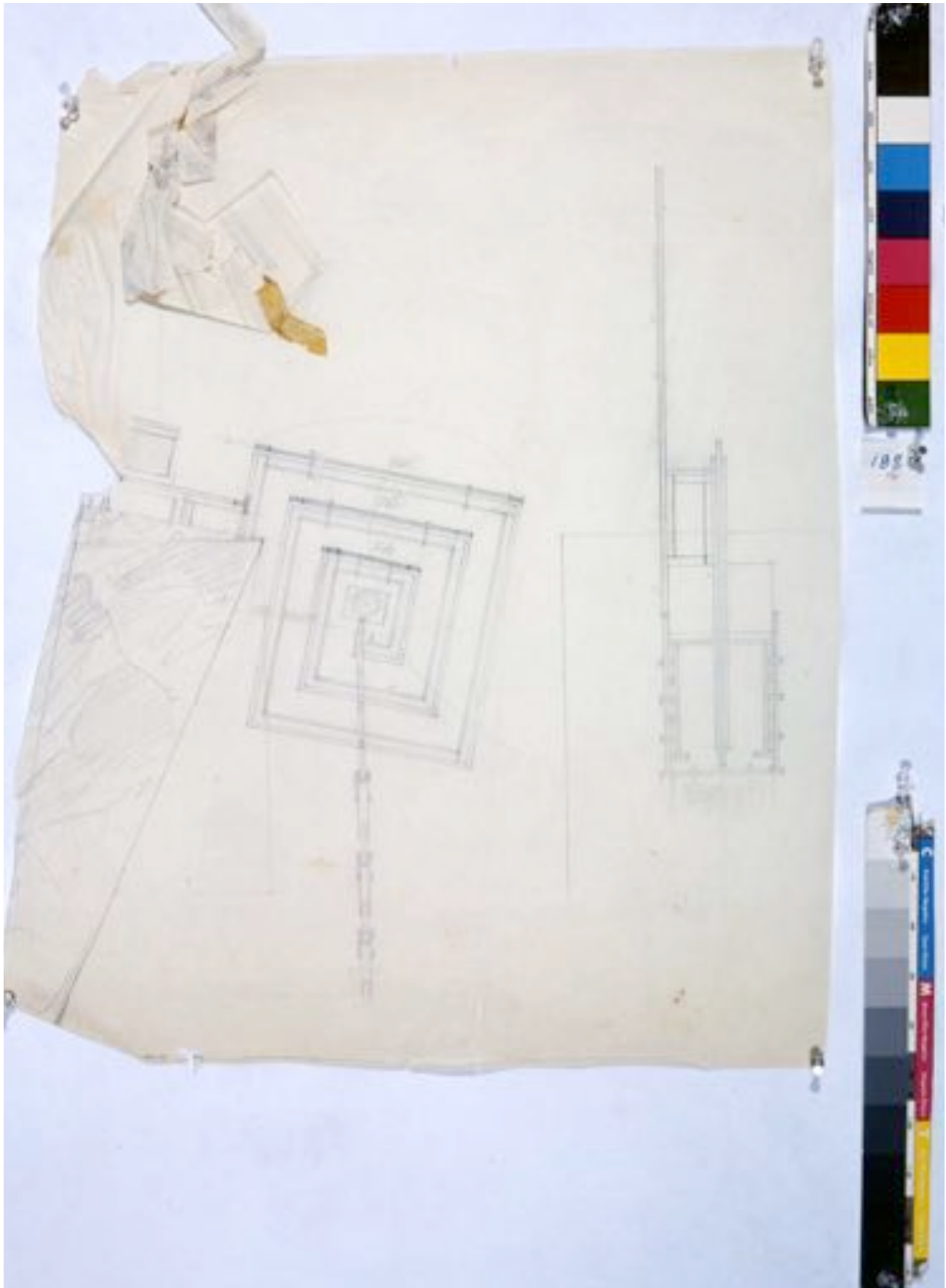


Figure B-158 - Taliesin West Sign (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

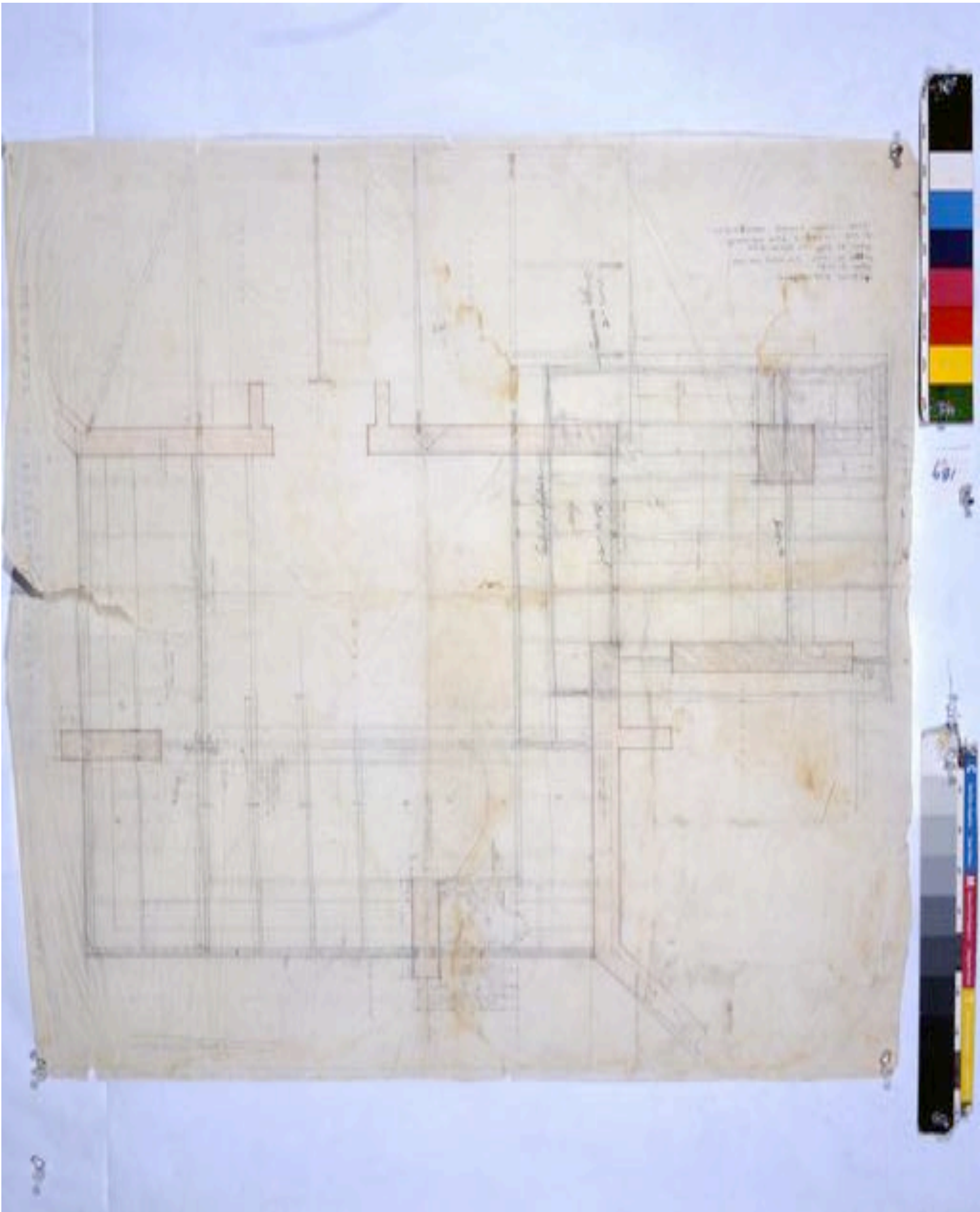


Figure B-159 - Apprentice Court Terrace Roof (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

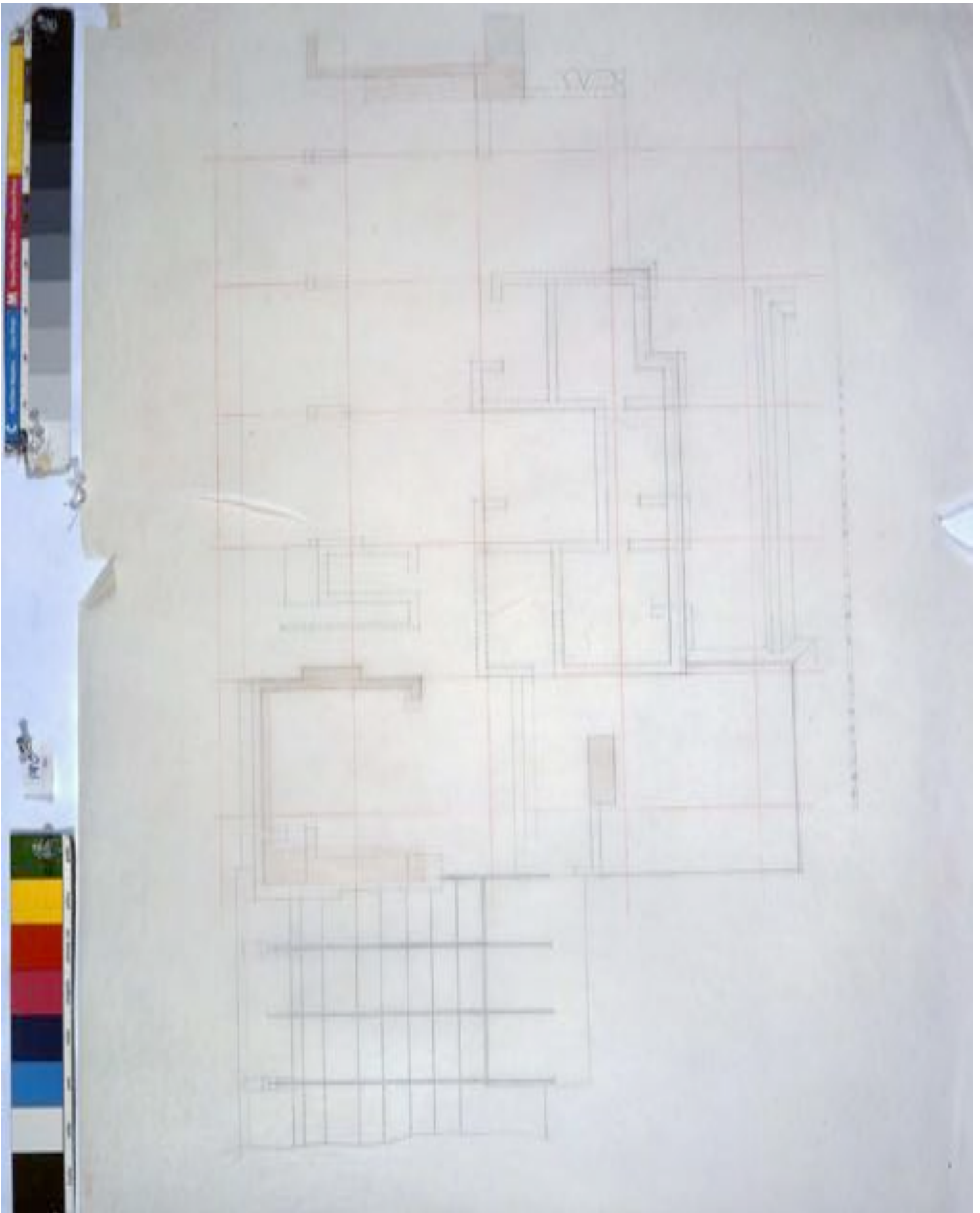


Figure B-160 - Dining Room Revisions (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

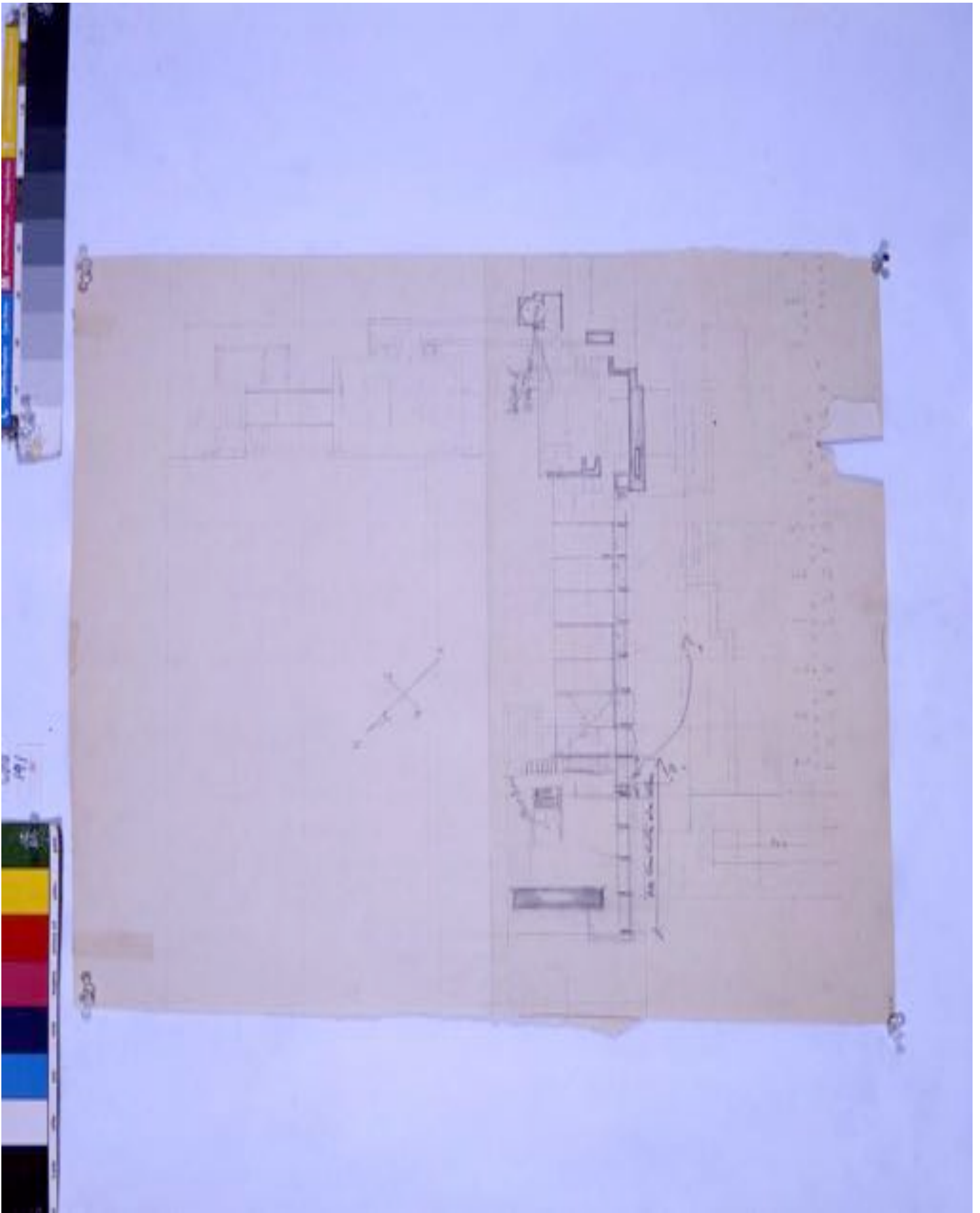


Figure B-161 - Guest Deck Revisions (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

