The Analysis of a Secondary Space: Bathrooms at Frank Lloyd Wright's Fallingwater

Amber Marie Anderson
Clemson University

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THE ANALYSIS OF A SECONDARY SPACE: BATHROOMS AT FRANK LLOYD
WRIGHT’S FALLINGWATER

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Historic Preservation

by
Amber Marie Anderson
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Accepted by:
Amalia Leifeste, Committee Chair
Ralph Muldrow
Kristopher King
ABSTRACT

When observing Frank Lloyd Wright’s masterwork, Fallingwater, few people contemplate the significance of the property’s six finished bathrooms. However, similar themes which underscore the importance and wonder of the overall house itself, such as the use of technological innovation and careful attention to detail, were also employed throughout the bathrooms despite their designation as secondary spaces. This thesis examines these themes via the original process of design and the post-construction treatment of these spaces. In order to do this, architectural drawings, correspondence, family papers, visual observation, oral interviews, related project documents and both Preservation and Maintenance department manuals were analyzed. Through this analysis it was determined that the bathrooms at Fallingwater are significant, but not simply for their association with Frank Lloyd Wright and his widely acclaimed architecture. Rather, an understanding of the bathrooms’ significance was found to be related to the Kaufmann family’s prominent influence over the design of these spaces in addition to the technological and cultural relevancy of these rooms’ features. While Wright did not view the bathrooms as the most important component of the house, and thus allowed their design to be dictated by other parties, this thesis’ contemporary analysis of these spaces asserts that bathrooms play an important role in understanding the time in which they were created as well as the priorities of their creators. As popular interest in kitchens and bathrooms is growing, this research provides a pertinent yet conceptual framework for the necessity and practice of preserving these historically significant spaces. By creating a better understanding of the role these spaces play in the evolution of socio-culture and historic structures, a more effective argument might be made for their proper treatment.
I would like to thank my thesis committee for their guidance and support throughout this process. To Amalia Leifeste, whose ingenious ideas and ability to reign in my most convoluted of thoughts made this an enjoyable experience, thank you. To Kristopher King and Ralph Muldrow, thank you for your feedback and challenging questions along the way. The combination of your three members’ unique sets of ideas helped make my thesis all that it could be.

I would also like to thank the folks at Fallingwater, without whom this project would not have been possible. To Scott Perkins, thank you for your willingness to give me access to Fallingwater’s archival collection and the property well after my summer internship had ended and for answering my unending list of questions. To Lisa Ranallo, thank you for being so sweet and for helping me acquire some invaluable primary sources. To the Education Department, thank you as well for answering all of my questions and always being so kind. To the Maintenance Department, thank you for all of your help this past summer and throughout the last year. The time I’ve spent getting to know and learn from you all means the world to me.

To my family and friends, thank you for all of your support over the last two years. I would not have been able to accomplish all that I have without your love and encouragement. To my boyfriend, thank you for putting up with me when all that I could talk about was toilet heights and an architect you’d never heard of. Thank you also for traveling with me so much while I conducted the research that made this thesis possible. And lastly, thank you to my classmates who have made this crazy journey so very memorable. The late nights in studio would not have been nearly as bearable without you.
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CHAPTER ONE
INTRODUCTION, HISTORY, METHODOLOGY

In December of 1934, renowned American architect Frank Lloyd Wright made his first visit to the Kaufmann family property along the Bear Run stream in Fayette County, Pennsylvania.¹ Edgar Sr. and Liliane Kauffman were lucrative department store owners out of Pittsburgh, Pennsylvania. This couple, along with their only son Edgar jr., commissioned Wright to design a more permanent country home for them.² This house would replace the family’s 1921 Aladdin “Readi-Cut” cabin, dubbed “The Hangover,” and their store’s summer camp which had grown obsolete during the Great Depression.³ After the better part of a year had passed, Wright’s first presentation drawings were shown to Edgar Sr. on September 22, 1935.⁴ Much to the client’s dismay, Wright had perched the house atop Sr.’s favorite Bear Run waterfall. Despite the immediate shock, construction began in 1936 and both the Main House and Guest House were completed by 1939.⁵

The resultant complex, which Wright titled “Fallingwater,” is considered one of the most iconic examples of Modern Architecture in America. It appeared on the cover of Time Magazine just months after construction of the Main House was complete and has awed its nearly five million visitors since opening to the public in 1964. Wright’s design

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¹ Bear Run was originally the name of the small town in which Fallingwater was situated. It is now only the name of the stream which runs underneath the house.
² Edgar jr. never capitalized his name’s suffix, “jr.”
⁴ This date is cited in numerous works but is the subject of many contradicting stories regarding the initial design of Fallingwater. This topic is addressed further in the Chapter Two’s literature review.
⁵ The term “Guest House” often refers to both the actual Guest House and the adjoining Servants’ Quarters.
also deftly integrated his Organic Style with that of the contemporary International Style. For example, the house’s core is primarily constructed of roughly lain and locally quarried sandstone. In contrast, adjacent walls, prominent terrace parapets and trellises are formed as smooth reinforced concrete planes. Additionally, both the interior and exterior floors are finished in a waxed flagstone designed to mimic the shiny surface of the Run.

The most iconic aspect of Fallingwater is the building’s dramatic location. Innovative technology, including

Figure 1.1: January 17, 1938 Time: The Weekly Newsmagazine cover featuring Fallingwater in the background. (Edgar J. Kaufmann Papers on Fallingwater, 1909-1976, Avery Architectural and Fine Arts Library, Columbia University)

Figure 1.2: Iconic view of Fallingwater from across the Bear Run stream. (Photograph by author)
extensive cantilevering, enabled this siting and provided for a shockingly open first floor plan. To take full advantage of its location, the Main House is oriented towards the south and overlooks the Bear Run stream. It is composed of a small basement and three offset floors above, all with projecting terraces. The Guest House and Servants’ Quarters are placed further uphill to the north. From the second floor of the Main House protrudes an enclosed area known as The Bridge. The Bridge connects the Main House to a canopied walkway which curves uphill to the Guest House. The Guest House contains a one-story guest wing and a two-story servant wing with a laundry room below grade and carport to the rear (see Appendix D for full-page floor plans).

By 1955 both Edgar Sr. and Liliane had passed way, leaving Edgar jr. to inherit Fallingwater and its surrounding property.6 Despite living in New York City, Edgar jr. visited the property often and oversaw its maintenance. In 1963 he decided to follow his father’s wishes and donated the site to the Western Pennsylvania Conservancy (WPC). By 1964 Fallingwater was open for tours. While the WPC deals primarily with landscapes, the Kaufmanns felt that Fallingwater’s location and integral relationship with nature made the organization a worthy steward.

Ongoing conservation of Fallingwater has taken place throughout both the Kaufmann and WPC ownership periods. In fact, the site’s donation was “received under a deed of trust that requires the Conservancy to preserve and maintain the buildings.”7 In order to do this, numerous projects have been undertaken throughout the years

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6 Edgar Sr. had amassed large amounts of land in the surrounding areas. 500 acres were donated to the WPC in 1963, but they have since “acquired 4,500 additional acres in [their] efforts to protect both the upper and lower watershed lands” of what is now the Bear Run Nature Reserve. “Fallingwater Interpretive Manual,” Fallingwater Education Department, August 17, 2007, revised 2014.
in efforts to maintain the historic and physical integrity of the house. These projects include everything from minor repairs and maintenance to major structural renovations.\textsuperscript{8}

The most invasive procedure to date was a 2001 post-tensioning of the living room cantilevers.\textsuperscript{9} While most of the day-to-day projects undertaken at Fallingwater have never been documented, the Preservation and Maintenance Departments have made more recent efforts to maintain adequate records. For example, when the Guest House Bathroom was renovated in 2007, both photographs and a small report were created to document what was done. However, much of the information regarding in-house projects remains solely in the form of employee memories.

\textsuperscript{8} Minor projects include repointing the stonework, concrete patching, waxing the flagstone floors, etc.

\textsuperscript{9} This project was contracted out to, and overseen by, Robert Silman Associates & Wank Adam Slavin and Associates. "Preservation Timeline," Fallingwater Preservation Department, revised 2014.

Figure 1.3: Doorway chains block visitors from physically accessing bathrooms. (Photograph by author)
Under the direction of Edgar jr., the WPC designed an interpretive policy that is not entirely prescriptive. While on tour, Fallingwater staff promote the notion that visitors are meant to feel welcome in the space. This allows them to flow relatively freely from interior to exterior and they are not strictly guided along designated paths or roped off from objects or certain areas. The exception to this rule, however, is entry into the kitchen and bathrooms. These are the only rooms in the Main House and Guest House that are visible on tour but which are chained off from access.

While this inaccessibility is in part due to the small size and fragile decor of the rooms, no discussion of the creation or evolution of Fallingwater’s bathrooms is initiated by tour guides or can be found available for further reading. In fact, very little has ever been written about these spaces, their design, their function within the house, or their significance. Aside from a few anecdotes regarding material choices and minor design alterations, most of the literature on Fallingwater omits any discussion of the development of these rooms or their importance. This dismissive attitude towards bathrooms and kitchens is common practice, however. The very nature of these spaces designates them as secondary in contrast to the open and inviting primary spaces of terraces, a combined living/dining/library room, and the slightly smaller, but brightly lit and furnished, bedrooms (see Appendix A for visual diagrams highlighting these differing spaces).

This notion is underscored by the National Park Service’s definition and explanation of secondary spaces as “more utilitarian in appearance and size... [including] areas and rooms that service the building, such as bathrooms, and kitchens” and as

10 See Chapter Two’s literature review for further discussion.
“more simply detailed space[s] with restricted access.” The NPS also claims that “secondary spaces are less critical in defining a building’s importance within its period of significance” and that “because of their size, location, or function their impact is not felt as strongly when progressing through the building.” These quotes are located in two NPS documents that deal with the rehabilitation of historic interiors. Rehabilitation is a practice which often involves the selective demolition or alteration of historic elements in order to make way for upgrades. Thus, these documents are likely slanted towards the association of primary versus secondary spaces with that of more important versus less important spaces, respectively.

At Fallingwater specifically, where rehabilitation is not regularly the topic of discussion, several of the secondary spaces may in fact relate to the definitions described above. For instance, two of the four bathrooms in the Main House can only be accessed via private bedrooms and thus have “restricted access.” Current interpretation practices only compound the issue. Additionally, all of the secondary spaces at Fallingwater can be defined as service-related in some regard. However, in contrast to the NPS’s claims, one might question if predetermined notions of significance and spatial relevancy for the rest of the complex might also be attributed to these spaces upon closer investigation. Thus,

this theses will in part address the question of significance in Fallingwater’s secondary spaces.

Mirroring the lack of information regarding these spaces at Fallingwater is the scarcity of literature on the notion of “secondary spaces” in general and in regards to Frank Lloyd Wright’s larger cannon of work. The bulk of practical instruction regarding what to do with these areas resides in NPS documents like those mentioned above. In terms of theoretical discussion, some analyses have been made regarding spatial hierarchies and the difference between “served” versus “servant” spaces. These will be discussed at more length in Chapter Two. However, little precedent has been set in terms of discussing the design of such spaces in historically significant places and their treatment through time.

As a result, this thesis asserts that Fallingwater’s secondary spaces deserve a closer look in terms of their design intent and treatment, both compositionally and contextually, as well as how this plays into their significance. In order to conduct this investigation, research has been geared towards the following question: How does an understanding of the original conception of the secondary spaces at Fallingwater and the post-construction treatment of these specific spaces inform a reexamination of their significance today? For the purposes of this thesis, focus will be centered on Fallingwater’s six originally designed bathrooms.13 The choice to omit discussion on the house’s kitchen is based upon a commitment to coherency, readily applicable

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13 It is unclear whether or not there was always a bathroom in the basement of the Main House, and whether or not Wright had any involvement in its design. This is also true for the bathroom in, what is now referred to as, the “Laundry Room,” located underneath the Servants’ Quarters. These two spaces will be omitted from discussion, however, as they are not in character with any of the other bathrooms in the complex; A small utility sink is also located within cabinetry at the top of the third floor interior stair in the Main House. While this space is finished similarly to the bathrooms in question, its minimal spatial presence and lack of additional fixtures omit it from the topic of discussion as well.
comparisons, and a limited time frame. Similar analysis of the kitchen is enthusiastically recommended but is outside of the scope of this work.

**Methodology**

The first step in analyzing the original conception of Fallingwater’s secondary spaces was to review the body of literature on Wright’s design process and the design of Fallingwater as a whole. These works are discussed at great length in Chapter Two’s literature review. General conclusions can be made, however, that while the development of these spaces appears to have received a lesser degree of input by Wright, the preexisting evidence was inconclusive. Analysis of primary sources regarding Fallingwater specifically thus provides a lens through which to study Wright’s, his apprentices’, and the clients’ involvement throughout this process as well as the evolution of the bathrooms throughout the design period. The primary sources used for the analysis are housed in two repositories: the Avery Architectural and Fine Arts Library at Columbia University in New York City and Fallingwater’s own archival collections in the Artifact Storage Building on site in Mill Run, Pennsylvania.