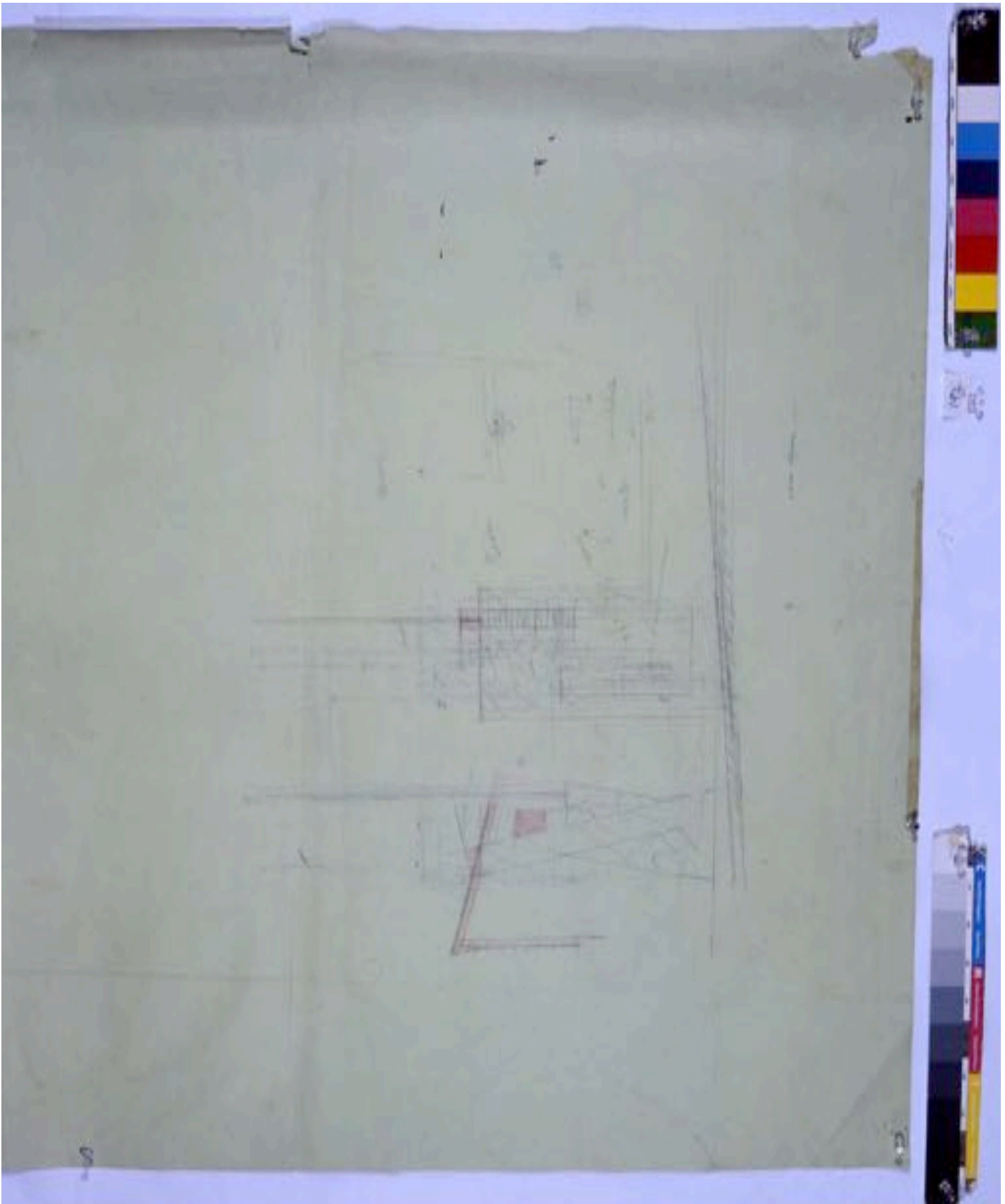


Figure B-162 - Light Tower Revisions (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

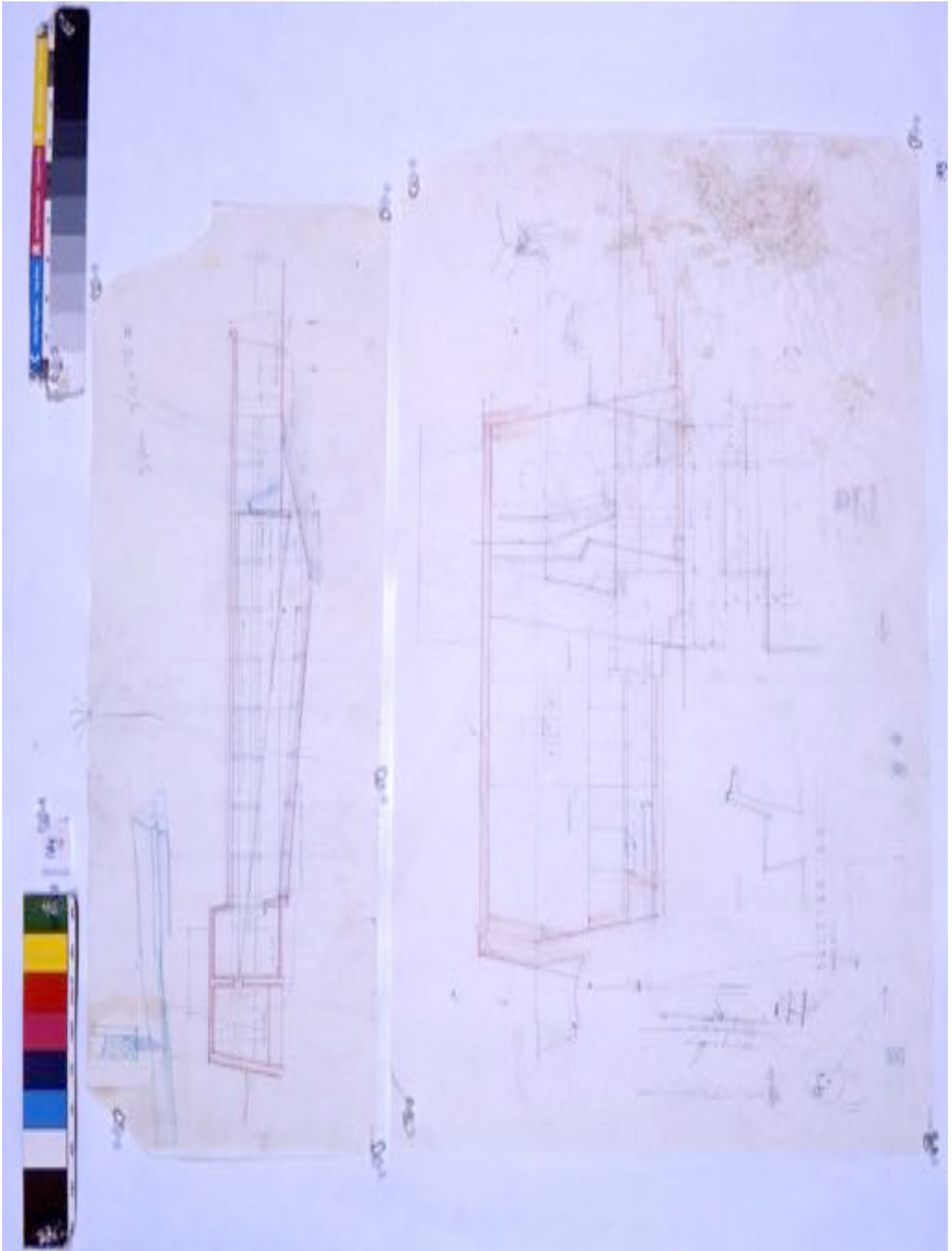


Figure B-163 - Cabaret Longitudinal Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

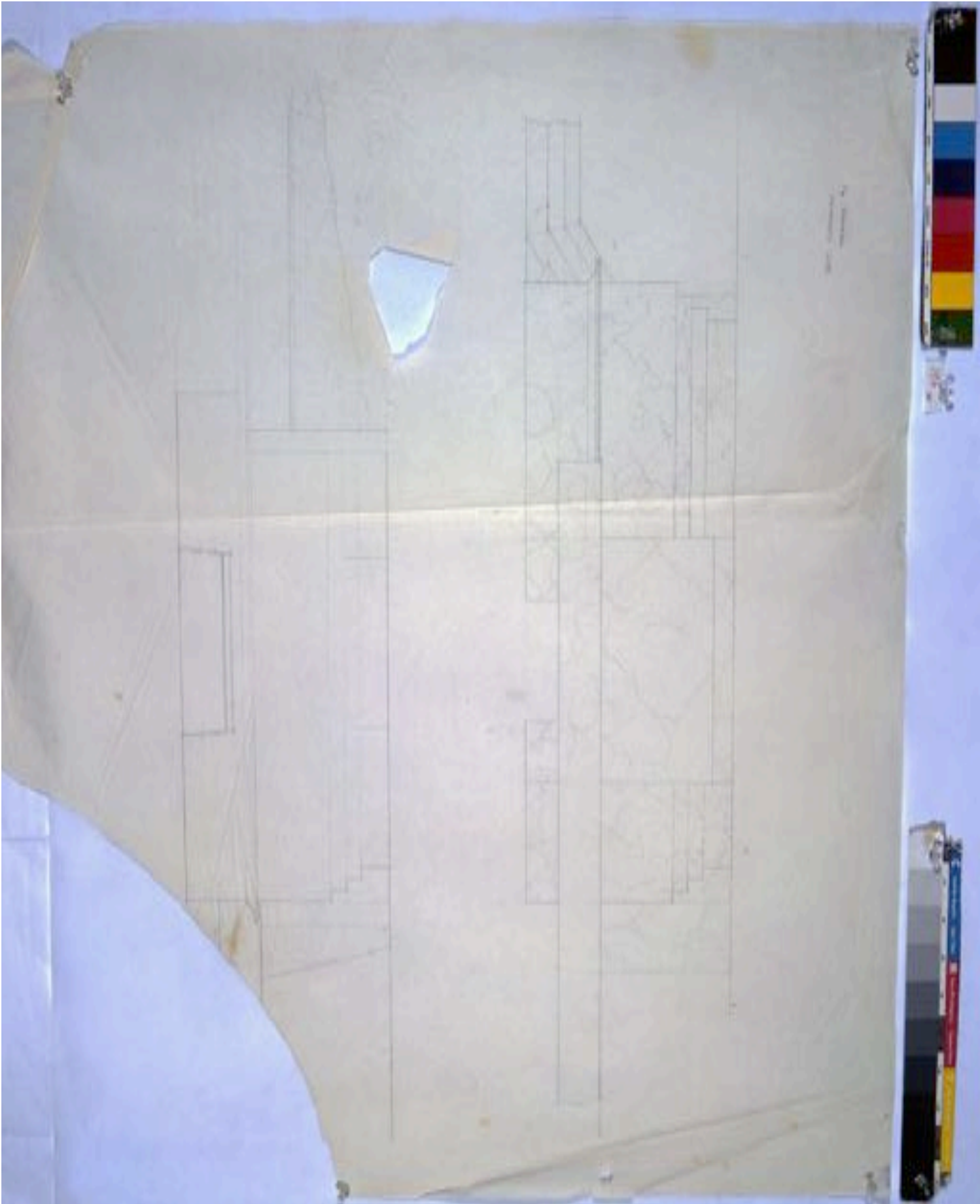


Figure B-163 - Library Revisions (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

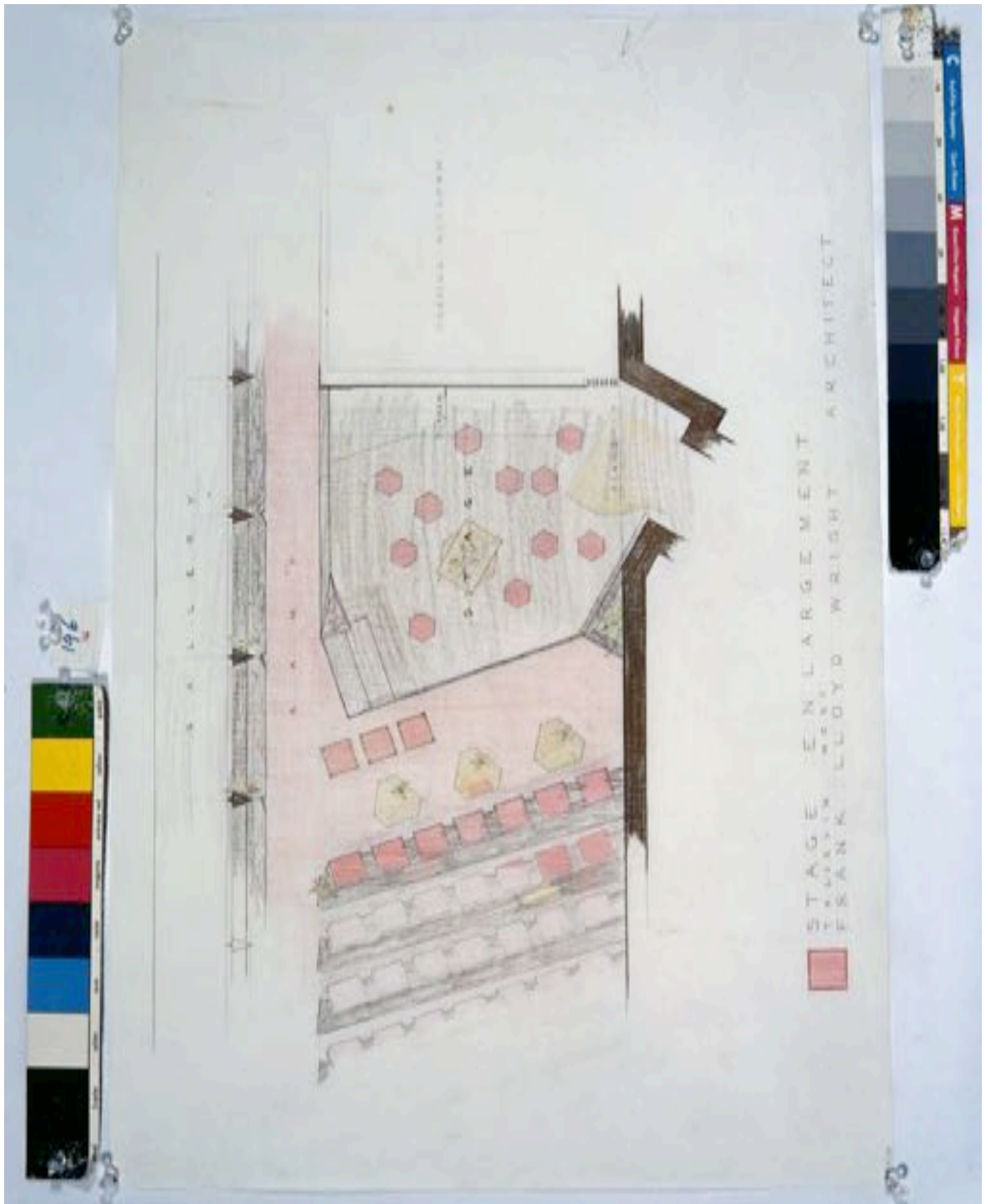


Figure B-166 - Cabaret Stage Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

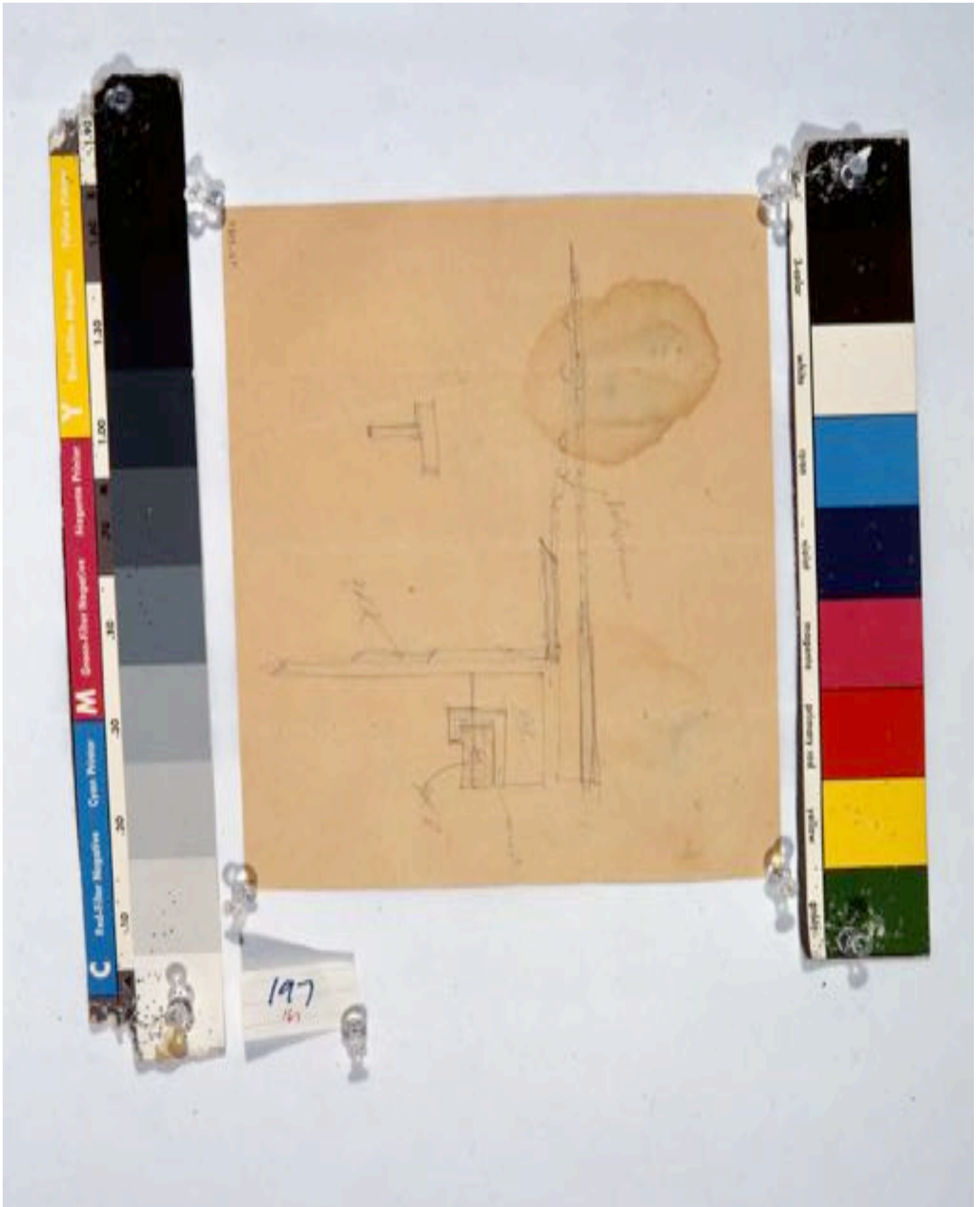


Figure B-167 - Wood Abstract Finial (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

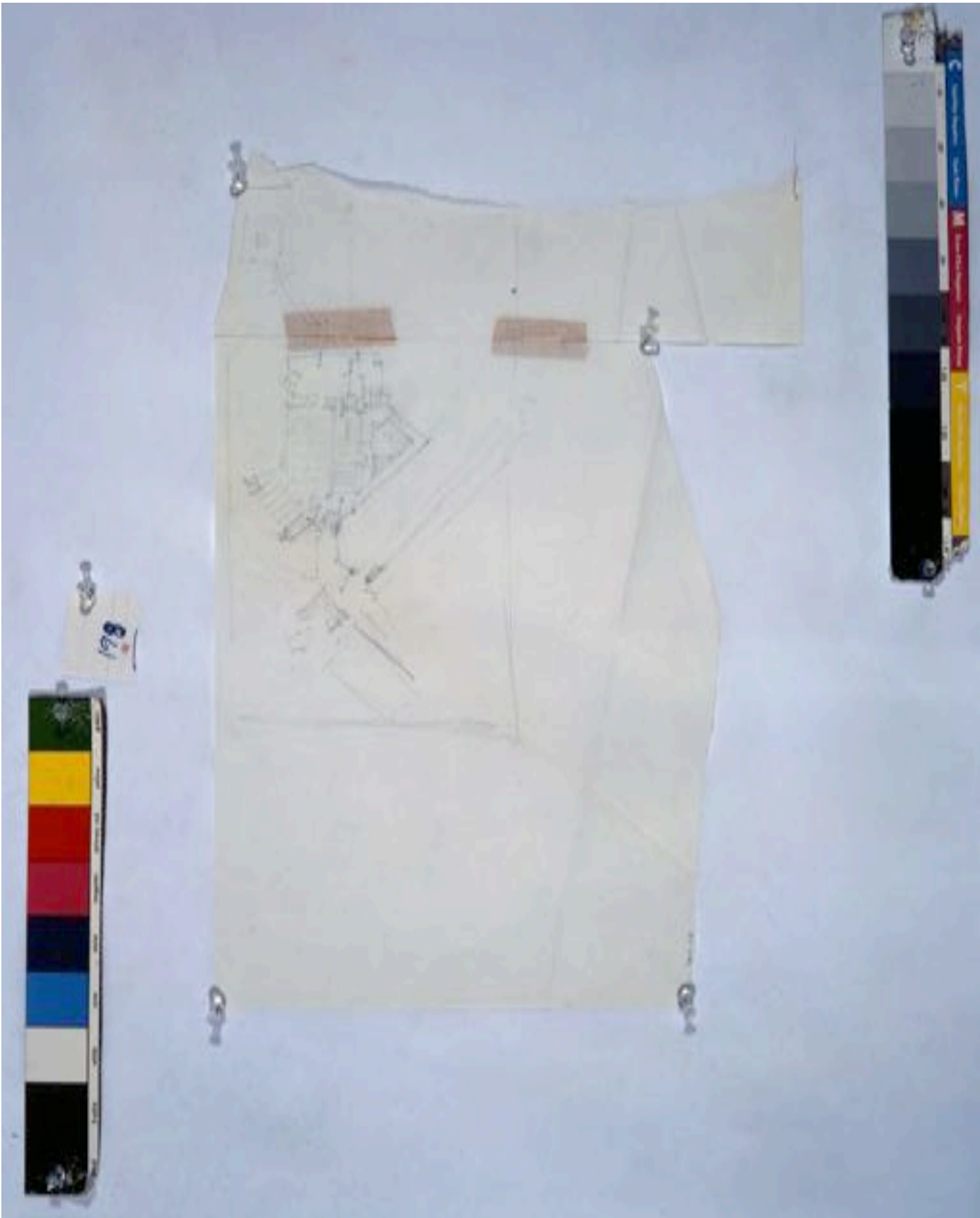


Figure B-168 - Entry Road Revision (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

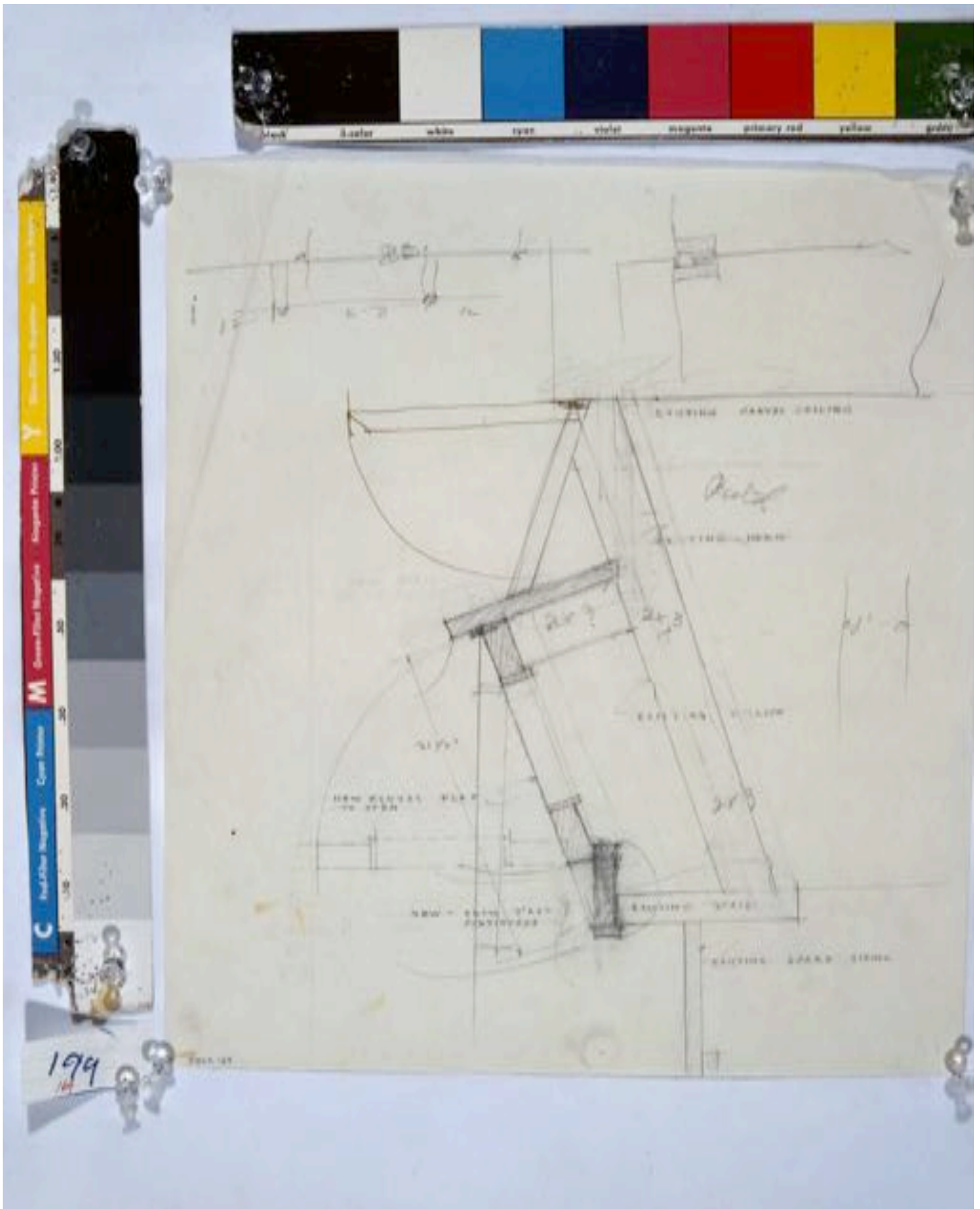


Figure B-169 - Guest Deck Flap Detail (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

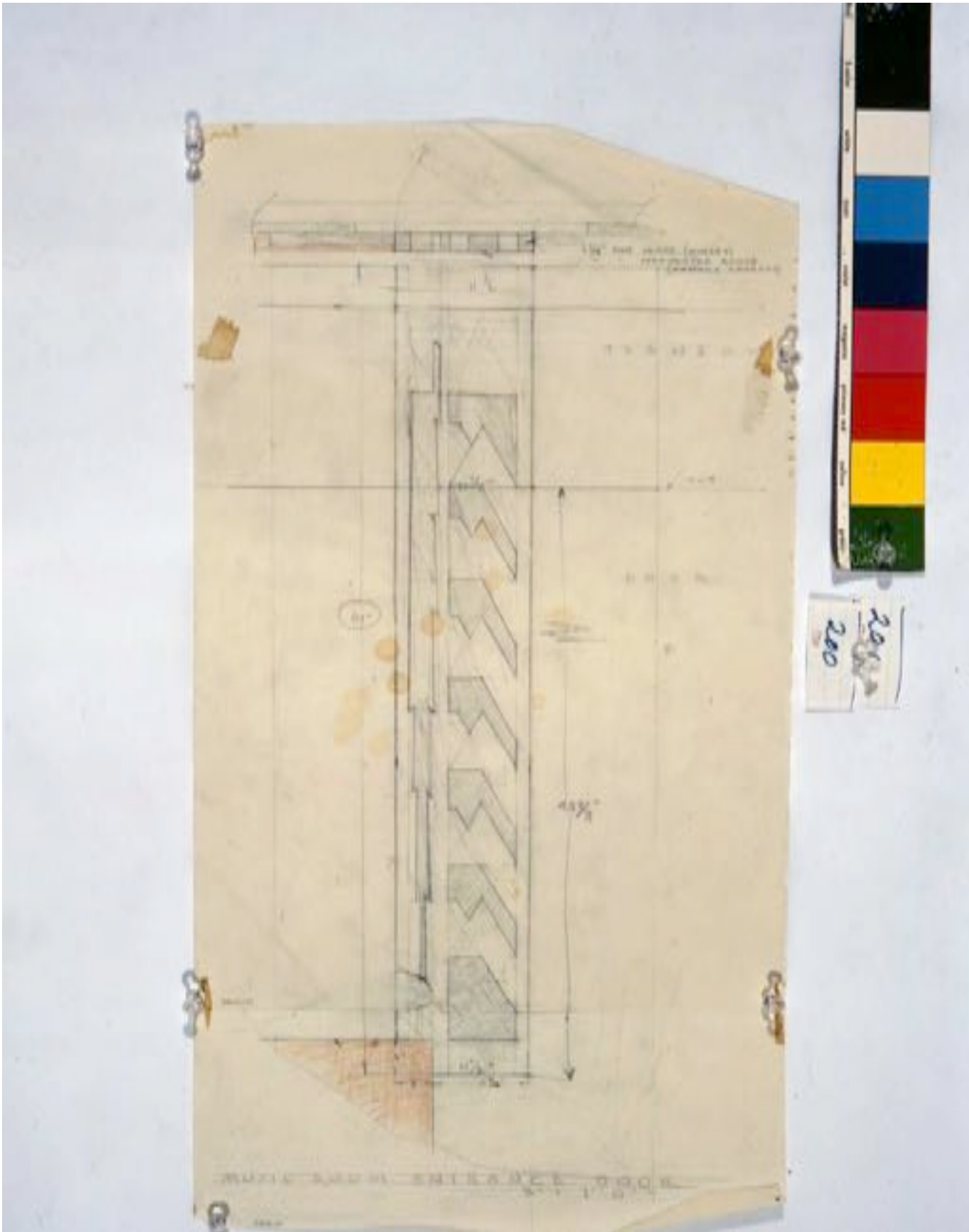


Figure B-170 - Perforated Transom (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