Before assessing the significance of these spaces, Chapter Three contains the findings of visual observation of both Fallingwater’s floor plans and the composition and finishes of the various rooms throughout the house. This observation was used to determine that a visual and functional dichotomy exists between the primary and secondary spaces. This dichotomy resurfaces in the examination of the original design process for the creation of Fallingwater’s bathrooms, located in the second part of Chapter Three, in that these secondary spaces were created by different means than that of the primary spaces. In order to conduct this examination, this research made use of
correspondence, architectural drawings, building specifications, the Kaufmann family papers, Frank Lloyd Wright’s own writings on architecture and design, and secondary sources as analyzed in Chapter Two.

Correspondence regarding Fallingwater is located in the Edgar J. Kaufmann Papers and the Frank Lloyd Wright Foundation archives, which are both housed at the Avery. This correspondence is between members of the Kaufmann family, Wright, Wright’s apprentices, and Fallingwater construction contractors. The contents of this correspondence was used to shed light on the decisions that were made regarding Fallingwater’s conceptual design and actual construction. As will be seen in Chapter Three, these insights helped to determine that the Kaufmann family had the greatest influence on the design of Fallingwater’s secondary spaces.

Fallingwater’s architectural drawings, which are also located in the Frank Lloyd Wright Foundation archival collection at the Avery, were utilized alongside Wright’s building specifications for the house in order to determine the evolution of these spaces throughout the design period as well as the detail and care with which they were conceived. A comparison will be made in the second half of Chapter Three between the number of iterations and detail present in the bathroom drawings versus those of more primary spaces at Fallingwater. An assessment was also made of Wright’s apprentices’ involvement in the creation of these spaces via their assistance with the implementation of the clients’ requests and the alterations of architectural drawings. These two points helped to determine that Wright was more controlling of the design of primary versus secondary spaces.

Additionally, the papers located in the Edgar J. Kaufmann collection include a variety of documents related to the design and construction of Fallingwater. These
papers include material invoices, bathroom product catalogue excerpts, price quotes from plumbing fixture companies, drawings, and post-construction articles and other printed materials. These documents provided a means of identifying and examining the processes for, and companies from, which Fallingwater’s bathroom features were selected. These selections illuminate the role that Fallingwater’s bathrooms still play in understanding the development of early twentieth-century commercial and technological industries in relation to utilitarian fixtures and finishes.

The first step in understanding the significance of these spaces was to review works on the idea of a secondary space in general and available analyses of these spaces in Wright’s larger cannon of work. While this, too, will be discussed further in Chapter Two, it was observed that there has been a recent shift in understanding. While

Figure 1.4: Edgar Sr.’s Bathroom contains Kohler fixtures and cork finishes typical of all of Fallingwater’s bathrooms. (Photograph by author)
earlier works tend to focus on superficial identification of secondary spaces and their furnishings, later ones transition from analyses of spatial hierarchies to a more recent examination of larger sociocultural meaning both between different types of spaces and within the secondary spaces themselves.

It was determined that Fallingwater’s bathrooms provide a quintessential example of how secondary spaces can be significant in their own right as well as in their relation to the rest of an historic site’s narrative. Despite the obvious significance which can be attributed to these spaces solely based upon their location in such a famous Frank Lloyd Wright design, the importance of these spaces is found in their relation to client requests and their representative nature of historic systems and features within a building. At Fallingwater, the design of bathrooms as secondary spaces will be shown as representative of not only a lesser degree of involvement by the primary architect but, more importantly, by a higher degree of interest and control by the client. While Wright may not have prioritized these spaces, the family did. This concept also merges with the selection of Fallingwater’s bathroom fixtures and finishes, decisions largely made by the family, which were demonstrably novel for their time. Not only do these design selections represent a mode of fashion but they also display the technological developments and limitations characteristic of the period during which these spaces were created.

Chapter Four examines the post-construction treatment of Fallingwater’s bathrooms. This section looks at known alterations, conservation practices, physical contents, and use. In order to identify historic practices and specific work done in the bathrooms over time, Fallingwater documents and photographs were assessed alongside the content of five oral interviews. In addition to photographs, the documents housed at Fallingwater include interpretation and preservation guides and manuals, a preservation
timeline, project documents, architectural
drawings, and correspondence. These
items were used to create a general
understanding of how Fallingwater’s
bathrooms have been treated with less
focus on the retention of historic fabric
than the house’s more primary spaces.
In some ways this notion reflects a
prioritization of primary spaces but it
is also indicative of an early lack of
familiarity with general preservation
principles.

Oral interviews provided
invaluable information on the historic
and current practices undertaken at Fallingwater. This includes not only maintenance
work done to the various rooms, but also the composition of historic and current sewer
systems, interpretation procedures, and general opinions regarding the differentiation of
treatment in primary versus secondary spaces. As accurate documentation records do not
exist for all of the conservation work done at Fallingwater, these interviews provided the
most in-depth evaluation of the material authenticity of the spaces. Additional anecdotes
regarding original design features were also derived from these interviews and will be
discussed in Chapter Three. Oral interview participants included these Fallingwater
employees: Director Lynda Waggoner, Director of Preservation Scott Perkins, Senior
Maintenance Specialist Albert Ohler, Public Tour Manager Denise Miner, and Education Programs Coordinator Amy Humbert.

Oral interviews and visual observation also provided a means of analyzing the current and historic function of Fallingwater’s bathrooms. In terms of interpretation, the varying roles that these spaces have played throughout the years was examined in relation to their access and level of acknowledgment on tour. Additionally, a discussion of the bathrooms’ current content will take place. This content includes both curatorial items and miscellaneous housekeeping supplies.

Following the aforementioned assessments of significance and post-construction treatment, recommendations are provided in an attempt to properly guide the care of these specific secondary spaces. These recommendations are divided into three tiers, organized by level of difficulty in regards to current practice as well by degree of preservation-mindedness. Though these tiers contain information specific to Fallingwater they are made applicable to other historic sites. This further application touches upon the difference between Fallingwater’s ability as a house museum to retain fabric without necessarily retaining said fabric’s operability and the necessary upgrades or alterations that other historic places must consider.

Context

This thesis surfaces at a particularly important time in our contemporary fascination with bathrooms and kitchens. A growing interest in the cultural significance of these spaces is evinced by the popularity of house tours, both public and private. A more threatening phenomena, however, is the long-standing tradition of renovating these spaces more prevalently than others. Despite an understood significance of
Wright’s work, there are mixed feelings towards altering his secondary spaces. A 2007 Washington Post article on the frivolity of Fallingwater’s design, for instance, brushes the kitchen off as something “you would certainly want to change” when compared with today’s standards of livability.14 Contrarily, while an Interior Design article from 2000 describes the careful balance between upgrading and maintaining integrity when renovating Wright-designed bathrooms, an earlier Los Angeles Time’s article describes the choice one must make between remodeling and adopting a minimalist lifestyle in a Wright home.15 While these inclinations might be attributed to the progression of technology and an evolving definition of modern comforts, they can ultimately add up to a loss of historic fabric and design integrity.

Contemporary attitudes towards secondary spaces, coupled with the NPS’s cursory advice on the subject, have done little in the way of preserving these spaces. As the concept of a secondary space has been relatively unexplored in the historic preservation field, this research will provide both a lens through which to examine the significance of a secondary space via its original design and a conceptual framework for how to properly treat these spaces in the future. Only by developing this understanding of why secondary spaces are important can we begin to truly rally for their preservation.

CHAPTER TWO
LITERATURE REVIEW

The sheer volume of literature produced on the topic of Frank Lloyd Wright is astonishingly monumental. From the scandal surrounding his numerous affairs and allegedly turbulent client relationships, to his prolific and ingenious development of the Prairie, Organic, and Usonian styles, there is no shortage of topics from which critics and admirers alike may choose.¹ As a result, the large body of literature has a wide ranging breadth and depth. Although not an all-inclusive list, this thesis will assess works categorized as the following: first-hand accounts by friends and apprentices of Wright, related articles and article collections (which were often produced for museum exhibition purposes), comprehensive histories of Wright and his work, and Wright’s own musings on architecture and design. These accounts range throughout the twentieth century and encompass a wide variety of topics. In this attempt to understand the greater scholarly understanding of Wright and his architecture, the following literature review chapter will focus on the secondary sources of the first three categories. The fourth will, however, be examined in later chapters of this thesis.

Although the aforementioned body of literature would be a task in itself to review, the purpose of this chapter is to understand what has been written regarding: the concept and treatment of a secondary space, Frank Lloyd Wright’s treatment of secondary spaces, Wright’s actual design processes, and the design of Fallingwater itself. The analysis of these four topics will demonstrate that a current gap exists in the literature regarding

¹ It should be noted that Wright’s Prairie, Organic and Usonian styles are not purely distinct from one another but rather contain a large degree of overlap.
the context in which Fallingwater’s secondary spaces were developed and why they are important. Given the extensive amount of written work on both Wright and Fallingwater, the two sections which address their respective design processes are organized by the purpose-based categories outlined in the previous paragraph.

Secondary Spaces

The first topic reviewed, that of secondary spaces in general, was not examined in the context of Frank Lloyd Wright’s work specifically. This concept of secondary spaces is not a new idea. In *The Architectural Project*, a 2003 discussion of the novel compositional nature of Modern design, scholars Alfonso Corona Martinez and Malcolm Quantrill touch upon the hazy origin of the spatial hierarchy of rooms. Martinez and Quantrill explain that the concept originated as early as architect Andrea Palladio’s discussion of the necessity of small, medium, and large rooms. They note that Palladio instructed that “small service rooms” be located near more primary spaces in order to house items and functions that are infrequently used and seen as “other hindrances”. The authors make use of a more recent example, that of Louis Kahn, in order to further define the composition of secondary spaces. While they argue that there was a shift in spatial organization in the twentieth century away from the hierarchical nature of previous years, they claim that Kahn reinstated this hierarchy under the gaze of a “functional” necessity. Using the Kahn example, Martinez and Quantrill describe his servant spaces, as indicative of all secondary spaces, as “merely useful” versus the more “aesthetically ruled” primary spaces.

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3 Martinez and Quantrill, *The Architectural Project*, 146.
While Kahn coined the spatial dichotomy as “served versus servant” spaces, other figures have explored this topic under the guise of private versus public and how this proscribes access and circulation patterns. Architectural historian Cary Carson explores these varying levels of access and resultant circulation patterns in regards to Colonial Williamsburg in his “Architecture as Social History” chapter of The Chesapeake House (2013). Carson describes the pivotal role that architecture plays in communicating where certain individuals and activities should be located. He claims that “entrances, interior doorways, staircases, and corridors” are a primary means of this communication and that they dictate “social zones” within a building.4 The explanation for this is that by providing various circulation routes, individuals of varying classes are separated from interaction or even view. While this analysis harkens more to the social history of class, it also relates to the general idea of spatial hierarchies in that it translates into the differing physical treatment of secondary versus primary spaces. This is in relation to an almost ubiquitous simplification of design in these spaces.

Despite the explorations described above, few authoritative sources have been written in regards to actually preserving secondary spaces. The National Park Service (NPS) provides the primary means of definition and instruction for these spaces yet it does not seem to demonstrate complete recognition of the topic. The only mention of secondary spaces by the NPS is in the form of three Preservation Briefs and one additional document in the Technical Preservation Services section of the United States Department of the Interior. Two of these documents have to do with rehabilitating historic interiors, one is regarding ADA compliance, and one provides instructions for identifying

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visual aspects of architectural character. “Planning Successful Rehabilitation Projects: Changing Secondary Interior Spaces in Historic Buildings” and “Preservation Brief 32: Making Historic Properties Accessible” demonstrate similar themes of identifying secondary spaces as less important to the overall significance of a building. While the former explains that these spaces are less experienced in typical circulation patterns due to their “size, location, or function,” the latter simply implies that these spaces and their finishes should be identified in order to assess significance. The two articles also share the understanding that if modification of an historic structure is necessary, changes should be confined to secondary spaces. Types of modifications might include installing an elevator or additional staircase or removing partition walls. This confinement to secondary spaces is understood to have less of a detriment to important historic fabric and also benefits from the lower visibility of the spaces.

“Preservation Brief 18: Rehabilitating Interiors in Historic Buildings: Identifying and Preserving Character-Defining Elements” provides the best definition of a secondary space while also continuing with the theme of minimizing their importance. The NPS loosely defines these spaces as “...generally more utilitarian in appearance and size than primary space[s]. They may include areas and rooms that service the building, such as


6 Neo-environmentalist author Steward Brand’s How Buildings Learn: What Happens after They’re Built examines the hierarchy of these types of modifications. Brand categorizes them into six layers, or the “six S’s,” of site, structure, skin, services, space plan, and stuff. These layers range from an “eternal” site to stuff “that twitch[es] around daily to monthly.” The types of modifications that the NPS recommends take place within secondary spaces can be identified as part of Brand’s services and space plan layers. These layers comprise the second and third most often altered layers within a building. Therefore, according to Brand’s logic, adherence to the NPS’s recommendations means that secondary spaces will likely be stripped of their contents and orientation every ten or so years. Stewart Brand, How Buildings Learn: What Happens after They’re Built, (New York: Penguin Books, 1995), 13.
bathrooms, and kitchens.” A glaring contradiction, however, takes form in this Brief. While it notes that the “visible features of historic systems – radiators, grilles, light fixtures, switchplates, bathtubs, etc.” are important to the character of a building, it also states that “secondary spaces tend to be of less importance to the building and may accept greater change in the course of work without compromising the building’s historic character.” What the NPS does not account for is the fact that many of these important historic systems are in fact prominent features of secondary spaces – i.e.: bathtubs in bathrooms or light fixtures as varying between kitchens/bathrooms and primary spaces. This conflict begs the question as to whether or not the importance of historic systems bridges the supposed gap between the character of primary versus secondary spaces.