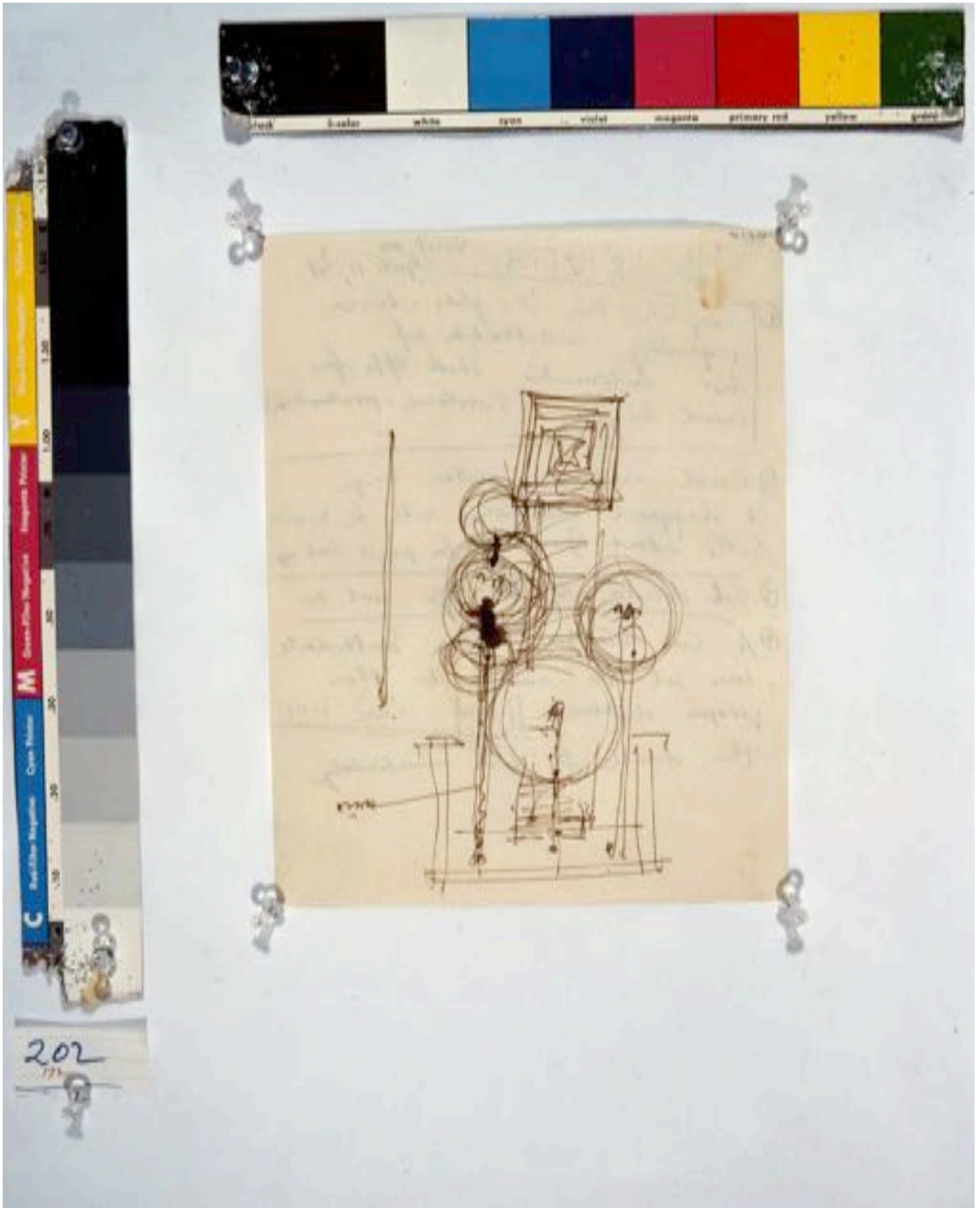


Figure B-172 - Bell Tower Sketch (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

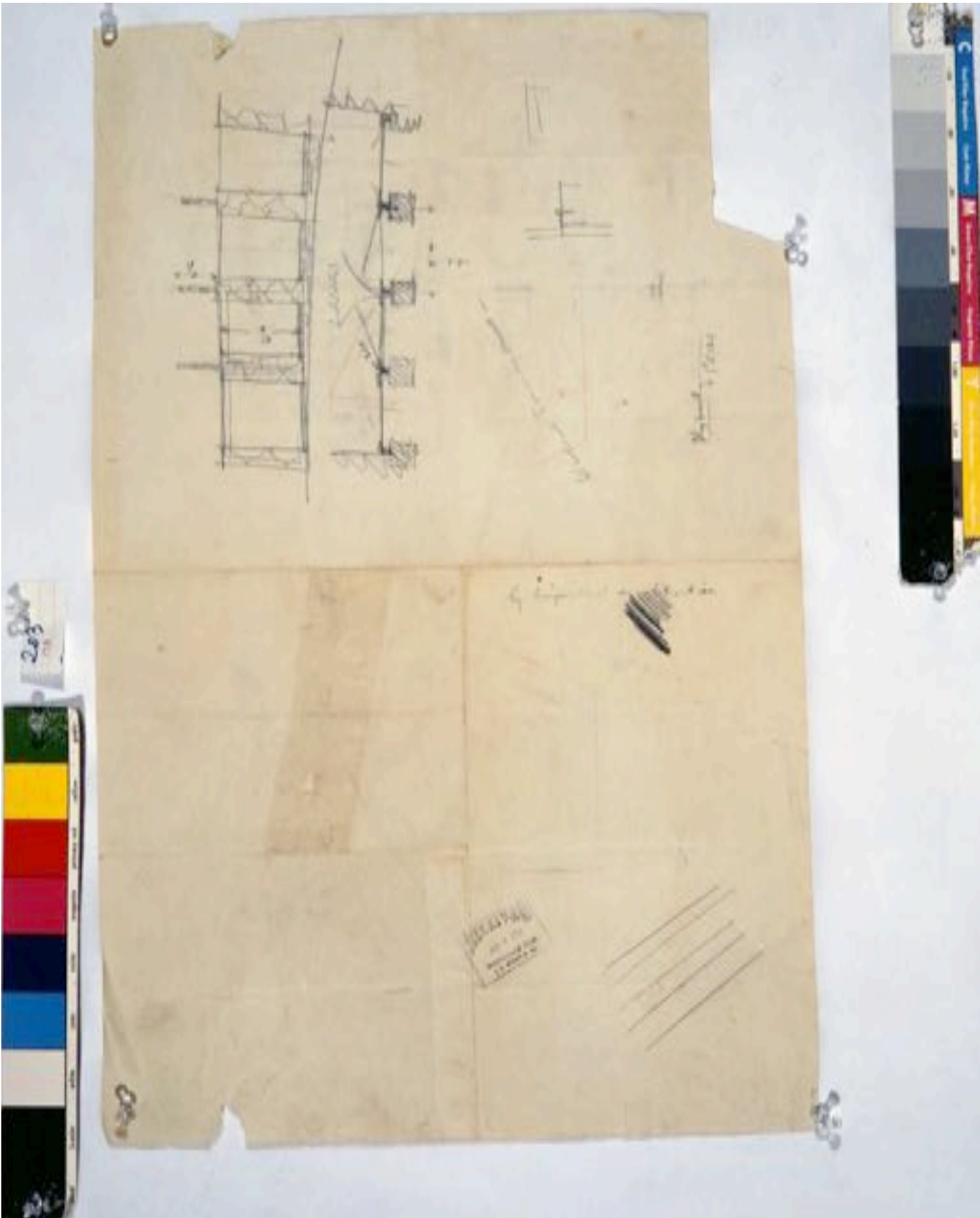


Figure B-173 - Lanai by Lower Room (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

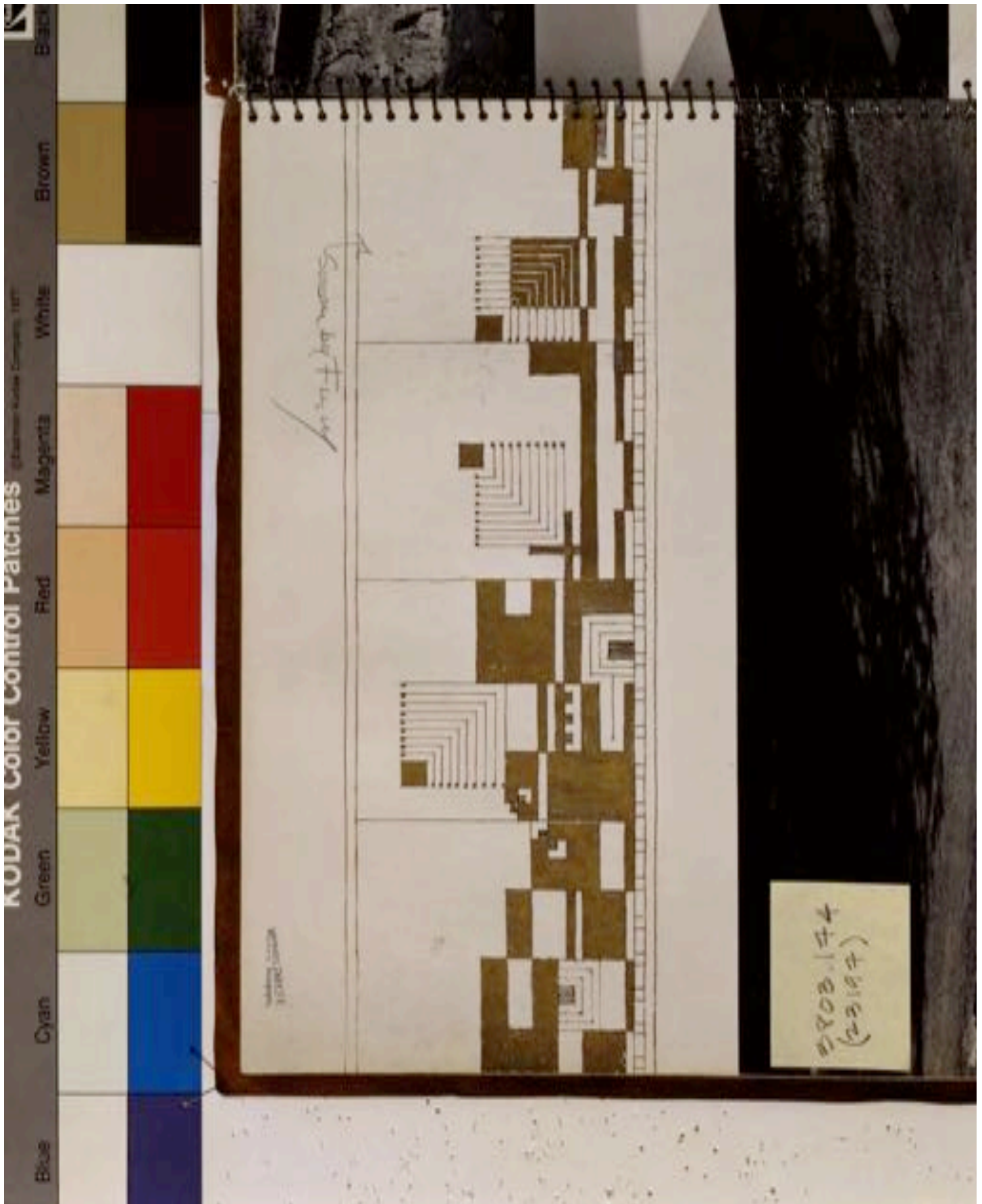


Figure B-174 - Lanai Abstraction (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

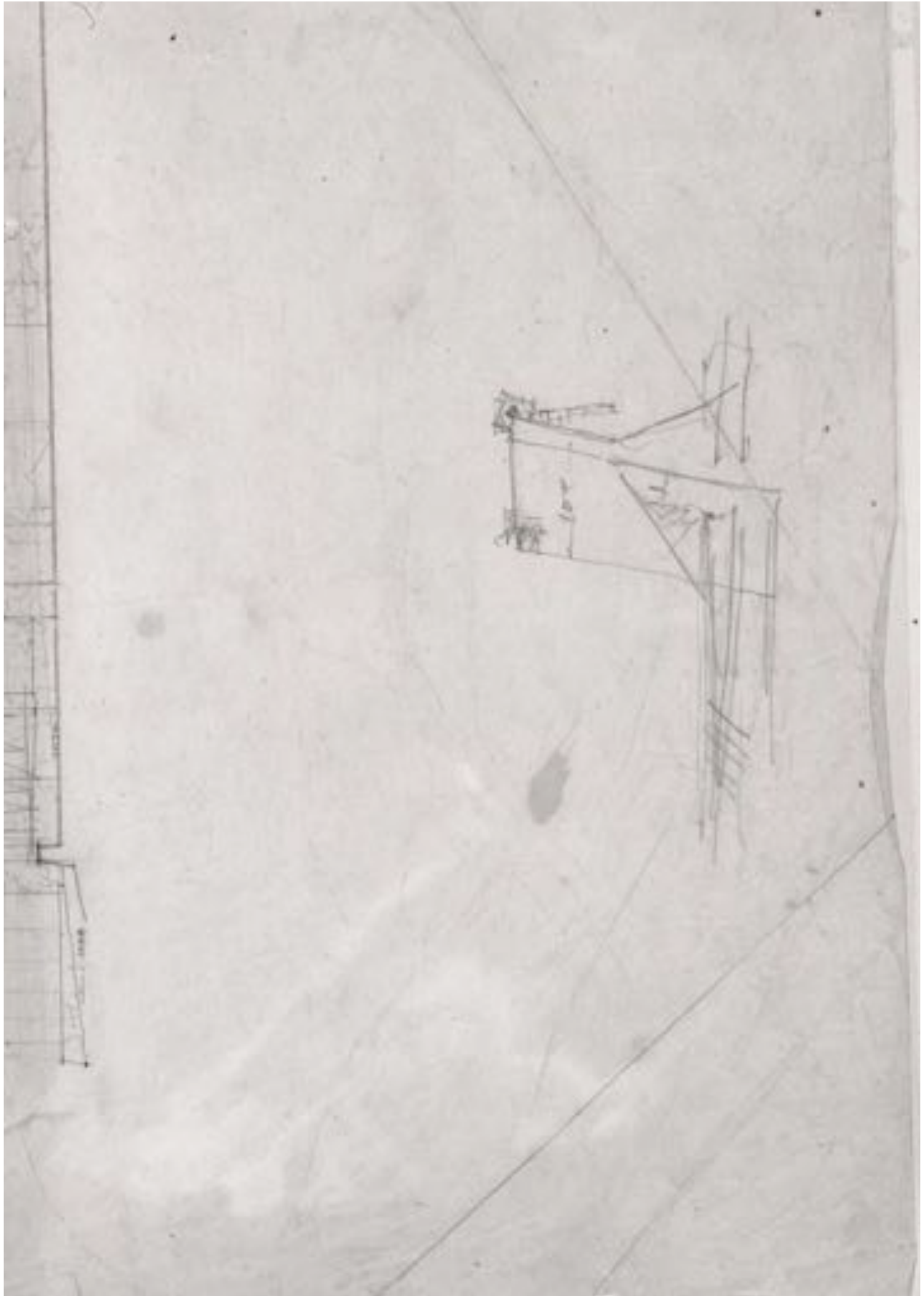


Figure B-175 - Light Tower CS Sketch (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-176 - Master Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

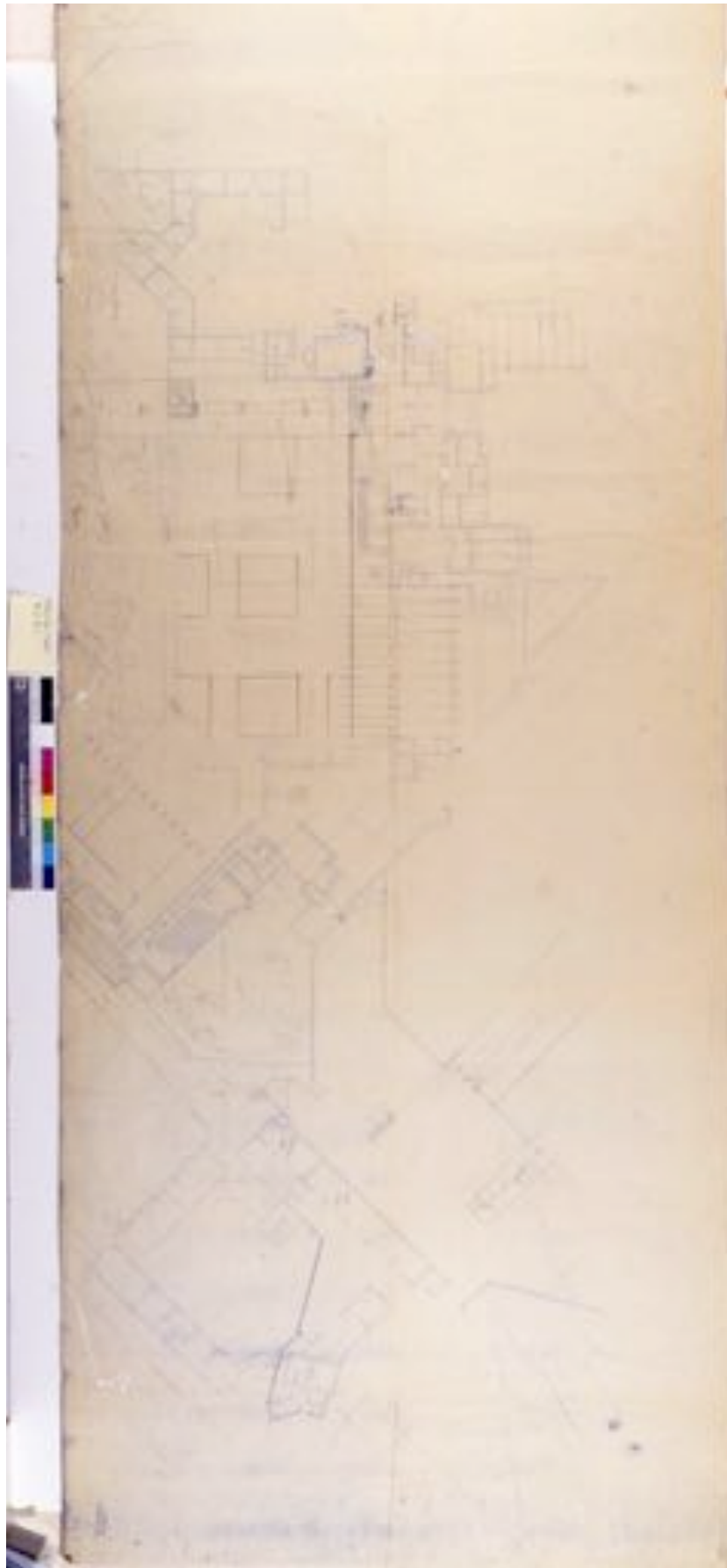


Figure B-179 - Master Plan Print (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

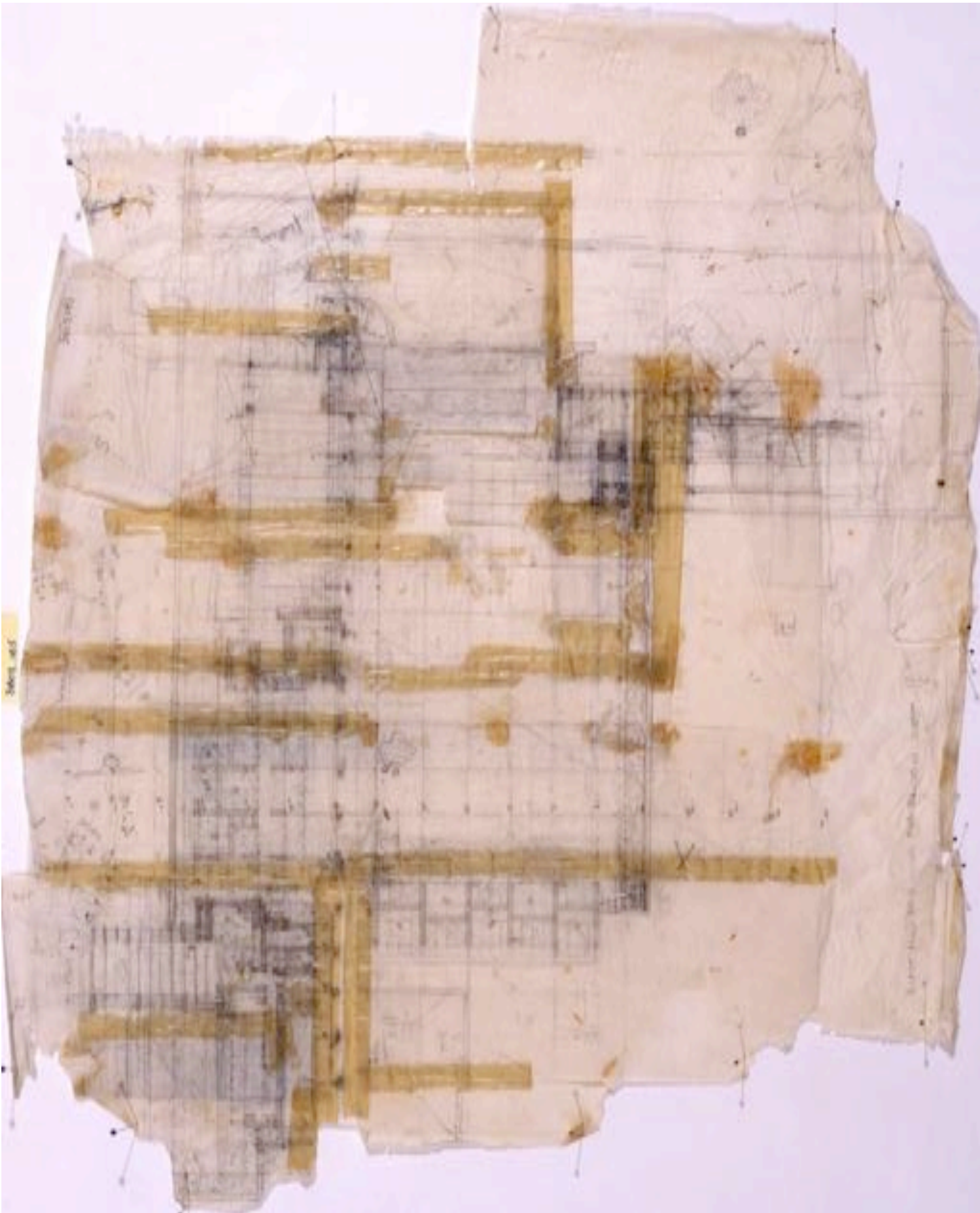


Figure B-185 - Plan, First Scheme (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

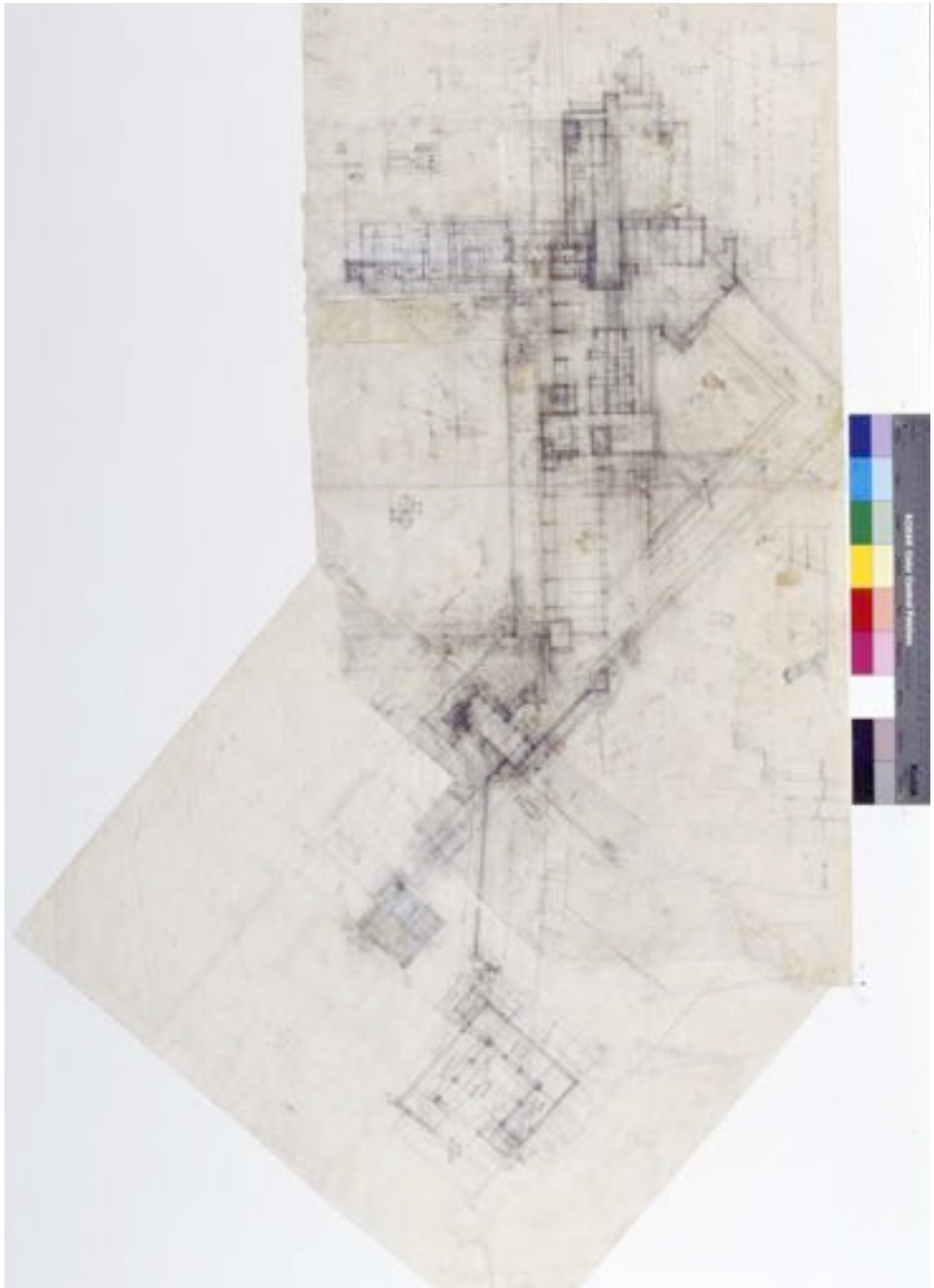


Figure B-186 - Plan, Final Scheme (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