A similar contradiction is found in “Preservation Brief 17: Architectural Character – Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character.” While the brief admits that secondary spaces may very well be important “from the standpoint of history or because of the family activities that occurred” in them, they are not “perceived as important to the visual character of the building.”

In essence, the NPS is discounting the importance of social history in these spaces by using the term “visual character” as rationale. The NPS does not, however, define what the “visual” part of the term encompasses. Is there a distinction from all things visible and just the most readily visible (and thus primary) spaces within a building? This also presents the question as to how big of a role visibility plays in determining architectural

character. These questions open a whole new facet of research topics. However, a general conclusion can be made that while the NPS provides a helpful definition of secondary spaces, their understanding of how these spaces fit into a greater understanding of significance is lacking.

All of the literature reviewed in regards to the concept of secondary spaces is relatively recent. This notion continues in the form of two extremely recent publications regarding the cultural importance of bathroom development. While these works deal specifically with bathrooms, they signify a transition in scholarly research towards a greater interest in the sociocultural significance of secondary spaces. Alison K. Hoagland’s “Introducing the Bathroom: Space and Change in Working-Class Houses” (2011) discusses how the development of the bathroom affected a gamut of ideas including notions of cleanliness, status, circulation, design, and convenience. Though her focus is to assess developments through time and their respective societal changes, she touches upon several important ideas that will resurface in greater detail in the body of this thesis. The first relates to external influences on bathroom design. While discussing the ideal composition and finishing of bathrooms in the early twentieth century, Hoagland states: “Reformers, designers, and advertisers urged sanitary finishes, convenient placement, and unified designs...” This statement reveals the multifaceted nature of modern bathroom design, acknowledging that sociological, architectural, and commercial

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9 Only Alison K. Hoagland’s “Introducing the Bathroom” is discussed here. The second work, O Meltem Gurel’s “Bathroom as a Modern Space,” is equally as important but is written from the perspective of Turkish culture and is thus omitted from the discussion. O Meltem Gurel, “Bathroom as Modern Space, The Journal of Architecture 13, no. 3 (2008): 215–33.

entities were all playing important roles in the development of this secondary space. Hoagland also attests that bathrooms were a primary avenue of modernizing homes in that they “[gave] them the latest technologies and [that bathrooms were given] a new, dedicated space.”\footnote{Alison K. Hoagland, “Introducing the Bathroom: Space and Change in Working-Class Houses,” \textit{Building & Landscapes} 18, no. 2 (2011), accessed September 20, 2014, \url{http://go.galegroup.com/ps/i.do?id=GALE%7CA275576174&v=2.1&u=cofc_main&it=r&p=AONE&sw=w&asid=b3ce7b2352b811b93da-896ce8ef70231}.} This acknowledgment is important in that it both contradicts and reaffirms two of the previously discussed National Park Service stances. While there is no contention that a bathroom is a secondary space, Hoagland’s understanding that they played a pivotal role in a larger cultural movement does contest the NPS’s assumption that secondary spaces are often not important to the building’s overall significance. Hoagland’s acknowledgment of modern technologies also relates to the NPS’s instruction to identify and preserve “historic systems” – which often manifested in the form of fixtures. In this case, however, there is an agreement. Both authors understand the importance of these systems and features.

\textit{Frank Lloyd Wright’s Secondary Spaces}

In contrast to the analytical literature on secondary spaces, which is largely confined to the twenty first century, accounts and analyses of Wright’s treatment of secondary spaces spans a longer time frame. This body of literature first surfaces in a 1963 interview with the owners of Wright’s Hanna House, which will be discussed in the subsequent section on Wright’s design process, and continues sporadically up through Elizabeth Cromley’s 2012 article, “Frank Lloyd Wright in the Kitchen,” discussed near the end of this section. However, the theme of these works follows a similar trajectory to
that of secondary spaces in general. The earliest works, such as Peter Blake’s 1960 *Frank Lloyd Wright: Architecture and Spaces* and numerous articles found in H. Allen Brooks’ 1981 *Writings on Wright: Selected Comment on Frank Lloyd Wright*, merely mention the location, size, or decor of a bathroom or kitchen. Even these references are far and few in-between. Later analyses by Wright historian Robert McCarter begin to transition into a more open discussion of Wright’s hierarchy of spaces. These accounts focus on the social aspects of Wright’s delineation between primary and secondary spaces and the resultant circulation experience. The most recent examination, Cromley’s “Frank Lloyd Wright in the Kitchen,” pulls all of these concepts further into a greater cultural understanding similar to that of Alison Hoagland’s aforementioned article.

One of the earliest mentions of Frank Lloyd Wright bathrooms and kitchens was in 1972 by Eugene R. Streich. In *Environmental Design, Research and Practice: Proceedings of the EDRA 3/AR8 Conference, University of California at Los Angeles, January 1972*, Streich presents his findings of an interview with original owners of Frank Lloyd Wright homes. In a summary of his findings, Streich notes that owners felt Wright kitchens were “too small” and that bathrooms were compact and “treated in [a] utilitarian fashion.” They did, however, find his treatment of the kitchen interesting as it allowed for an element of duality in their occupancy and purpose. This duality was created by the kitchen’s half-hidden orientation, providing for some privacy for utilitarian tasks but also allowing for a degree of social interaction.12 While this social element of kitchens

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is found in later analyses, the concept of social investigation is not prominent in the literature for several decades.

Throughout the years there have also been sporadic articles which contain superficial references of the basic composition of Wright’s secondary spaces. Dirk Sutro examined the difficulties of living in a Wright house in a 1993 *Los Angeles Times* article. The chief complaints of the interviewed home owners were that the bathrooms were too small and inconveniently placed and that the kitchens were too small and lacked sufficient storage space. This article likely has a time-induced bias as the home owners were asked to reflect on their earlier experiences in the houses rather than about a contemporary situation. This interview method does not allow for a discussion of changing opinions through time. It is also unable to assess whether or not clients always viewed Wright’s secondary spaces as too small or whether the spaces had just grown obsolescent by the date of the interview.

A recent observation and analysis of Wright’s work developed a similar conclusion in regards to the quality of his secondary spaces. In a *New York Magazine* article from early 2014, writer Justin Davidson rants about the “obsessive, finicky, egotistical, and impractical” nature of famous architects. It is on these qualities that he blames the “faults” in Wright’s designs. Though not the article’s primary focus, Davidson states that Wright’s “bathrooms are cramped” and his “kitchens are afterthoughts.” Davidson lacks an explanation for these claims outside of what he calls Wright’s “profound if perverse desire.” However, despite their appearance as entirely opinion

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based, these assertions ultimately harken to a long-standing theme of viewing Wright’s secondary spaces as small if not insignificant.

In addition to these superficial assessments of Wright’s secondary spatial composition, the scholarly understanding begins to transition in the late 1990s and early 2000s. Here we find a deeper discussion of Wright’s hierarchy of spaces. Professor of Architecture and distinguished Wright scholar Robert McCarter, whose works are examined below, largely dominates this discussion.\(^{15}\) Peter Blake also makes a brief and potentially unintentional nod to the notion of spatial hierarchy in his 1960 *Frank Lloyd Wright: Architecture and Space*. While describing Wright’s use of space, Blake makes sure to mention that while the rest of Wright’s interior spaces are “separated not by doors, but by carefully developed angles of vision,” private areas were treated differently.\(^{16}\) There is no further explanation of this distinction. Whether or not the author included utilitarian spaces in his definition of “private” is open to interpretation.

Blake’s early reference to the issue of public versus private space relates to ideas shared by Wright and Louis Kahn. In his comprehensive book, *Frank Lloyd Wright* (1997), author McCarter credits Wright with the origination of this idea in regards to Kahn’s prolific use of the terms “served” versus “servant.”\(^{17}\) McCarter continues this theme in his article: “The Other Tradition of American Architecture: Frank Lloyd Wright and Louis I. Kahn” (2003). In this account McCarter defines the shared characteristic of Wright and Kahn, explaining that servant spaces “house structure, mechanical systems,

\(^{15}\) McCarter is an architect, long time professor of architecture, and distinguished contributor to architectural scholarly research. He has authored a plethora of books on Frank Lloyd Wright, Louis Kahn, and other pivotal Modern architects.


and service spaces... [which] free the... primary spaces of occupation.” McCarter also analyzes the importance of interior spatial configuration to both Wright and Kahn. He argues that both architects greatly disliked the International Style because of its emphasis on external form rather than internal experience. He also notes the irony in the fact that most people’s familiarity with Wright’s works, Fallingwater in particular, is limited to exterior photographs.

McCarter’s 2005 book, *On and By Frank Lloyd Wright: A Primer of Architectural Principles*, provides a further analysis of Wright’s spatial hierarchies. McCarter makes the general distinction that public spaces are more integrated while secondary spaces are closed off and separated from the rest. The author also suggests that Wright’s earlier works in the Prairie style employ a deliberate separation of secondary from primary spaces. His evidence for this claim is that despite the fact that Prairie houses followed a relatively formulaic floor plan, Wright shoved their kitchens and other services spaces near the back of the house in a disorderly and nongeometric fashion. Wright’s attention to detail and precise geometry, which is widely understood and observable to this day, is a testament to McCarter’s claim. McCarter expands upon this by explaining that Wright’s proclivity towards creating a hierarchy of space manifests itself in his plans, interior volume, and exterior form. If what McCarter professes is true, a question remains as to whether Wright purposely left detail out of these secondary spaces or whether he simply

22 McCarter, *On and By Frank Lloyd Wright*, 318.
passed the design of these spaces on to someone of lesser skill. The body of this thesis will address this question in further detail.

The most comprehensive discussion of a Wright-designed secondary space is the recent publication in *Buildings & Landscapes* by Elizabeth Collins Cromley, “Frank Lloyd Wright in the Kitchen” (2012). Cromley’s lengthy article marks the transition of scholarly work into an understanding of Wright’s secondary spaces as socially and culturally important on their own merit. Cromley begins the discussion with an intriguing and helpful analogy between vernacular and secondary spaces. She notes that it is not surprising that little has been written regarding Wright’s treatment of “food areas” due to this analogy. She argues that because Wright is so widely understood as a high-style architect, scholars have regarded discussion of his kitchen spaces as unworthy of attention—much in the same way that they have viewed vernacular architecture until recently.24

Much of Cromley’s discussion can be broken down into the transition of kitchen spaces in Wright’s early Prairie Style to those of his Usonian style. Within the Prairie style, kitchens are spaces run by servants and are highly separated from the rest of the house.25 The Usonian style differs in that the kitchen, or “work space,” often flows more freely into the rest of the house, it contains a merged living/dining room, and is representative of a working-class family where the woman of the house would be preparing the meals.26 The openness of the later kitchens would also allow for a higher degree of social interaction. Cromley’s way of looking at this transition highlights the

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important sociocultural role that the kitchen has played within Wright’s residential
designs. She underscores this notion of importance in stating that: “While Wright’s
aesthetic choices made his houses stand out from the popular norm, the way his houses
worked often matched popular culture’s ways of interpreting the food axis...”27

Graphic Comparison of Wright’s Secondary Spaces

To accompany the above discussion of Frank Lloyd Wright’s secondary spaces,
a series of graphics were created to provide a visual comparison of a select group of
Wright’s houses and their primary and secondary spaces. These graphics are located in
Appendix A. Red overlays indicate the primary spaces and yellow overlays indicate the
secondary spaces on these images. The properties selected for comparison were: Isabel
Martin Residence – Graycliff (1927), Jacobs’ First Residence (1936), Fallingwater
(1936-1939), Jacobs’ Second Residence (1944), and Hagan Residence – Kentuck Knob
(1954). These particular houses were chosen in order to provide a selection which ranged
somewhat in date and style, but was more confined than the entirety of Wright’s lengthy
career. It is believed that this confinement will make for more relevant comparisons.

While the Jacobs’ First and Second Residences, as well as Kentuck Knob, are
considered of Wright’s Usonian Style, Graycliff and Fallingwater are generally not
grouped into any particular category. The Usonian houses shown here are demonstrably
smaller in size and contain secondary space clusters typical of Wright’s later designs.
These clusters either contain side-by-side groupings of bathrooms and kitchens, or
“work spaces,” on one floor or stacked groupings between two floors. In either case, the
secondary spaces are provided their own niche within their respective houses. Kentuck

Knob, the latest design, shows a transition into a more fluid relationship between the “work space” and the rest of the house. This transition aligns with the evolving literary discussion regarding the social role of secondary spaces found in the preceding pages.

At both Graycliff and Fallingwater, two complexes which are decidedly similar in location and design features, secondary spaces function more in subservient roles to adjacent spaces. For example, the bathrooms at both houses generally accompany a nearby bedroom or are accessed only by a bedroom. Both the kitchens and bathrooms, with the exception of the Master/Guest Bathroom cluster at Fallingwater, are relegated to either the back or a far end of the house. The presence of the Master/Guest Bathroom in a more prominent area of the house, however, is indicative of Wright’s evolution into the Usonian Style as identified in the previous paragraph.