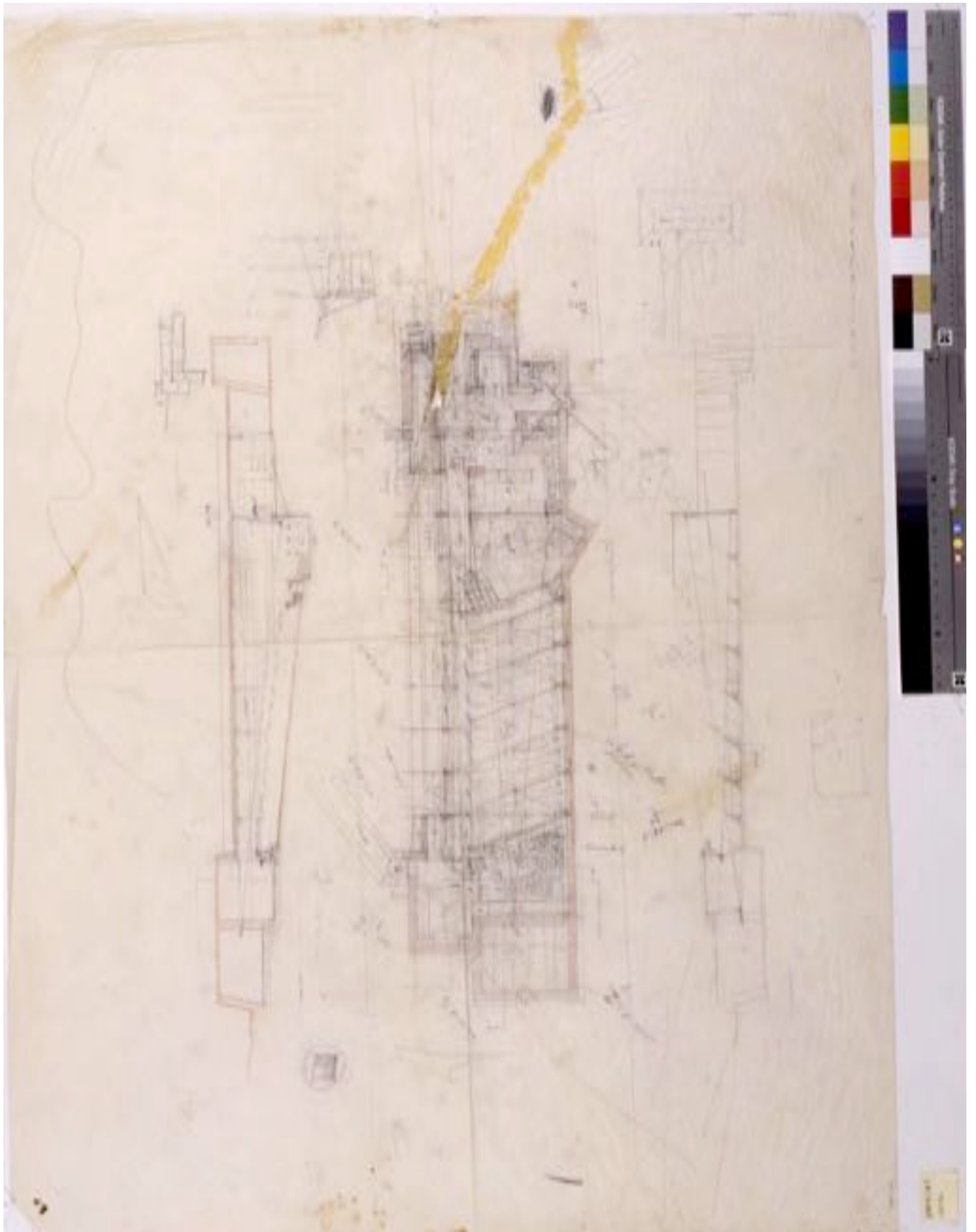


Figure B-187 - Cabaret Plan/Section (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

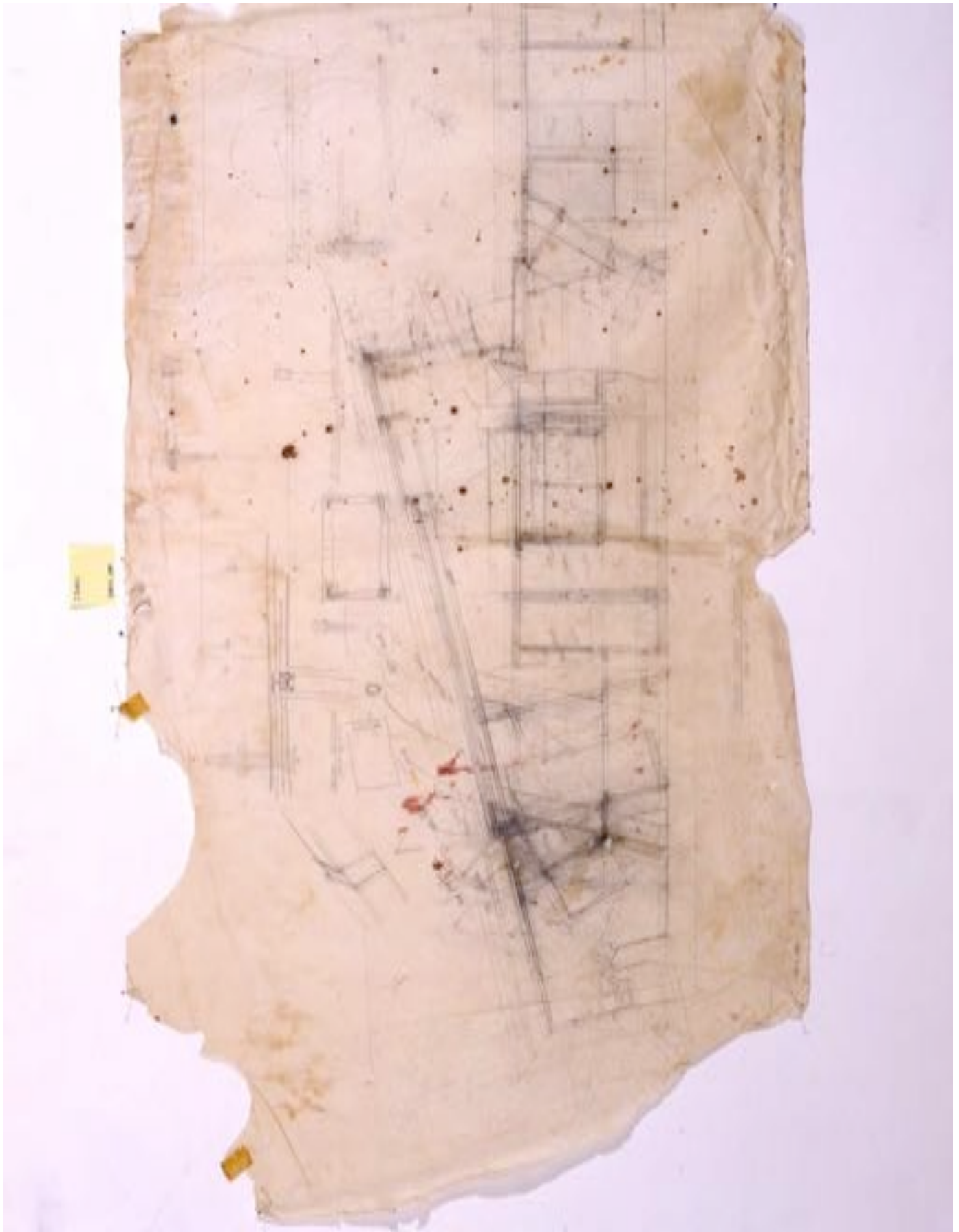


Figure B-188 - Drafting Room Trusses (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

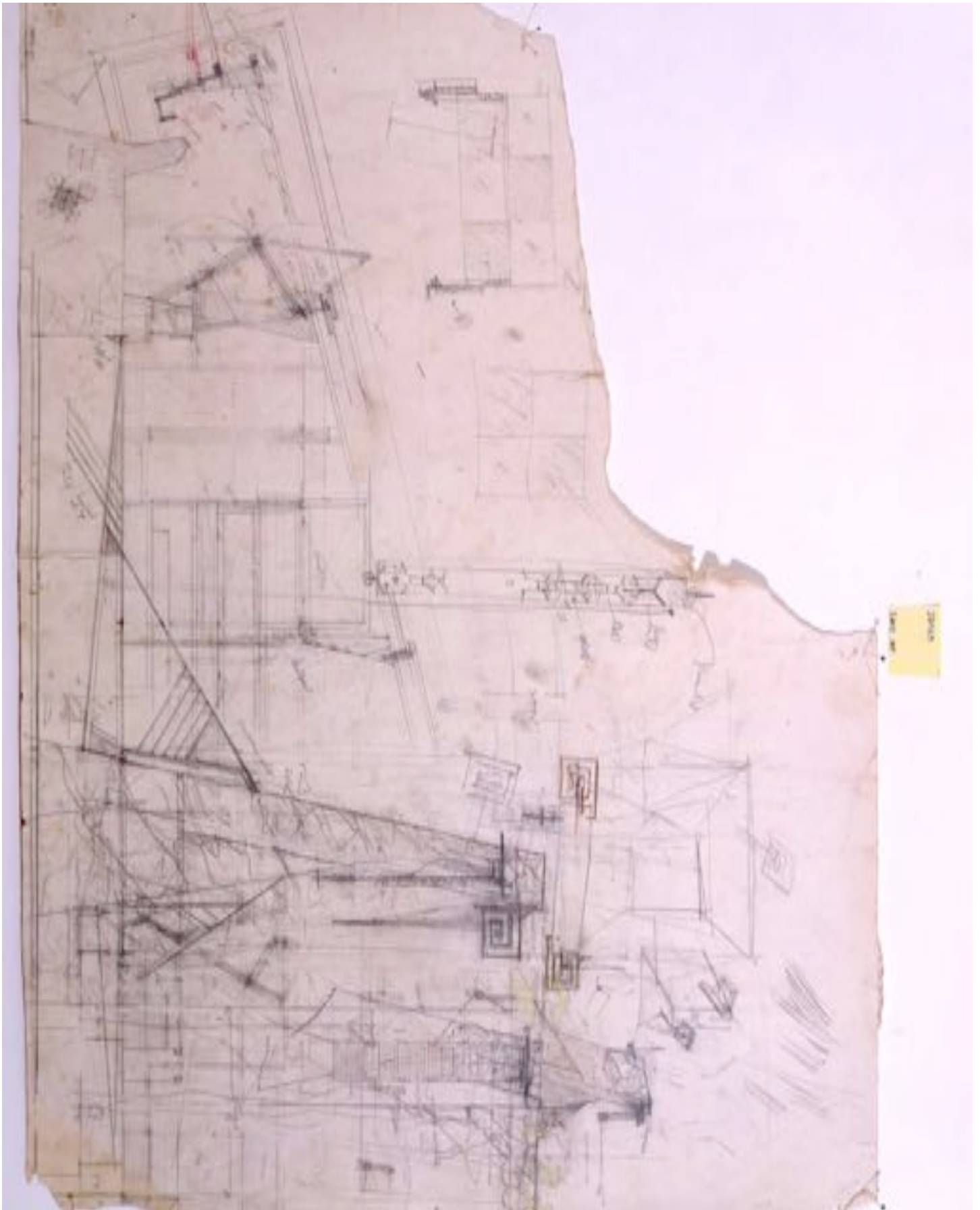


Figure B-189 - Drafting Room Truss/Light Tower (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

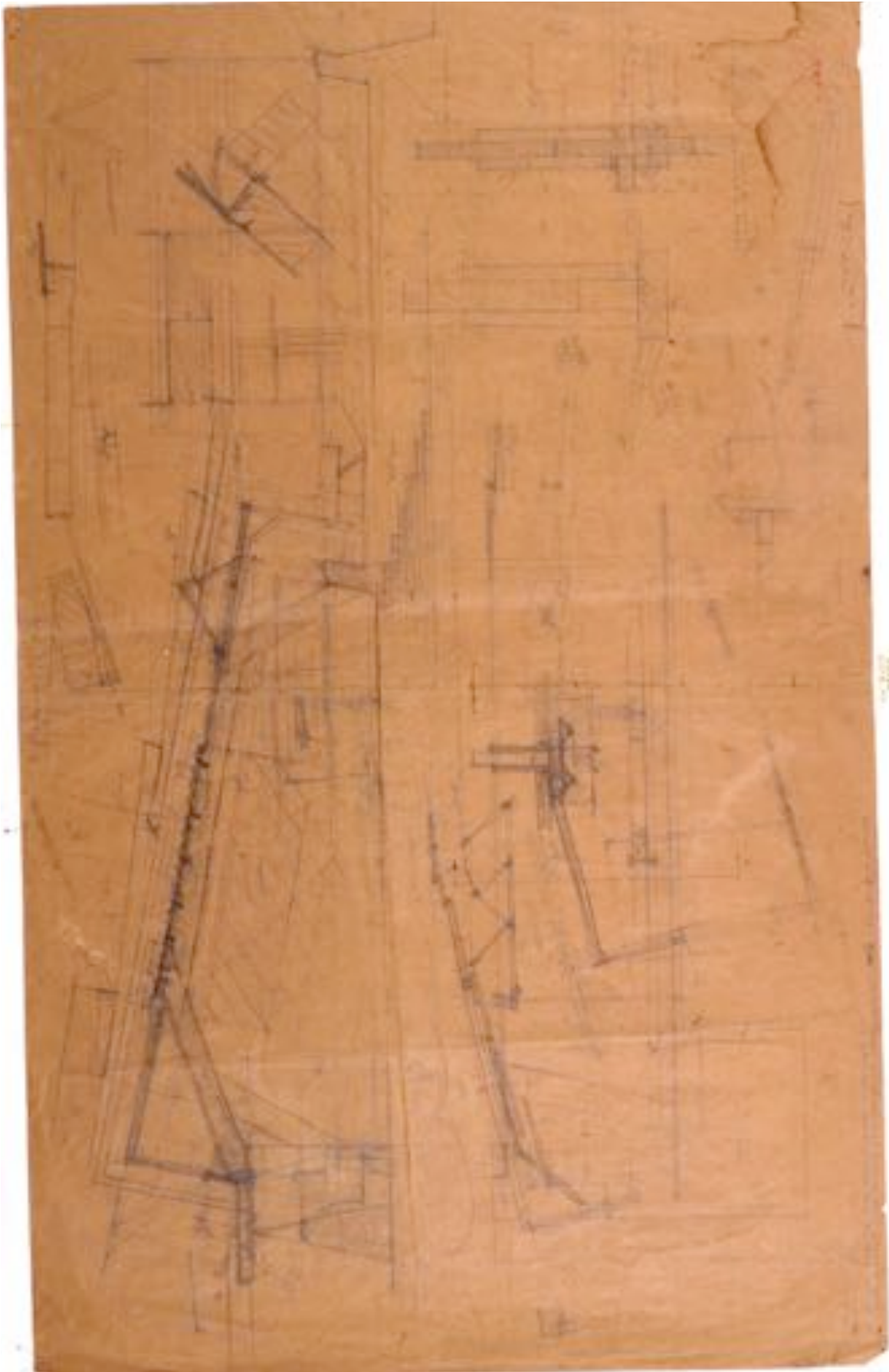


Figure B-190 - Drafting Room Section, Details (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

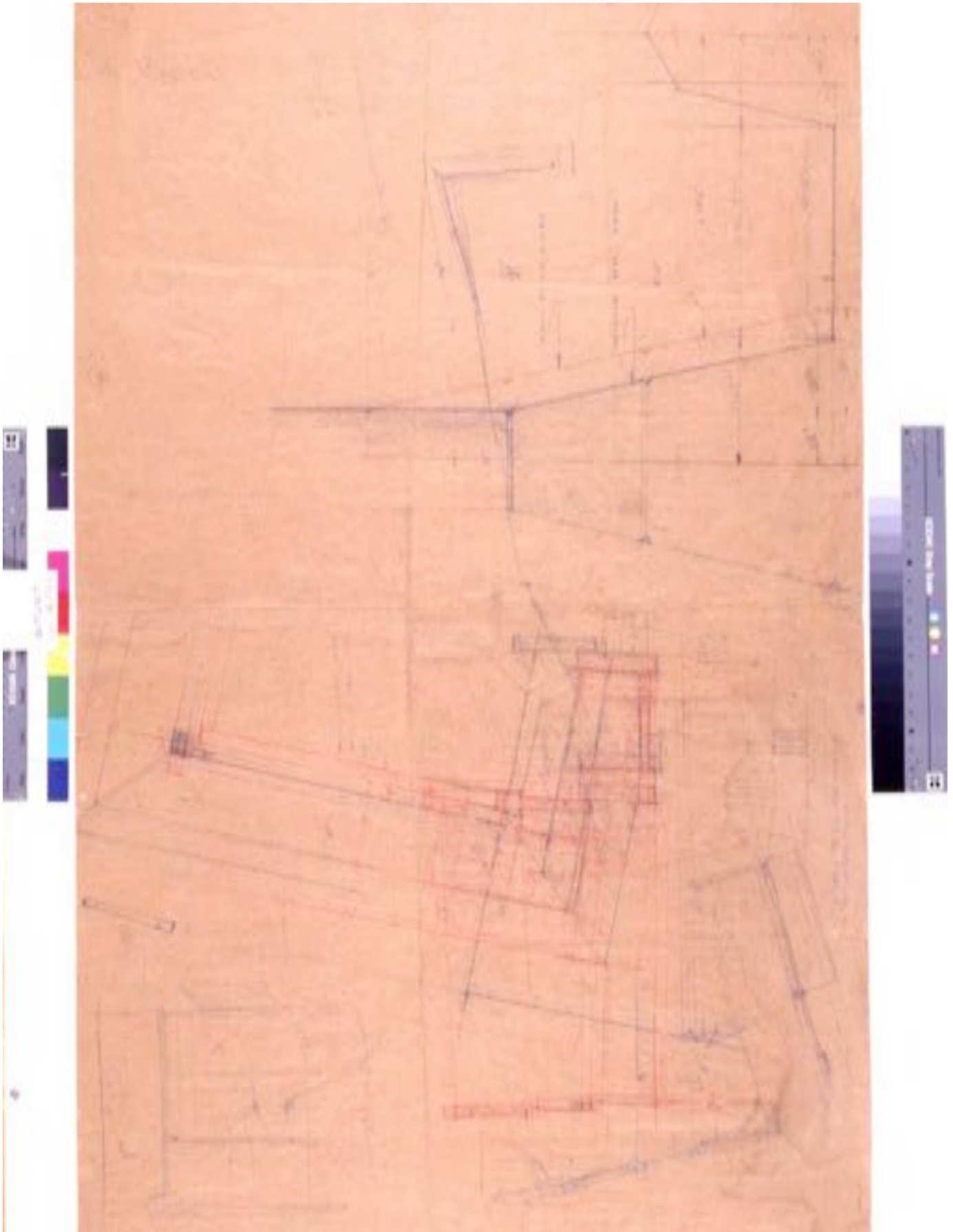


Figure B-191 - Dining Room Deck North Side (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-192 - General Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-195 - Tent Sites (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

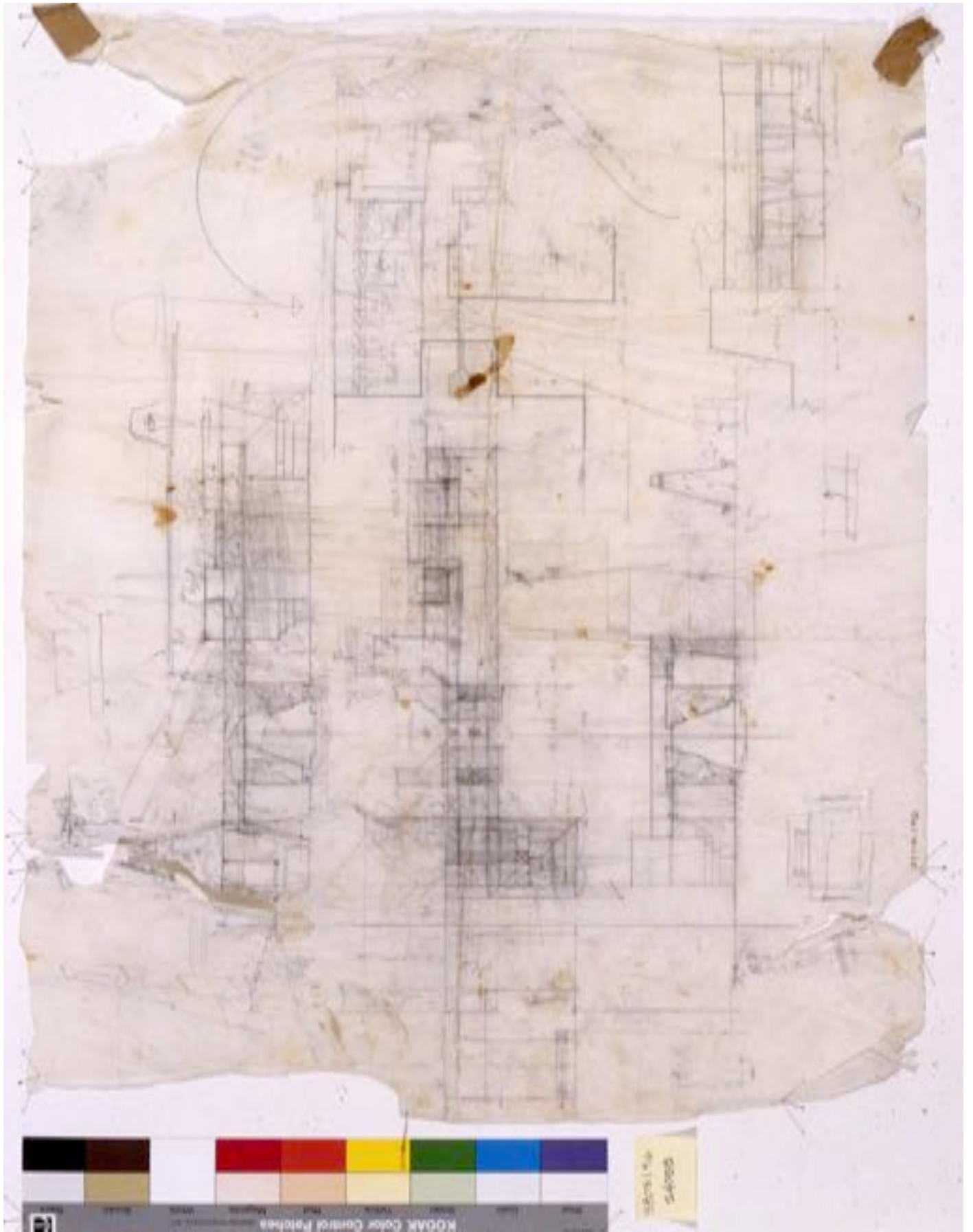


Figure B-196 - Bridge at House/Kiva (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

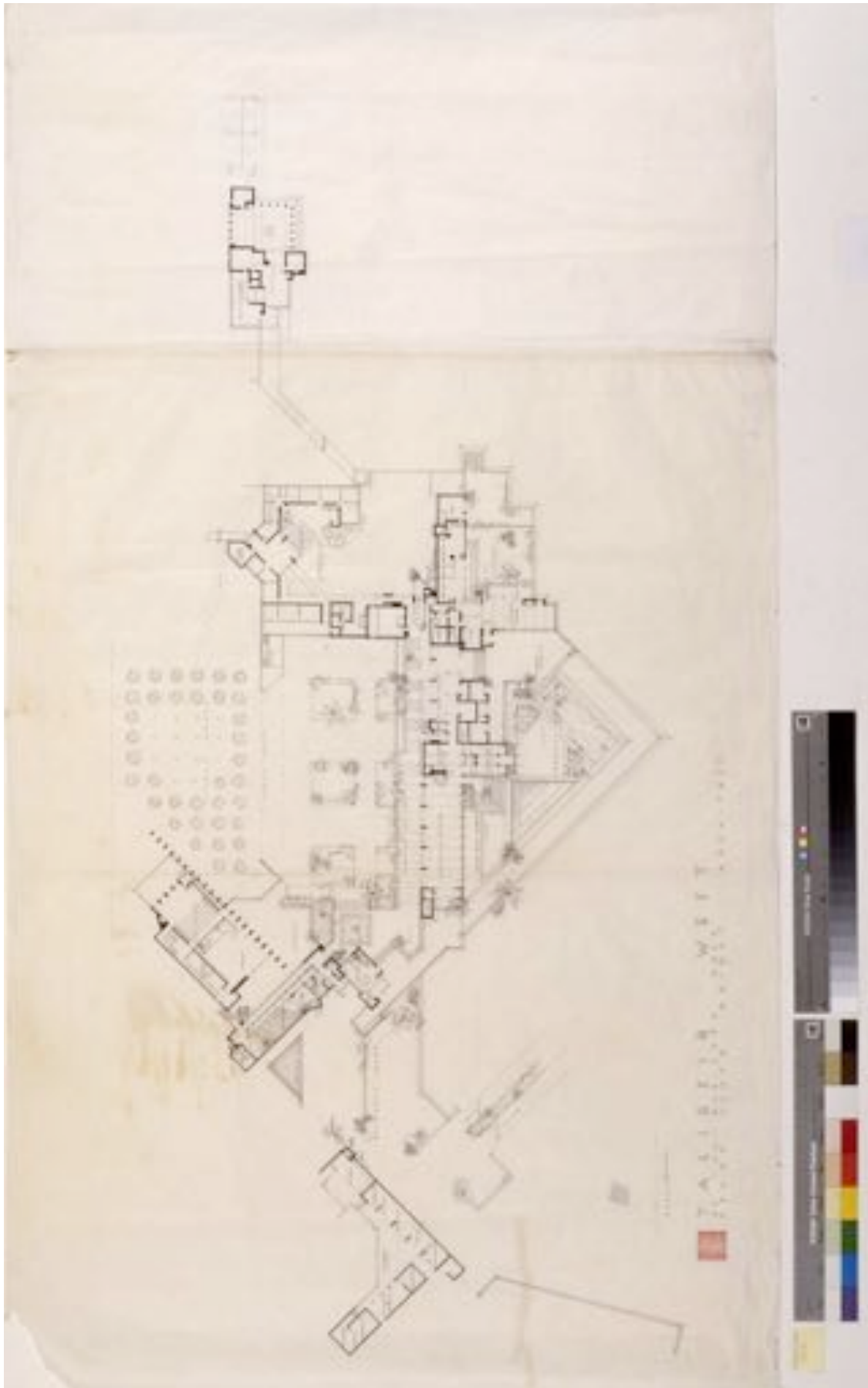


Figure B-203 - Publication Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-204 - Publication Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-206 - Office/Terrace/Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).



Figure B-207 - FLLW/OLLW Memorial (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

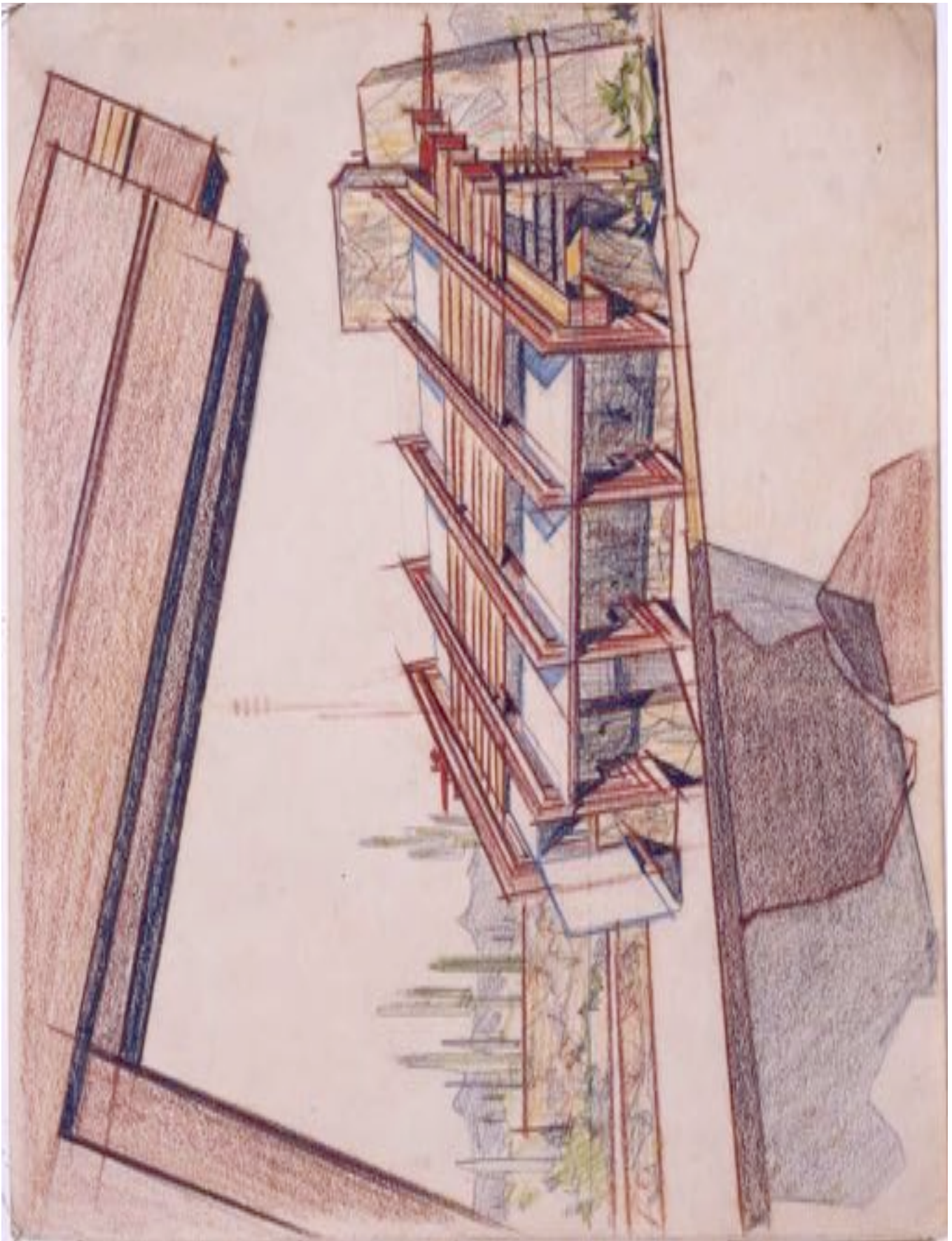


Figure B-208 - Rendering of Office by Jim Thompson (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