As can be seen in these graphic comparisons, Wright’s treatment of secondary spaces in plan evolved alongside the transition of his architectural style through time. While his later designs began to allow secondary spaces to play a more open role in the house, earlier spaces were located out of sight and were more simplistic in fashion. The size and shapes of these rooms also follow in suit with the general characteristics of Wright’s evolving styles. These findings make it evident that Wright did not simply insert stock bathrooms into his designs but rather made these rooms compatible with his overall themes. In relation, though this thesis will argue that Fallingwater’s secondary spaces do not solely derive significance from their association with Wright’s architectural style, their general arrangement within their respective house is also indicative of the period of his career in which they were created.
Wright’s Design Process

This thesis reviewed a third dimension of literature in an attempt to better understand the design process behind Wright’s projects and thus his secondary spaces. The three types of literature reviewed for this purpose were first-hand accounts by Wright’s apprentices, article collections, and comprehensive studies on Wright. Wright and his wife Olgivanna established the Taliesin Fellowship in 1932 as a program for aspiring architects, or apprentices, to study under Wright. At the Fellowship, first based out of Spring Green, Wisconsin, students learned not only how to draft but also how to farm, build, and cook. These apprentices were involved in all of the daily functions of the estate. Former apprentice Edgar Tafel has published several books which recount his and other apprentices’ experiences in the Fellowship. These accounts describe the apprentice learning process, varying degrees of involvement in certain projects, and the day to day life at Taliesin.

The most comprehensive of these accounts is Tafel’s *Years with Frank Lloyd Wright: Apprentice to Genius* (1985). Tafel describes in detail how the studio at Taliesin operated. He confirms that the program’s “learn by doing” tagline was in fact accurate. Right out of the gate, new apprentices would begin by copying the drawings from previous projects. Senior draftsmen oversaw this work and ensured that newcomers would learn Wright’s stylistic ways. According to Tafel, Wright also had a highly involved role in the process of both teaching and the production of drawings. He recalls the seasoned architect strolling through the studio, stopping to check the apprentices’ work, and often making changes of his own. This account aligns with

29 Tafel, *Apprentice to Genius*, 164.
the recollections of another apprentice, Gordon Chadwick. In a National trust for Historic Preservation interview from 1969, Chadwick stated that “Mr. Wright’s participation – even on small projects – was more than would be customary in many architectural offices.” These references of Wright’s involvement in the design process are important to the study of this thesis and provide clues as to how Fallingwater may have originally been conceived.

Tafel describes the Taliesin studio as a business where drawings were drafted and prepared. This process is further explained by another of Wright’s apprentices, Curtis Besinger. In his 1995 account, Working with Mr. Wright: What it was Like, Besinger describes how Wright’s original concept drawings progressed into final working drawings. After Wright had put his developed thoughts onto paper, senior fellows would translate them into more detailed presentation drawings. Wright would then often criticize their attempts to varying degrees. He also often redrew their work, continuing to change the “final” working

31 Tafel, Apprentice to Genius, 63.
drawings throughout the project’s completion. While these insights imply that Wright paid close attention to all aspects of the design process, it does hint at the notion that he gave more leeway in terms of apprentice influence on details of secondary importance. Whether or not Wright was designing the major conceptual form and the apprentices were filling in the other pieces, however, is not clear. Additionally, despite Wright’s heavy hand in his studio’s projects, Besinger also claims that a few of the houses were designed entirely by senior fellows—himself included. This conflicting account brings up the question as to whether or not Wright delegated design responsibility in terms of important versus common projects.

A further compilation edited by Tafel, About Wright: Recollections by Those Who Knew Frank Lloyd Wright, provides a continuation of the role that fellows played in designing Wright’s projects (1993). In this account, Tafel describes responsibilities of the Fellowship’s primary draftsman, John Howe. Howe was at Taliesin from 1932 until 1959 and worked alongside Tafel during his own shorter stint. According to Tafel, Howe was involved in the tedious details of the Hanna House project. Howe had to respond to the client’s wife’s wishes for numerous changes, which often surrounded “the bathrooms, kitchens, closets, etc.” While Tafel does not expound upon this, the description highlights the question regarding who all contributed to the design of Wright’s secondary spaces such as these. While it is unlikely that Wright completely removed himself from

32 Curtis Besinger, Working with Mr. Wright: What it was Like, (Cambridge: Cambridge University Press, 1995), xviii.
33 Besinger, Working with Mr. Wright, xix.
34 In another book Tafel also describes how Wright employed draftsmen in his private practice from 1893 until the creation of the Fellowship. These draftsmen would have had similar responsibilities to those of the senior draftsmen described here. Edgar Tafel, About Wright: An Album of Recollections by Those Who Knew Frank Lloyd Wright (New York: John Wiley & Sons, Inc., 1993), 91.
35 Tafel, About Wright, 123.
this process, it could be possible that apprentices and clients had more freedoms when it came to these spaces.

Two related articles compiled in *Writings on Wright: Selected Comment on Frank Lloyd Wright*, edited by H. Allen Brooks (1991), provide interesting views into Wright’s client interaction. The first, “How a Wright House Came to Be Built,” is a 1963 first-hand account from the owners of the Hanna House, Paul R. And Jean S. Hanna. The Hanna’s claimed that, despite popular belief, Wright encouraged their ideas and cooperation. They also recount the story of how the plans for their kitchen were originally empty. Upon confronting Wright, the Hannas recalled him replying: “Well, you must know what you want. I’ve given you the proper shell, now you get busy and fill it in.” They claim that he was equally as willing to discuss their ideas regarding the bathroom design.\(^\text{36}\) While the Hannas did not design these spaces entirely on their own, their recollections demonstrate that Wright provided constructive advice and suggestions for them. Though the Hannas’ intent in sharing this story was likely to foster goodwill regarding Wright’s advocating of client input, it furthers the question of how involved he actually made himself in the case of designing secondary spaces. While it could be a coincidence that the spaces in which he left these specific clients to their own devices happened to be bathrooms and kitchens, it might also be indicative of a larger pattern.

The second article reviewed in this collection, Eugene R. Streich’s account of home-owner interviews from *Environmental Design, Research and Practice: Proceedings of the EDRA 3/AR8 Conference, University of California at Los Angeles, January 1972*,

assessed the findings of an owner survey. In this account, Streich’s findings aligned with the Hannas’ in that they determined that Wright had a high degree of consideration for his clients’ requests, played a large role in the supervision of his projects, and was open to design compromises.37

Aaron Green’s essay “Organic Architecture: The Principles of Frank Lloyd Wright” maintains the assertion that Wright was an agreeable architect, stating that “contrary to general misconception, [Wright] was not dictatorial in considering the needs of his clients, nor was he adamant against changes.”38 Green’s essay is part of a larger collection created for the exhibition: Frank Lloyd Wright: In the Realm of Ideas (1988). Green repeats his claim that the client’s wishes were taken seriously while also describing the process by which Wright designed: he visualized the drawing beforehand, created a floor or plot plan atop a topographical map, finalized the floor plan, moved on to elevations and cross sections, and then sometimes added important notes or dimensions.39 This description contrasts with the aforementioned accounts by Wright apprentices in that it leaves no room for apprentice assistance. Rather, Green’s delineation suggests that Wright completed all of his own drawings. An essay in the same anthology by Bruce Pfeiffer, however, examines the high degree of collaboration between Wright

and apprentice John Howe. Pfeiffer described their back-and-forth process as “a magic metamorphosis occurring on a sheet of paper.”

The final essay examined in this exhibit collection, Jack Quinan’s *Frank Lloyd Wright in 1893: The Chicago Context*, demonstrates the role that industrial technology played in Wright’s architecture. As early as 1941, Henry-Russell Hitchcock’s *In the Nature of Materials, 1887-1941: The Buildings of Frank Lloyd Wright* acknowledged Wright’s admiration of the “romanticism [of] scientific feats of construction.” However, while it is widely understood that major technological advances were utilized in the construction of buildings like Fallingwater, Quinan’s essay draws this subject past the structural domain. He suggests that an “openly experimental attitude” towards the continually changing advances in architectural materials and technologies pervaded Wright’s entire career. Included in these developments were those of plumbing and heating. This experimental attitude can also be seen in the choice of bathroom fixtures at Wright houses like the Edward E. Boynton Residence, Darwin D. Martin Residence, and Fallingwater. Both the Martin and Boynton houses employed the innovative rib cage shower concept that was developed at the beginning of the twentieth century. As will be further discussed in the body of this thesis, Fallingwater’s bathrooms make use of low-

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rise toilets, sunken showers, and popular name-brand Kohler products. This notion of Wright employing contemporary advances in relation to utilitarian systems and spaces is ironically reinforced by the companies which sponsored the 1988 *In the Realm of Ideas* exhibition. Claiming that Wright shared their values of improving “the standards of beauty and comfort in which the American family [lives],” both Kohler Co. and the Whirlpool Corporation helped to fund the show.43

An understanding of Wright’s technological experimentations from a utilitarian viewpoint might be further compared to the earlier discussed topics of the importance of “historic systems” and the modernization of bathrooms, by the National Park Service and Alison Hoagland respectively. Wright’s inclination to use newer systems and fixtures aligns with the broader movement of modernization, while also creating a means for the existence of historically important elements found within his secondary spaces today. An understanding of the combination of these concepts begins to provide a means of analysis for the significance of Wright’s secondary spaces.

*Fallingwater’s Design*

One of the most iconic stories surrounding Wright’s design process is that of the alleged flash of genius which conceived Fallingwater. The main points of the story are: an initial visit by Wright to the proposed site in December of 1934, nine months of nothing written on paper coupled with frequent requests by Edgar J. Kaufmann Sr. for conceptual drawings, and a relatively unplanned visit by Kaufmann Sr. to Wright’s studio in Wisconsin on September 22, 1935. This visit is said to have been preceded by

a two hour period in which Wright first put pencil to paper, furiously creating what are
considered the near perfect sketches of Fallingwater that Kaufmann would soon see. The
origin of this story can be found in Edgar Tafel’s first-hand accounts. Tafel’s *Apprentice
to Genius* recalls a detailed description of the whole event. He begins by recounting the
phone call from Kaufmann which informed Wright that he was on his way. Tafel then
recalls frantically sharpening pencils for Wright as he drew in a near stream of conscious.
Fellow apprentice Bob Mosher and Tafel are subsequently described as completing a few
elevations while Kaufmann and Wright went to lunch.44 While this account is contested
by numerous scholars and the memories of other apprentices, the intriguing story
continues to pervade much of what is written about Fallingwater.45

What this account accurately portrays, however, is the important role that
Wright’s apprentices played in the creation of Fallingwater. While Tafel describes his
and Bob Mosher’s involvement in the overseeing of construction,46 Donald Hoffmann’s
*Frank Lloyd Wright’s Fallingwater: The House and Its History* (1979) lists numerous
apprentices that participated in some level of design.47 Additionally, both Hoffmann and
Franklin Toker credit Tafel and Mosher with helping to design specific elements of the

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44 Tafel, *Apprentice to Genius*, 3-7.
46 As recounted in Richard Cleary’s *Merchant Prince and Master Builder*, 74-75; 90-91.
47 Tafel, *Apprentice to Genius*, 174-175; Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 26; Tafel also discusses his, Bob Mosher’s, and John Howe’s involvement with Fallingwater’s design in an interview with John Howe in *About Wright: An Album of Recollections by Those Who Knew Frank Lloyd Wright*, 126.
house. While Hoffman states that Tafel suggested the location of Fallingwater’s Plunge Pool, Toker claims that both Tafel and Mosher helped to design furniture.48

Another avenue that the literature investigates is the role that the Kaufmann family played in Fallingwater’s design. There is a pretty consistent understanding among scholars that the Kaufmanns, particularly Edgar jr. and Sr., had a high degree of collaboration with Wright. Hoffmann describes the compromises to which both parties agreed, while naming a few of the prominent adopted suggestions that were made by the family. According to Hoffmann, Edgar Sr. requested that the hearth stone remain protruding from the living room floor. He also notes that Sr. requested a change in his wife’s bathroom. On a related note, Hoffmann credits Edgar jr. with the suggestion of cork tiling in the bathrooms. While this suggestion came to life, Edgar Sr.’s request for bathroom fixtures carved in stone did not.49 The failing of this suggestion to come to fruition, however, was not the result of a denial by Wright, but rather an issue of cost.50

In his own book *Fallingwater: A Frank Lloyd Wright Country House*, Edgar jr. confirms the notion that Wright was often willing to incorporate the Kaufmann family’s changes. One of these changes was

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48 Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 38; Toker, *Fallingwater Rising*, 237.
49 The suggestions of cork and stone fixtures also appear in numerous other works such as Richard Cleary’s *Merchant Prince and Master Builder*, 43.
50 Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 40; 45; 59; 79.
the removal of a washroom from the first floor.51 Richard Cleary’s *Merchant Prince and Master Builder* also furthers the notion that the Kaufmann family played a pivotal role in the design process. As Cleary’s book contains a plethora of schematic, development, and working drawings for Fallingwater, he notes that their changes throughout the duration of the project demonstrate the “client’s role in the realization of the house.”52 One of the primary changes that Cleary discusses is the alteration of Liliane’s bathroom.53 While these written works undoubtedly provide plenty of examples for client input regarding secondary spaces, they lack a complete understanding of how much leeway Wright gave to the alteration of these spaces versus more primary ones.

Furthermore, existing literature does very little in the way of discussing the relationship of Fallingwater’s secondary spaces to the rest of the house. In fact, Edgar jr.’s own work makes several statements regarding the overall composition of Fallingwater that contradict the presence of its secondary spaces. For example, jr. describes how “almost every room reaches outside” and that there exists a continuity of material throughout the interior and exterior.54 However, neither of these statements pertain to either the bathrooms or kitchen at Fallingwater. In fact, the only two places in the house that exhibit a distinct change in flooring material between rooms are the bathrooms and kitchen. Additionally, while the kitchen might arguably “reach outside” via its large window wall, the bathrooms are generally the smallest and darkest spaces within the house. The only further description of either type of space in the reviewed literature is Hoffmann’s claim that the kitchen was “not intended to express the character of the

54 Kaufmann, *Fallingwater*, 116-117.
house.” While neither Hoffmann nor Kaufmann’s accounts were likely written with an intention to discredit the importance of secondary spaces, their statements exhibit a lack of consideration for the topic overall.

Perhaps the most comprehensive account of Fallingwater’s design comes in the form of Franklin Toker’s *Fallingwater Rising: Frank Lloyd Wright, E.J. Kaufmann, and American’s Most Extraordinary House* (2003). While Toker repeats many of the anecdotal pieces of information already discussed in this review, he often imbues his own speculative ideas upon them. For instance, while he mentions the familiar story of Fallingwater’s first drawings and acknowledges the likelihood of error in the story, Toker interjects his own opinions as to the cause of the drawings’ delayed arrival. He suggests that the likely reason for this was Wright’s intention to test Kaufmann’s loyalties. This is unfounded, however, as Wright simply had a widely recognized reputation for tardy drawings. In fact, Toker himself later acknowledges Wright’s overly lengthy drafting process by delineating the several phases of drawings that Wright created for Fallingwater.

While his rationale is sometimes questionable, Toker does explore a relatively uncharted territory in regards to Fallingwater’s design influences and significance. Early on in his narrative, Toker hints towards an important relationship that the Kaufmanns had with the innovative technologies of the time. He begins by discussing the prevalence of

55 Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 76.
56 Toker, *Fallingwater Rising*, 138-139.
what he refers to as the “houses of the future” and “houses of tomorrow.” Toker’s implies that Edgar Sr. visited several of these “ultramodern” houses which were “packed with gadgetry” right around the time that he commissioned Fallingwater.59 While he partially chalks this off to Sr.’s business endeavors, Toker returns to this developing theme in later descriptions of the house.

Toker’s chapter “Fallingwater Gets an Interior” briefly touches upon the relationship that several of Fallingwater’s features have with a contemporary understanding of utilitarian technologies and fixtures. Toker does this relatively facetiously, however. In reference to the reactions of Fallingwater visitors, he states that “the futuristic appliances from the 1930s amuse them.”60 He then slightly switches gears but continues with the theme that visitors find these features relatively antiquated. For example, while he admits that the bathrooms contain important innovations such as “leading-edge equipment and finishes,” he explains that many of these “later become commonplace in American housing.”61 Toker also claims that journalists at the time focused on these radical new “labor-saving devices,” but that these are clearly less impressive today.62

Despite Toker’s understanding that contemporary visitors fail to grasp the importance of the technological innovations found at Fallingwater, he later describes how Fallingwater played an important role in advertising these innovations during the mid-twentieth century. According to Toker, “Fallingwater fed America’s fascination with convenience and home appliances.”63 He also claims that it was the “ultimate

59 Toker, Fallingwater Rising, 109-111.
60 Toker, Fallingwater Rising, 228.
61 Toker, Fallingwater Rising, 229.
62 Toker, Fallingwater Rising, 271.
63 Toker, Fallingwater Rising, 281.
demonstration house.” His reasoning for this is that Fallingwater supposedly made a name for numerous companies which helped to furnish both its interior and exterior.\textsuperscript{64} For example, advertisements from the Thrush heating company used Fallingwater’s application of their system as a pivotal sales pitch. \textsuperscript{65} Additionally, Toker notes that the Kaufmanns were able to employ brand new technologies before they were even on the market. His example is the kitchen application of Formica countertops shortly after they had been patented in 1935.\textsuperscript{66} Ultimately, Toker’s argument is that Fallingwater both was influenced by technological innovations and that it helped to spread their proliferation.

\textit{Literature Review Conclusions}

As seen in the first section of this review, the literature on the character of secondary spaces and their preservation is sparse and often contradicting. While the National Park Service provides the only preservation-related instruction on the topic of secondary spaces, the information it presents demonstrates a lack of clarity regarding the significance and treatment of these spaces. Analytical sources regarding the character of these spaces, particularly those dealing with Louis Kahn, largely focus on the social hierarchy of secondary versus primary spaces. It has not been until recently that scholars have considered the larger cultural values that might be learned from analyzing the composition and development of secondary spaces on their own merit.

The literature regarding Frank Lloyd Wright’s treatment of secondary spaces follows a similar trajectory to that of secondary spaces in general. It begins with merely

\textsuperscript{64} PPG glass, Armstrong cork, DuPont paint, Dunlop foam rubber, Hope window frames, and even a Capehart record player are listed as evidence. To this list can also be added Kohler bathroom fixtures, an AGA stove, and St. Charles cabinetry.  
\textsuperscript{65} Toker, \textit{Fallingwater Rising}, 304-305.  
\textsuperscript{66} Toker, \textit{Fallingwater Rising}, 303.
descriptive accounts of the shapes and sizes of utilitarian rooms. After this, scholarly understanding transitions into a deeper critique of the social hierarchies of Wright’s earlier work, followed by a more contemplative analysis of the transitions that occurred over the length of his career. Scholars understand these transitions to be representative of the larger cultural change from servant-based to working-class spaces.

Frank Lloyd Wright’s design process also makes for an interesting literature review. The main themes that surface are: apprentice versus Wright’s role in design, client interaction and contributions to design, and Wright’s fascination with innovative technology. While accounts vary to some degree, scholars largely agree that Wright and his apprentices both contributed a great deal to the design of his projects. While some recollections, such as John Howe’s tedious redesigning of the Hanna House’s details, indicate that Wright left the design of secondary spaces to his apprentices, the current written evidence is not conclusive. The same goes for his collaboration with clients. While existing accounts demonstrate a lesser concern for control regarding utilitarian spaces, this is not explicitly stated anywhere. Finally, an interesting shift in the understanding of Wright’s proclivity towards implementing technological innovation, which can be seen in the form of bathroom technology, has occurred over the last few decades. This begins with the 1988 suggestion by Jack Quinan that Wright’s experimental attitude surpassed general structural form and included application of new utilitarian features.

Franklin Toker’s book on Fallingwater continues this theme by discussing at length the role that “futuristic gadgetry” played in both designing the house and manifesting its widespread popularity. Toker is one of the few authors who attempts to analyze any aspect of the secondary spaces at Fallingwater. The examined body of
literature also demonstrates a general lack of consideration for the spatial composition of the house, aside from basic observations of its layout. Additionally, the majority of the literature surrounding Fallingwater’s creation focuses on recounting the famous initial design story, the construction process, and random contributions that both the apprentices and Kaufmann family made to the overall design. Similar to the literature on Frank Lloyd Wright’s general design process, the works on Fallingwater indicate a lower degree of concern and involvement by Wright regarding the design of its secondary spaces. Whether or not these select recollections are indicative of larger patterns, however, is unclear.

The four dimensions of literature reviewed provide the foundation for a more in-depth analysis of the context in which Fallingwater’s secondary spaces were created. While each category has demonstrated a small shift towards understanding the significance of secondary spaces, no existing work currently analyzes all facets of Fallingwater’s design process. That being said, the body of this thesis will take the lessons learned from the above literature and integrate them into a detailed analysis of the creation of the secondary spaces at Fallingwater. This analysis will allow for an exploration of the specific and larger cultural significance of these spaces.
CHAPTER THREE

DESIGN OF FALLINGWATER’S BATHROOMS

Part One: Spatial Discussion & Architectural Descriptions

The purpose of this section is to provide a sense of orientation and understanding of each of Fallingwater’s bathrooms’ locations, relationships with adjacent spaces, and internal configurations and finishes.¹ To begin with, when one enters Fallingwater they are greeted with a large open living and dining room combination flanked by adjoining

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¹ See Appendix D for full-page plans for the Main House and Guest House/Servants’ Quarters.
terraces. Despite early attempts by Frank Lloyd Wright and his draftsmen to equip this first floor of the Main House with a bathroom facility, this level was never furnished with such a room. The process by which this “lavatory” was removed from the plans will be discussed in a later section.² To access the first and most public of the Main House’s bathrooms one must climb the set of stairs near the dining area in the northern end of the first floor. The first floor has a lot of natural light and open space, and by contrast the second floor takes on a more private and confined ambiance. On this floor the Guest Bathroom is located to the south of the main staircase and up another short flight of

² As this theoretical restroom did not have a bath it is referred to as a “lavatory” in architectural drawings.
stairs. This southeast corner of the second floor was primarily allocated to guest activities during the Kaufmann family’s occupation. Adjoining the Guest Bathroom is the Guest Bedroom and, what is now known as, the Pottery Terrace—a relatively public area. These spaces are all accessible from the second floor hallway. This Guest Bathroom is the smallest bathroom in the Main House and is only equipped with one band of three high-set clerestory windows.

Sharing the Guest Bathroom’s southernmost wall is the Master Bathroom. In order to access this space one enters through the Master Bedroom. To access the Master Bedroom one continues down the darkly lit main hallway and into the first door on the left. The southern end of the Master Bedroom is lined with full height windows and a set of double doors which lead to the Master Terrace. Adjacent to this wall of windows,

Figure 3.3: Southern elevation from Master Terrace. The Master Bathroom glazing to the right of the terrace doors creates visual continuity with the rest of the facade. (Photograph by author)
in the southeast corner of the bedroom, is the door into the Master Bathroom. This is the largest bathroom in the Main House and has by far the largest area of glazing. The top half of the southern wall in this bathroom is composed entirely of windows, creating continuity between the wall of terrace windows to the west and the band of windows in the Guest Bedroom to the east.

The second floor hallway dead ends into Edgar Sr.’s Bedroom to the west. Access to his bathroom is tucked into the northeastern corner of his room, which is largely out of sight upon entrance. Edgar jr.’s bathroom is stacked directly on top of Edgar Sr.’s and contains two narrow windows, located in the same place on each floor, which span the entire height of their walls. In Sr.’s Bathroom, one of these windows is located above the tub, in the middle of the eastern wall. The other is in the north wall immediately adjacent to the room’s doorway. Neither of these windows provide much natural light as one window is north facing and external walls of the house largely block the eastern window.

Directly above Sr.’s Bathroom, jr.’s maintains the same window locations with a lack of direct natural light. In this case the eastern window is located in a shower. The northern window is placed conveniently near the room’s mirror.

The entrance into jr.’s bathroom, despite
original design configurations discussed in the second half of this chapter, differs from Sr.’s in that it faces the south. There are two routes of access for this bathroom, which technically opens into a public hallway and not into jr.’s Bedroom. The third floor, however, was mostly dedicated as jr.’s space and thus this would not likely have been a bathroom available to just anyone. One option for accessing this space is to go through Sr.’s room on the second floor, through a door in the northern wall, out onto a raised terrace and up a set of stairs to jr.’s study on the third floor. To the east of this study is a hallway sometimes referred to as the Gallery. Jr.’s bathroom is located to the north of this hallway, directly after exiting his study. This hallway also connects to an internal set of

Figure 3.5: Fallingwater Third Floor Plan, HABS Architectural Drawing, 1985. (Library of Congress, Prints and Photographs Division HABS PA,26-OHPYV,1-1)
stairs, which can be accessed from the hallway on the second floor, providing the second route to jr.’s bathroom.

Before discussing the Guest House and Servants’ Quarters Bathrooms, a few comments about the Main House’s configuration will be made.

The bathrooms within the Main House appear to fall within a hierarchy of importance. Size variations describe this hierarchy with the Master Bathroom being the largest and seemingly most important of the rooms, followed by Sr.’s Bathroom, jr.’s Bathroom and the Guest Bathroom. These associations of importance can also be observed in the abundance (or lack thereof) of outside views and natural light. In a house whose relationship with nature Wright proclaimed as of utmost importance, sticking the Guest Bathroom in a wall-locked location within the home seems to speak to its lower rank and higher degree of privacy. The Master Bathroom, which has been understandably photographed more than any of the other bathrooms throughout the house’s history, is clearly one of the focal points when it comes to Fallingwater’s secondary spaces. Positioning this bathroom in what is arguably the houses’ most important façade, the south elevation, clearly delegates it as a more noteworthy space. In contrast to this notion, the inconspicuous locations of both Sr.’s and jr.’s bathrooms on the northern side of the house speaks to their diminutive position in relation to other spaces. The bathrooms act as dividing spaces between rooms.
rather than prominent central spaces. Ultimately, the locations of Sr.’s, jr.’s, and the Guest Bathrooms appear to be consequences of their adjacent spaces.