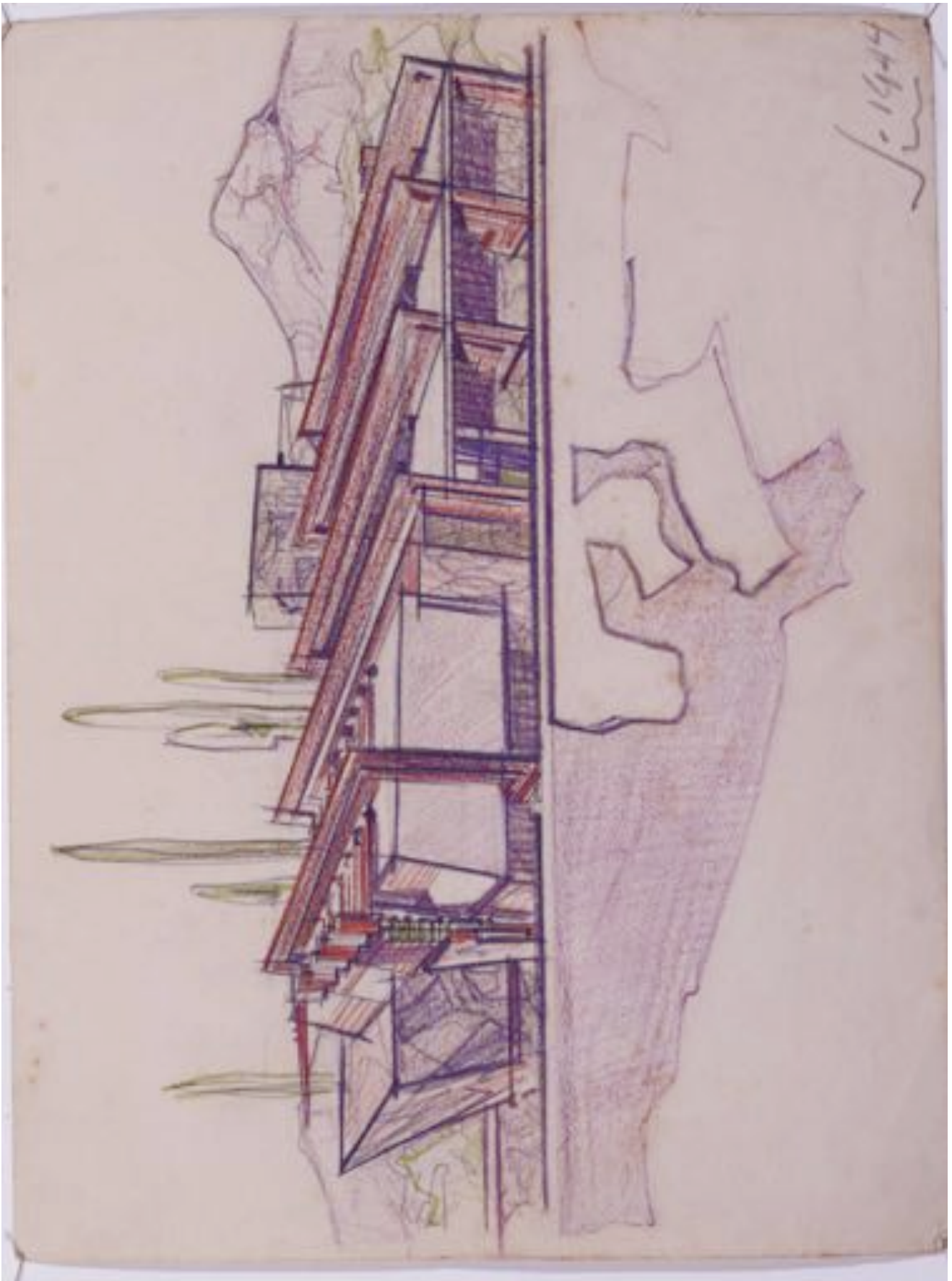


Figure B-209 - Rendering of Office by Jim Thompson (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

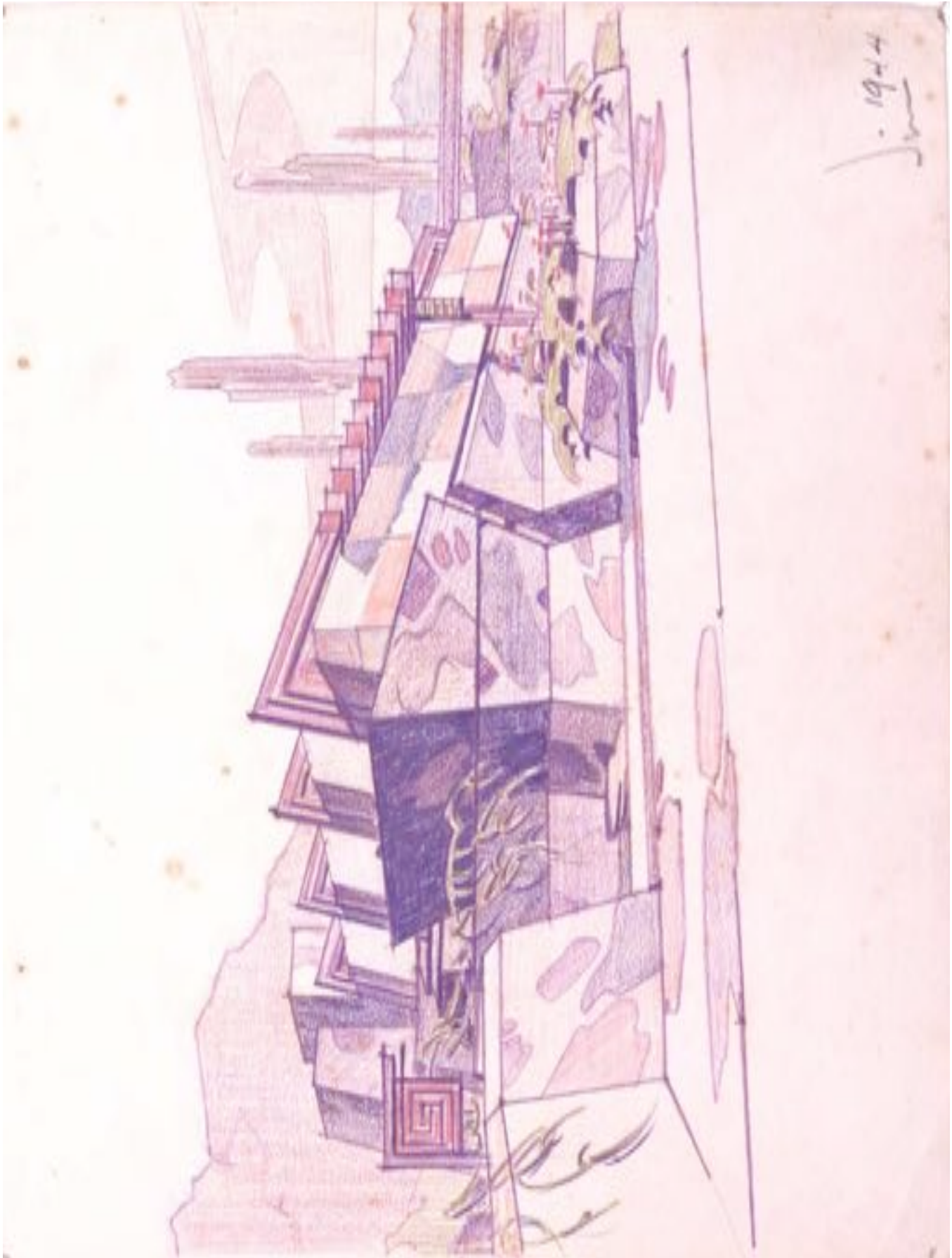


Figure B-210 - Rendering of Office by Jim Thompson (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

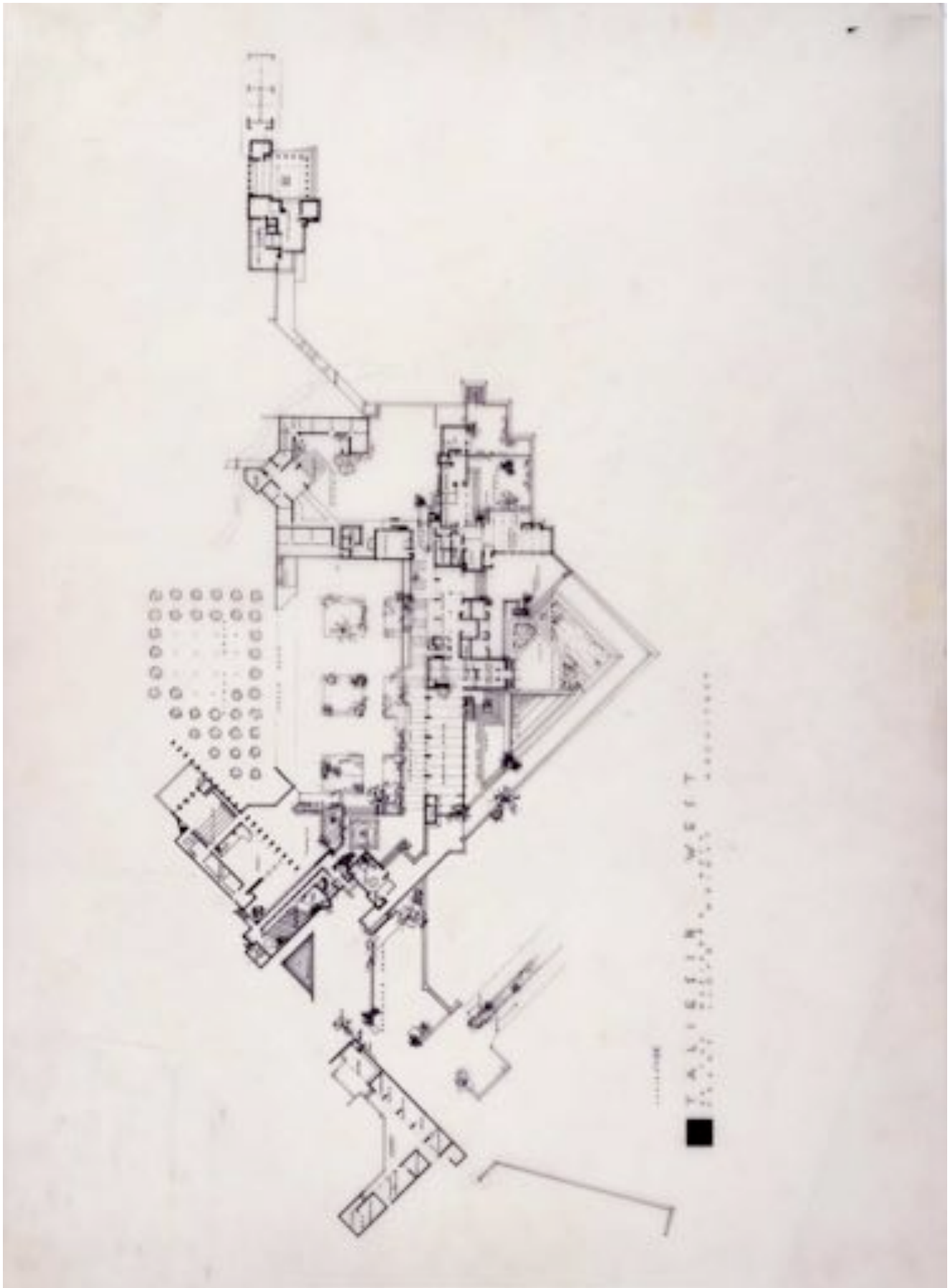


Figure B-217- Publication Plan (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).

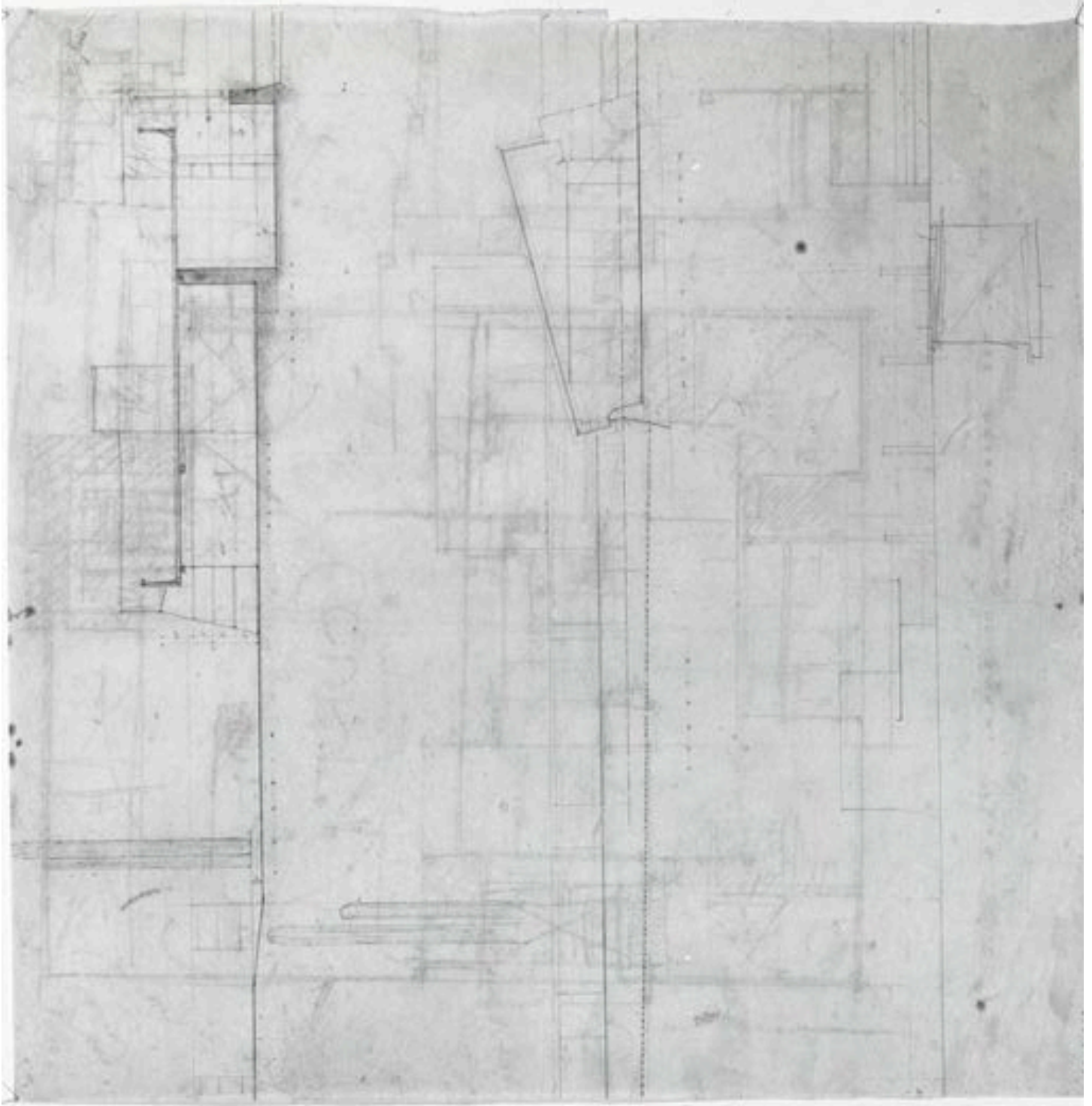


Figure B-219 - Section & Elevations (The Frank Lloyd Wright Foundation Archives, The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York).