The last two finished bathrooms at Fallingwater are located in the Guest House and Servants’ Quarters. The Guest House is broken up into three main spaces: living room, bathroom, and bedroom—all connected by a hallway on the northern side of the house. The bathroom is accessible from both of its adjoining rooms, making it less private, and again serving as an interstitial space and buffer between the two rooms. This bathroom has clerestory windows similar to that of the Guest Bathroom, but with glazing on three sides. In this case, the clerestory windows are made possible by a roof monitor which is not highly visible from the exterior. There is also an additional window, similar in dimension to those in Sr.’s and jr.’s bathrooms, in the southeastern corner of the room.

On the second floor of the Servants’ Quarters, over a sitting room and series of carports, is a row of three bedrooms, a hallway, and the final bathroom of the complex. This bathroom sits at the end of the hallway which lies directly in front of the top of the stairs. To the north of these elongated quarters is a polygonal terrace which is accessed by a glass door in the northernmost bedroom. Also effectively leading onto
Figure 3.8: Fallingwater Guest House Plan, HABS Architectural Drawing, 1985. (Library of Congress, Prints and Photographs Division HABS PA,26-OHPY.V,1-)

Figure 3.9: Fallingwater Servants’ Quarters Plan, HABS Architectural Drawing, 1985. (Library of Congress, Prints and Photographs Division HABS PA,26-OHPY.V,1-)
the terrace is a large window in the northern wall of this bathroom. This window lies directly above a bathtub and essentially forms the northern wall of the shower-tub combination. Similar to the use of the large window in the Master Bathroom, this use of glass seems to be for exterior aesthetic reasons in that it complements glazing found in the northernmost bedroom. While the glazing in the bedroom does not actually connect with that in the bathroom, they create a visual balance by placing transparent window space on either end of this exterior wall. The use of glass demonstrates contrast between the Master Bathroom, articulated as more important space, and the use of glazing in the Servants’ Quarters Bathroom, where window placement seems driven by exterior facade composition.
more than interior design. Placing a large window in a shower, likely just to maintain continuity for the exterior view, evinces a lack of prioritization of the interior experience.

_Bathroom Descriptions_

There is a high degree of consistency among materials, fixtures, and color schemes throughout the six bathrooms. Before describing the individual character of each of these spaces, a brief synopsis of their typical fixtures, material usage, and color schemes are provided here. Deviations from the typical will be noted in their respective sections. To begin with, cork tiles, concrete plaster painted an ochre color, and structural stonework make up the interior floor, wall, and ceiling surfaces. Cork covers all of the floors and concrete plaster finishes all of the ceilings. All woodwork, which includes doors, door jambs, switch plates, cabinetry, and wardrobes, is a “North Carolina Black Walnut veneered over a nine-ply wood of ship’s quality.”3 Original electrical outlets are set into the cork floor covering and are covered with brass plates. There are several instances of modern-day plastic outlet plates, generally on walls near the sinks, which were likely added several decades after construction. The door knobs and window frames are made of steel and painted Frank Lloyd Wright’s signature Cherokee Red color.

The plumbing fixtures, produced by Kohler, are cast in vitreous china and

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chrome. Though an invoice for their purchase was not found to confirm, it appears that the same models of toilets, sinks, bathtubs, and shower heads were used throughout most of the bathrooms.\(^4\) The Guest and Master Bathrooms, however, have different sinks than the rest of the house and will be discussed in their respective sections. The toilets originally stood at stock height but were sunken into concrete to achieve an approximate height of 10 1/2” off the ground. Historians attribute this practice to health fads of the time which felt that lower toilets were more “natural” to use.\(^5\)

According to Wright enthusiast Donald Hoffmann, Edgar Kaufmann Sr. “had a nail keg cut in half to demonstrate how

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4 Bailey-Farrell Manufacturing Company, “Quotation – Kaufmann Bear Run Camp,” April 6, 1937, Box 3 folder 7, Subseries 2: Project Records, Series II: Fallingwater (Pa.), from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976; While an actual invoice for the purchase of these fixtures was not found a comparison of this early fixture quotation by Bailey-Farrell Manufacturing Company with images from Kohler specifications, created by both Bailey-Farrell Manufacturing Company and Kohler, made possible the conclusion that the following fixture models are likely located in Fallingwater’s bathrooms: 26 x 15” K-5320-B Wall Hung Lavatory (Guest Bathroom), 24 x 20” K-4948-C Lavatory with Chrome Metal Lavatory Legs and Towel Bars (Senior, Junior, Guest House, and Servants’ Quarters Bathrooms), 5-1/2’ K-60 “Universal” Bath Tub (Guest Bathroom, potentially Senior, Guest House, and Servants’ Quarters Bathrooms), 10-1/2” #3450 tube shower heads (all bathrooms in Main House, like both in Guest House as well). No toilet fixture was discerned from visual and document comparisons. Bailey-Farrell Manufacturing Company, “Plumbing Fixtures,” undated, and Kohler of Kohler, “Plumbing Specification for Mr. E. J. Kaufmann,” March 12, 1937, both in Box 3 Folder 6, Subseries 2: Project Records, Series II: Fallingwater (Pa.), from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976.

high he wanted the bowls to be,” prior to their being sunk into the floor slabs. Hoffmann further emphasized how prolific the low-set toilet trend later became by stating that “In the later 1930s [after the construction of Fallingwater’s Main House], Kohler began producing a low 10” bowl.”

Evidence of Fallingwater’s sunken toilets can be seen throughout the house in the slight variances of the toilets’ heights above finished floors. While all of the toilets, save the one in the Guest Bathroom, sit below floor level, each sits at a slightly different height than the others. Prior to March 2015 there was also an area where cork had been removed in the Servants’ Quarters Bathroom which showed where additional concrete had to be poured in around the lowered toilet base. While the bathtubs and showers are sunken below floor level as well, the motivation for doing this was likely more for ease of use as will be discussed in Part Two of this chapter.

The mirrors in all but the Master Bathroom are rectangular and backlit with a glass shelf held in place by a piece of unidentified dark wood. These mirrors are not stock but were custom designed. The as-built mirrors seem to be at least a second iteration of design as there are earlier versions depicted in previous generations of architectural drawings. Various historians have speculated that Edgar Kaufmann jr. designed the mirrors, but this cannot be definitively concluded. In addition to the mirrors and windows, low foot-candle marine lights adorn the spaces. While the original devices

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6 Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 79.
for holding toilet paper are unknown, the current mechanism is a delicate wood frame and pin. When interviewed, Public Tour Manager Denise Miner recalled that while these holders were thought to have been designed by Edgar jr., her family story designated Ralph Miner, Denise’s father-in-law and the former Fallingwater caretaker, as the person who constructed them.\(^7\) If this were the case the holders would have had to have been created during or after the 1940s when Ralph Miner began working for Edgar Sr.\(^8\) Additionally, various pieces of artwork and linens furnish these spaces but will not be described in this section.\(^9\)

**Guest Bath – Main House**

The Guest Bathroom in the Main House is accessed by the door located in its eastern wall. Across from the door a typical shower-tub combination fills the western end of the room. Above the tub

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\(^7\) Denise Miner, telephone interview by author, January 6, 2015.  
\(^8\) Denise Miner, telephone interview by author, January 6, 2015.  
\(^9\) Chapter Four will touch upon the historic and modern curatorial and storage practices.
The entire wall is covered in cork and punctured with one marine light fixture. On the northern wall, and above the end of the tub, is a wood towel case. Below this case is a bump-out in the wall which is also covered in cork. The wall above this is finished with concrete plaster. The bump-out effectively provides a shelf for display items and holds a towel rack on its front side. Above the bathroom door the wall is covered in concrete plaster, whereas only approximately the top foot of the rest of this wall and the southern wall have this finish. Cork covers the lower majority of these two walls.

The eastern band of three clerestory windows is formed by a raised ceiling everywhere in the room except for a soffit over the bathtub. This raised ceiling, in addition to making room for the windows, serves as a raised planter on the third floor terrace above. The room’s mirror, sink, and toilet are all located below these windows. The mirror and sink are hung from the wall whereas the toilet is mounted to the ground but punctures the eastern wall with its
waste pipe. The sink in this room is a different model than the typical one found at Fallingwater and may be identified as Kohler’s K-5320-B Wall Hung Lavatory.\(^\text{10}\) The toilet is the only one of the six to be set on top of the floor versus sunken into it. To the south of the mirror lie two glass shelves. It is not known if these shelves are original. In addition to the toilet paper holder discussed above, the southern wall also holds a built-in radiator system. The system sits in the wall itself and distributes heat flow through two openings in the cork wall covering.

\textit{Master Bath – Main House}

The Master Bath is accessed by its door in the room’s western wall. As discussed previously, the top half of the southern wall is composed of steel casement windows. This is also the only bathroom in the house to make use of Wright’s famed corner windows. These windows open outwards and away from each other, dissolving the corner created

\begin{figure}[h]
\centering
\includegraphics[width=0.6\textwidth]{figure3.21}
\caption{ Southeastern corner of Guest Bathroom. (Photograph by author)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.6\textwidth]{figure3.20}
\caption{Raised planter on third floor terrace provides space for Guest Bathroom clerestory windows. (Photograph by author)}
\end{figure}

\(^\text{10}\) A quote from Bailey-Farrell Manufacturing Company, dated 4/6/37 and located in Box 3, Folder 7 of the “Series II: Fallingwater (Pa.): Subseries 2: Project Records” in the Edgar J. Kaufmann Papers on Fallingwater, 1909-1976, Avery Architectural and Fine Arts Library, Columbia University, lists this model as selected for the Guest Bathroom; A pamphlet of recommended “Plumbing Specifications,” dated March 12, 1937, located in the same folder, depicts an image of a “K-5320-BA ’Strand’ Lavatory” which is identical to the one in place in Fallingwater’s Guest Bathroom today. There is no evidence as to which model was actually ordered and installed at Fallingwater, however.
by the meeting of two elevations. The room-wide band of glazing sits directly above a built-in wooden dressing table. Aligned with the frames of the window are wooden shelves. This shelving has traditionally held pots of geraniums as this was effectively Liliane’s bathroom.11 The dressing table below the shelving contains a sink that does not match the rest of those in the house. As will be discussed later on, this sink was likely ordered after the rest of the Kohler fixtures. A glass bowl was intended to take its place but was never installed possibly due to higher costs.12 The model number of the existing sink is unknown. The table also provides venting for another built-in radiator under its western end. Evidence of later electrical wiring is also located under the dressing table where a more modern outlet is mounted.

Directly to the north of the bathroom door is a wardrobe taking up a large portion of the western wall. This wardrobe is connected to more shelving further to the north. The remaining wall space is covered in cork, which also wraps around the northern wall and through part of the eastern wall. A towel rack, marine light, and toilet

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11 Denise Miner, telephone interview by author, January 6, 2015.
12 The varying costs quoted for this complicated fixture will be discussed in Part Two of this chapter. While it seems out of character that the Kaufmanns would not be willing to spare any expense on the furnishing of their extraordinary house, numerous instances have been written about historically which depict the Kaufmanns as unlikely to spend exorbitant amounts of money on unnecessarily elaborate items. A classic example of this is the family’s rejection of Frank Lloyd Wright’s idea to cover the house’s concrete with gold leaf. Hoffmann, Frank Lloyd Wright’s Fallingwater, 61.
paper holder are all located in the western wall near the shelving. Though it no longer exists today, a fold-down bidet also used to hang from this wall, near the toilet in the northern end of the room. The toilet is located in the northwestern corner of the room and a sunken shower stall is located in the northeast corner. This fixture will be discussed further in later sections. A marine light illuminates the shower. The cork covering ends after the shower opening, which is abutted by a full length mirror. The rest of this wall, as well as underneath the dressing table, is finished in concrete plaster. A three-pronged, moveable towel rack is also connected to this wall directly adjacent to the dressing table.

*Edgar Sr.’s Bath – Main House*

Access to Edgar Sr.’s bathroom is granted through the door in its western wall. This wall is part of the house’s structural core and is constructed in stone masonry. A large wooden wardrobe fills most of the northern wall in addition to the tall and narrow window described earlier. A custom-made seat rests in between the wardrobe and the bathtub to the east. The eastern end of the room is filled with the typical shower-tub combination, a hand rail, and the additional narrow window. Adjacent to this window a portion of the ceiling is clipped by the ascending staircase above. A marine light also illuminates the shower in this room. Centered in the southern wall are the typical mirror and sink. The southwestern corner

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13 Denise Miner, telephone interview by author, January 6, 2015.
of the room houses the toilet, paper holder, and provides openings for another built-in radiator system. The portion of wall behind the toilet is the only finished in concrete plaster, as the rest are covered in cork.

*Edgar jr.’s Bath – Main House*

As noted previously, jr.’s Bathroom door faces out onto the gallery to the south.

The westernmost wall in this bath is a continuation of the stone wall in Sr.’s bathroom and holds the mirror and sink. The northern wall contains a wardrobe similar to Sr.’s and is covered in concrete plaster. Jr.’s sunken shower fills the northeastern corner of the room, whereas the southeastern corner is cut out to make room for a utility closet and stair landing accessed from the hallway. This creates the room’s “L” shape. Cork covers the interior of the shower walls and wraps around the eastern side of the room. Two marine lights are present in the room’s eastern elevation, one of which illuminates the shower stall. The rest of the southern edge of the room is finished in concrete plaster and houses a built-in radiator and toilet paper holder directly behind the toilet itself. While this toilet appears to match the other original fixtures in the house, the seat is clearly a
later replacement as it does not match the shape or color of the others.

**Guest House Bathroom**

The plan of the bathroom located in the Guest House takes on the shape of an “L” in that its eastern end extends further into the adjacent hallway, effectively blocking living room views into the bedroom. This use of space further lends itself to the idea that this bathroom serves as poché, or a divider within the house. The first view into this space from the doorway shows a wooden display shelf mounted onto the southern wall. This wall is covered approximately two thirds of the way up in cork and the rest is finished in concrete plaster. The window mentioned earlier anchors the eastern end of this wall whereas a typical shower-tub combination anchors the west. This bathtub is sunken a few inches lower than the others in the complex. This combination fixture fills the entire western end of the room whose wall is covered in cork. The ceiling over the shower-tub combination is lower than that over most of the room, save over the toilet, as it forms the base for the horizontal roof plane above. The rest of the ceiling is raised in the form of the monitor described earlier, creating space for the clerestory windows. The toilet is located in the northeastern corner of the room which projects further into the hall. The

![Figure 3.26: Edgar Jr.'s Bathroom shower with protruding wall to the right. (Photograph by author)](image-url)
short western fin wall formed by this extension hides the toilet from view and provides a location for the toilet paper holder. Directly behind the toilet is a built-in radiator system. Directly above is a built-in wooden cabinet. This area, in addition to the eastern wall, is covered in cork about halfway up the wall, followed by concrete plaster. The eastern wall contains the sink and mirror.

**Servants Quarters Bathroom**

The Servants’ Quarters Bathroom door is located in the room’s southern wall. The eastern wall is constructed of stonework and is a continuation of the structural edge of this building. A typical shower-tub combination fills the northern end of the room. As discussed previously, a large window sits atop the tub to the eastern end of this wall. The remaining portion of this wall is partially covered in cork and partially covered in concrete plaster. These proportions continue around the rest of the room save for the eastern side of a short screening wall, between the door and
toilet, which is entirely covered in concrete plaster. Centered within the western wall is the sink and mirror. In the southwestern corner of the room a cubby, similar to that in the Guest House, holds the toilet, radiator, and built-in cabinet. The western side of the short dividing wall holds the toilet paper holder and a marine light.

_Bathroom Descriptions Conclusions_

In addition to those in the Main House, the Guest House and Servants’ Quarters Bathrooms can be ranked in order of importance. As might be expected, both the Guest House and Servants’ Quarters in general are less geometrically complicated and do not appear to have been designed with as much contemplation. Although this concept will be discussed further in the following section, it is safe to deduce from the architectural descriptions of the spaces that the Guest House and Servants’ Quarters Bathrooms were also perceived to be less important than those in the rest of the house. Their locations in relation to adjacent spaces is generic, reflecting patterns witnessed in earlier floor plans of
Frank Lloyd Wright houses. They employ similar concepts, such as the toilet cubbies and uniform proportioning of cork to concrete plaster, and understandably mimic the pre-designed finishings of the Main House bathrooms. Additionally, the irregular patterned cork flooring in the Servants’ Quarters Bathroom is atypical in relation to the rest of the house. It is thought that this floor pattern may have been created by using whatever leftover cork scraps were left after finishing the Main House and Guest House Bathrooms. Investigation conducted in March of 2015 confirmed that no ghost marks of a more regular cork pattern existed underneath the current mismatched flooring, potentially verifying that this irregularity has been in place since the house’s construction, furthering the notion that this space was originally created with less attention to detail than that of other bathrooms within the complex.

While the locations of all of the bathrooms, except the Master, appear to be consequences of their surrounding spaces, it is interesting to note their variations in material usage and internal layouts. Particularly in the Main House, the varying uses of apertures, wall coverage, and fixture layouts give each of the bathrooms their own individual character. For example, without any obvious rationale cork completely covers some walls whereas some are finished in concrete plaster. In some instances cork seems to have been placed in a location which might require extra noise absorption, such as on a wall which is shared by a shower and another internal space within the house, reinforcing the intentionality of the choices made in wall finish material in these rooms. This is not always the case, however, as cork also lines the interiors of showers and shower-tub combinations which are formed by exterior walls. Though it is unclear, this may have

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14 This pattern is demonstrated in the floor plan of Wright’s Isabel Martin Residence (Graycliff). A graphic comparison of the secondary and primary spaces within this house can be found in Appendix A.
been done for thermal purposes. The room descriptions also evince varying levels of privacy. For example, in the Master Bathroom the toilet is visible through windows facing the Master Bedroom Terrace and soon after entering through the room’s doorway. In contrast, extended walls screen the toilets from view in the Guest House and Servants’ Quarters Bathrooms, and to a certain extent in jr.’s Bathroom. The process by which these differences were created will be discussed in further depth in Part Two of this chapter.

**Water, Plumbing & Septic**

While there are no as-built plumbing and septic drawings available to research how water was traditionally supplied and removed at Fallingwater, a few drawings, oral interviews, and historic maintenance manuals paint a hazy picture of the systems traditionally employed. To begin with, the pairing of bathrooms in the Main House was likely intentional from a technical standpoint. Butting the Master and Guest Bathrooms, as well as stacking Sr.’s and jr.’s Bathrooms, reduced the distance that pipes had to travel to provide water and waste extraction for these rooms. Earlier drawings suggest that pipes were cast into the walls and floors, with a few chases carved out of the interior of certain stone walls to provide “vent/soil.” In a drawing dedicated to describing the foundation design, a small note illustrates that from these ventilation chases also came pipes which lead to a septic tank downstream. The drawing notes that several directions of waste pipes, including one from the kitchen, met at a man hole southwest of the Main House and continued downhill “400’ to septic tank of stream below.”

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oral interviews with current Fallingwater employees Denise Miner and Albert Ohler, there were two septic tanks down below the Main House along the north side of Bear Run. Miner recalled a family story that designated “[her] grandfather, Clyde Friend, [as] involved with the digging of these septic tanks.” Ohler added that they were constructed out of concrete blocks.

As for a water source, both Denise Miner and Albert Ohler stated that the Bear Run stream provided water for Fallingwater and its surrounding buildings. After flowing downstream the water was collected by a reservoir on the opposite side of Highway 381 which predated Fallingwater’s construction. This dam diverted water into underground pipes which eventually crossed underneath the highway. The water then traveled to a filtering house and holding tank uphill from Fallingwater’s current entrance road. As there were no chemical additives, the water was historically treated in the filtering house with a sand and gravel system. The water would then be held in the holding tank before being gravity fed down to the Main House. Because both the water source and septic systems have been changed since these original configurations, they will be further discussed in Chapter Four.

Part Two: Original Design Process

As was made evident by the literature review in Chapter Two, Frank Lloyd Wright did not complete his design processes alone. Though the original conception and style of a design often originated with him, the execution of architectural drawings

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1880-1959, accession number 3602.006.
18 Denise Miner, telephone interview by author, January 6, 2015.
19 Albert Ohler, telephone interview by author, January 2, 2015.
and refinement of details was helped along by draftsmen and apprentices. The case of Fallingwater’s design was no exception. As was also illustrated in the literature review, the initial Fallingwater conceptual sketches were likely started by Wright and finished by at least two of his senior apprentices, Edgar Tafel and Bob Mosher. This was made possible by the training that apprentices received in the Fellowship. They were taught to draft in Wright’s style and were thus equipped to mimic him stylistically and in handwriting. In Wright’s essay, “In the Cause of Architecture,” he describes this notion: “An architect’s assistants should be like fingers on his hands in relation to the work he is to do.”

In the case of Fallingwater’s drawings, it is intentionally difficult to tell the difference between those created by Wright and those done by apprentices. While a few drawings do not appear to be in Wright’s hand or style, such as that of the kitchen addition, most are. Certain drawings, however, are not complete with the typical Wright title block and signature. The drawings which lack these features, such as the bathroom and kitchen layouts, do not appear to have quite the same handwriting as the more elaborate exterior elevations, sections, and full-level plans. This difference may be attributed to a dichotomy between working drawings and presentation drawings, a difference in authorship, or a combination of the two.

An unsigned letter to Fallingwater’s site contractor, Walter Hall, dated September 29, 1936, provides evidence of one of the processes by which new concept drawings

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22 The kitchen addition drawing does not match the style or medium, as it is drawn in pen, of the other drawings in this collection. “Kitchen Addition,” architectural drawing, 1940s, from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Architectural Drawings and Papers, circa 1880-1959, accession number 3602.156.
were created. Following a discussion regarding a bathroom layout change, this letter requests: “Will you please arrange to have the new boy from Wright’s office furnish us with a tracing showing this bathroom change, without delay, so that we may rearrange the plumbing and heating layouts for this room.”

The combination of this quote and the following paragraphs illustrate how apprentices likely assisted with all levels of the design and articulation process but likely to an elevated degree in terms of secondary spaces.

For example, in Wright’s autobiography, he briefly touches upon the apprentice process and level of involvement. Wright describes a context in which trained apprentices helped to create drawings of all levels of importance and, in return, were invited to print their own names on them. While Wright concedes that apprentices often make small mistakes here and there, he is prideful in the understanding that they are more malleable and, ultimately, capable than professional designers.24 Earlier in this same book, Wright relates these ideas to Bob Mosher’s role at Fallingwater. He recalls concerns expressed by Edgar Sr. about Mosher’s ineptitude, but Wright rebuts with both an explanation of Mosher’s ability and the value in contributing to apprentice education.25

There is also evidence of Bob Mosher and Edgar Tafel imparting their own influence over Fallingwater’s original design process. While they mostly served as liaisons for the Kaufmann family’s desires and input, which will be discussed later on, they made their own suggestions and edited working drawings on site. In an undated letter, presumably written to Wright, Mosher states his surprise in being “taken up on [a] bedroom suggestion.” This nod to the incorporation of apprentice ideas in the letter is followed by an inquiry into further design detail instructions, reinforcing the hierarchy between mentor and mentee.26 A later letter from Mosher, dated July 26 of the same year, illustrates his involvement in the changing concept of a first floor lavatory that was eventually abandoned. While Edgar jr., whom Mosher refers to as “Junie,” appears to be the instigator of the initial change, Mosher’s letter demonstrates that his own suggestions are more similar to what eventually manifested in this location. While jr. requested what

Mosher refers to a “tricky water receptacle” with an overflowing basin, Mosher suggests, presumably to Wright or Edgar Kaufmann Sr., that a low lying pool be used which would be supplied with water from a faucet higher up on the wall. Although this concept still appears to be referring to an interior space, a very similar idea was actually built on the exterior of this wall.

There is also evidence that Mosher and Tafel periodically submitted their own working drawings to Wright for approval. These tend to be the result of Kaufmann family member wishes. Alluding to the family’s involvement in the design of Fallingwater’s bathrooms, the only existing drawing that seems to definitely be from Bob Mosher’s hand is of the Guest and Master Bathrooms. The authorship of this drawing can be surmised by both stylistic qualities and the accompaniment of a letter written sometime prior to July 17, 1936. This related letter was written from Mosher to Wright and explains the details of the drawing, including the manifestation of Liliane Kaufmann’s request that her bathtub be “as low as possible to eliminate a high step over, sunken if possible.” Additionally, a note written in ink, addressed to Mosher and signed by Wright, is scribbled over the pencil drawing itself. Where this drawing proposes new bathroom layouts and fixture specifications, reflecting additional wishes of the Kaufmann family, Wright’s response demonstrates his close contemplation of every level of design change in the house. While he states that the “tub arrangement” is okay, he quibbles about the change from a 5’6” tub to the 6’ tub requested by Edgar Sr. Wright argues that “It was found that the 6’0” tubs [illegible] altogether too much lost water,” but concedes that

28 “July 17-1936, amended” is hand-written at the top of the letter.
“If he [Senior] thinks it worth the extra price –O.K. But I can’t see why… [illegible].”

This exchange illustrates the collaborative effort that took place between the Kaufmanns, Wright, and Mosher—particularly when designing this bathroom space.

In a letter to Wright, dated October 11, 1936, Edgar Tafel explains how he too expressed the Kaufman family’s wishes via his own working drawings. In his letter, Tafel informs Wright that two drawings are enclosed which illustrate proposed changes to a roof and terrace. Tafel makes it known to Wright that he does not approve of the second proposed change: “I really feel that Mr. Kaufmann’s suggestion for his terrace change doesn’t fit in so well.” While the letter lacks enough detail to determine whether or not Tafel’s warning was heeded, it further demonstrates that apprentices Mosher and Tafel were not afraid to communicate their opinions and judgment calls to Wright. The letter also further illustrates the obedience that Wright’s men had to him. While Tafel clearly felt strongly about the suggestion, he ends the letter with: “…but will await your word.”

This understanding of Wright’s ultimate authority is also alluded to in a letter from Mosher to Wright on March 27, 1937. While in this instance Mosher feels confident that he is capable of making the decision to not use a type of glass which will cause glare, he informs Wright of this decision and warns him: “If I don’t talk him [Sr.] out of it I will send you a sample and let you say No.”

31 Edgar Tafel, letter to Frank Lloyd Wright, October 11, 1936, from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Collection.
32 Edgar Tafel, letter to Frank Lloyd Wright, October 11, 1936, from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Collection.
Visible in these examples, apprentices Mosher and Tafel played important roles in supervising on-site tasks relating to Fallingwater’s design. While they drew in Wright’s hand and made suggestions of their own, it was ultimately up to Wright to make final calls regarding the design of nearly every space within the house. It does seem, however, that Wright was a little more lax in the realm of making final calls about more private spaces within the home.

Wright’s note regarding the Guest and Master Bathroom layout changes evinces the notion that while he still needed to state his opinion and give theoretical approval, he ultimately gave the Kaufmann family power to make the final decision in these spaces.

This loosening of the reigns also appears in a letter from Wright to Mosher on July 29th, 1936. In this letter Wright demonstrates a priority of sticking to his specific plans for more primary spaces, such as the terraces. The first paragraph of the letter is devoted to explaining why he is not budging about the height of one of the terraces. Following this is an unexpected concession by Wright that “Senior Kaufmann’s bedroom...
can be as he likes… I see no objection to that change if he likes it.” For the remainder of
the letter, however, Wright returns to objecting to changes which would alter his more
primary spaces and concepts such as the structural system and main house entryway:

“The concrete ribs however are part of the structural integrity of the whole fabric
and should go in as they are designed. They are working… The suggestion of
slopping [sic] about at the entrance does not appeal to me much. We will offer a
substitute if the necessity really exists.”

In what appears to be a further discussion regarding Sr.’s Bedroom, a letter dated
September 29, 1939 demonstrates what might be identified as a trend of Wright placing
priority on the exterior view of the house. While the letter suggests that Sr. had requested
the removal of a window from one of this walls, Wright apparently protested because
it would have removed a sense of exterior continuity with a similar window aligned
above in jr.’s room. The first paragraph of this letter, however, reaffirms the notion of
prioritization in that Wright conversely had “no objection to changing Junior Kaufmann’s
bedroom… That is, closing the bathroom entrance from Junior’s room and making a
new entrance located where the toilet was to be formerly placed.” This request likely
resulted from Edgar jr.’s decision to move his bed from the western end of the third floor
to a cove facing the Gallery which would have originally served as access to The Bridge.

34 Frank Lloyd Wright, letter to Bob Mosher, July 29, 1936, from Fallingwater Archives: Letters and
Correspondences, 1932-1936.
35 Carl Thumm, letter to Walter Hall, September 29, 1936, from Fallingwater Archives: Letters and
Correspondences, 1932-1936.
36 Carl Thumm, letter to Walter Hall, September 29, 1936, from Fallingwater Archives: Letters and
Correspondences, 1932-1936.
Essentially, Wright seems to have had no problem with rearranging an entire bathroom and moving a doorway out of its former location in a structural stone wall, but would not allow the removal of one window from a non-structural wall.

Wright’s emphasis on making the final decision regarding more primary spaces can be seen in other places. One of the more noteworthy accounts regarding Kaufmann family suggestions has to do with the Living Room Hatch and Stair to the Stream. Edgar Sr. found the design “expensive and seemingly unnecessary” and requested its removal. Wright, though ultimately supported by Edgar jr., retorted with a dramatic letter which included the quote: “[the] hatch has no meaning without intimate relation by stair to stream… This feature [is] absolutely necessary from every standpoint.”37 This dramatic rebuttal is indicative of Wright’s inclination to force his more visible designs upon the Kaufmanns regardless of their practical necessity.

There seems to be further proof in Wright’s lower degree of involvement in the design of Fallingwater’s secondary spaces. While Mosher’s aforementioned letter from March 27, 1936 does serve to inform Wright of some decisions made regarding material choices and allow him to approve or not, its tone is more informative than permission-seeking. While the statement “Armstrongs are sending me Cork-floor layouts” seems to reference a past discussion with Wright, the following paragraph seems to be new, yet firmly decided, information: “You will be pleased to know that the Kaufmanns have switched from Standard fixtures to the best and simplist [sic] that Kohler can offer. No square tubs. Mrs Kaufmann’s bath has shower, and no Bidet.”38

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38 Bob Mosher, letter to Frank Lloyd Wright, March 27, 1937, from Fallingwater Archives: Letters and Correspondences, 1937-1938; The process by which the bidet in the Master Bathroom was ordered will be discussed later in this chapter.
another secondary space, Mosher continues this same tone regarding kitchen cabinetry: “Kaufmanns preferred metal kitchen cabinets to wood. I have sent layouts to various companies.”39 These statements seem to allude to the fact that with Mosher’s assistance the Kaufmann family was making a lot of decisions without Wright.

This notion leads into the next point regarding the bathrooms at Fallingwater: the Kaufmann family, out of all the parties involved, seems to have had the largest effect on the design and furnishing of these secondary spaces. The existing correspondence between the Kaufmanns, the Kaufmanns’ employees, Wright, and Wright’s apprentices suggests that a great deal of conversation concerned the specific details of each of the bathrooms – the Master Bathroom in particular. The sample of archival material examined in this research reveals more discussion about the Master Bathroom than any other single room in the house.40

In assessing the various iterations of architectural drawings in both Fallingwater’s and the Avery’s collections, which are thought to be relatively comprehensive, the pattern emerges that the Kaufmann family’s suggestions came to fruition most in their bathrooms. Ideas are visible in other rooms but not as frequently as in these spaces. As argued in the preceding pages, the implementation of Kaufmann ideas is likely the result of both an increased interest by the Kaufmann family to design these spaces and a decreased role played by Wright in making the final calls regarding their design. The

40 It is outside the scope of research to prove that this was in fact the most discussed room as that would require examining the over 100,000 uncatalogued pieces of correspondence in the Frank Lloyd Wright Collection, though the volume suggests that it may have been. Best efforts were made to gain an unbiased understanding of the different levels of prioritization found in correspondence throughout the design process.
following paragraphs will discuss the types of changes that the Kaufmann family made throughout the design and construction phases.

As has been previously touched upon, correspondence and iterations of plan drawings elucidate a process by which the Kaufmann family interfaced with the apprentices and Wright to make requests. In the aforementioned letter predating July 17, 1936, and drawing proposal in which Mosher presents Wright with suggested changes to the Guest and Master Bathrooms, Mosher expresses frustration with the family. The correspondence illuminates what appears to be a common practice of requesting changes: “The Kaufmanns go over the plans every week-end, relay to me certain desires and bathrooms went under the hammer today.” Mosher’s tone of annoyance continues as he explains the various requests that accompanied this letter:

“Mr Kaufmann insists on a 6’ bath-tub where bath-tubs are used. In the guest bath the 6’ tub seems to change the position to something like the one suggested [in the drawing]. Mrs Kaufmann, in her bath-room wants very badly special attention to her shower bath… Also the addition of a B-Dey (however it is spelled) which shifts fixtures around somewhat and makes contact with the soil a little difficult. She would also desire to have the lavatory in connection with the dressing table some way or other.” 41

While Wright okayed nearly all of these requests, as has been previously discussed, the development of what ultimately happened to this dressing table was a

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lengthy process in which Wright was relatively uninvolved. The earliest mention found of this dressing table was a request by the Kaufmann Department Store Assistant Manager, Carl Thumm, on September 29, 1936. In this letter, which is accompanied by unanswered follow-up requests, Thumm inquires to Wright about the height of the dressing table.42 The table height had to be coordinated as Edgar Sr. had requested another change to the Master Bathroom relocating the radiator underneath the table itself. The configuration of the radiator today reveals it placed per Sr.’s requests as opposed to earlier planned locations apart from the dressing table.43

A large period of communication regarding the Master Bathroom dressing table began on June 6 and lasted through September 17, 1937. During this time period, Thumm expelled an impressive amount of energy in discussing the creation of this table with the Kaufmanns, Mosher, and various manufacturing companies. At least seventeen letters were found on the topic during this research which mostly dealt with the feasibility of creating a glass bowl to be used as Liliane’s requested sink in this table. This idea surfaced at some point between April and June of that year and is attributed to Edgar Sr.44 However, after numerous glass companies expressed concerns about the cost and

42 It should also be noted that this letter is representative of a period when, much to Wright’s dismay, Carl Thumm became largely involved in being a middle man for Fallingwater’s design and construction process. Thumm had begun conversing on behalf of the Kaufmanns and site workers, enlisting input from Wright himself. Wright felt that this job belonged only to his apprentices and that Thumm was interfering unnecessarily. He expressed this feeling to Edgar Sr. in his typical dramatic fashion: “I can’t build this extraordinary house with a Thumb[sic]... Your Thumb won’t do. I must have my own fingers. I want to make a success of this house if I have a chance. A chance means very largely having my own way with my own work using my own fingers.” Using a homophone of Thumm’s name and a comedic play on words, Wright was likely making the analogy, again, of his apprentices being the preferred extension of his own hands. Frank Lloyd Wright to Edgar Kaufmann Sr., May 4, 1936, from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Collection.
44 It can be concluded that the decision to use glass was made following April 6, 1937 based upon the existence of a price quote for a vitreous china Kohler sink made on that date. Bailey-Farrell Manufacturing Company, "Quotation – Kaufmann Bear Run Camp," April 6, 1937, from Avery Architectural and Fine
process by which such a unique bowl would be made, Thumm sent a request to an unidentified company on July 8, 1937, which details Sr.’s suggestion that a “stock fish bowl” be converted into the necessary sink.45 This suggestion is followed by various recommendations by glass companies as to different types of bowls that might be feasible in addition to a quote from Corning Glass Works on August 27, 1937, for a handmade PYREX bowl for $77.50—an exorbitant price for the time period.46 This quote, coupled with one from Pittsburgh Plate Glass Company of $250.00 for the table itself to be either constructed in glass or at least topped with glass, seems to have resulted in the abandonment of this project.47

Paired with the letters, various drawing iterations reflect the changing design of the Master Bathroom’s dressing table. Dynamic characteristics include its presence, location, size, materials, and details. While some drawings note the use of a glass bowl

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45 Carl Thumm, letter to an unknown fixture manufacturer, July 8, 1937, from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Collection.
46 Howard E. Bahr, manager of Corning Glass Works, letter to Carl Thumm, August 27, 1937, from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976, Box 1 Folder 5 in “Series I: Correspondence.”
and glass counter, others note the use of wood or cork. None of these drawings display the typical Wright title block or signature, nor are they dated. Additionally, no drawings were found which depict what was actually constructed in this location. Looking at the Master Bathroom onsite, it can probably be assumed that Kohler supplied this unidentified sink model as it matches the house’s other sinks in material and color.

Another concern vocalized by the Kaufmanns which manifested in the designs of the bathrooms was that of acoustic dampening. While this matter of acoustics appears to have been made in reference to the entire house, there is evidence which suggests that Edgar Sr. inquired specifically about sound insulation in the bathrooms themselves. Two letters deal specifically with Sr.’s concern regarding sound in general. The first, dated January 14, 1937, is from Store Manager Carl Thumm to Sr. which reports his findings regarding the insulation properties of different materials. This letter makes evident that Thumm did extensive research by way of its references to the various methods of sound transmission between rooms, between floors, and within individual rooms. The only specific type of room that Thumm addresses in this account is that of bathrooms. He professes that he “raised the question of transmission of sound from the flushing of toilets, bath tubs, lavatories, etc.”\textsuperscript{48} Though concrete and plaster was determined to be sufficient in reducing these types of sounds, it might be concluded that this seemingly large concern resulted in the use of cork throughout the bathrooms. The decision to use cork has been long attributed to Edgar jr.’s insistence that cork would be “softer, warmer, more strongly textured than the usual ceramic tile”\textsuperscript{49} No evidence was uncovered in this research that jr. made this final call, however. Regardless, it seems evident that

\textsuperscript{49} Hoffmann, \textit{Frank Lloyd Wright’s Fallingwater}, 79.
Sr.’s concern for noise transmission may have been a factor in the prominent use of this material.

While earlier discussions noted that Liliane Kaufmann likely suggested that her bath or shower be sunken below floor level, historians generally attribute the decisions to sink the toilets to Edgar Sr. As discussed previously, this decision was likely driven by the Kaufmanns’ proscription to surfacing health fads of the time. No documentary evidence was found that Sr. actually made this request, however. Drawings of some of the bathroom layouts suggest that the sunken bathtub and shower ideas were consciously

50 Hoffmann, *Frank Lloyd Wright’s Fallingwater*, 79.
specified prior to documentation showing sunken toilets. Though lowering fixtures may have been in vogue, the lowering of the tub and shower was potentially just for the ease of use as Liliane had requested. Drawings 3602.022 through 3602.024 demonstrate the sunken tub and shower elements, whereas none of them demonstrate the sunken toilets. A sloppy notation on 3602.022, however, may indicate that this decision was in the works. Near the base of the toilet the drawing reads “10 ½”” with “12 1/2”” noted just below that.51 Though the exact depth with which these toilets were actually sunk cannot be confirmed, they do sit roughly ten inches above the ground today.

51 “E.J.K. JR’s Bath,” architectural drawing, undated, original from Avery Architectural and Fine Arts Library, Columbia University: Frank Lloyd Wright Architectural Drawings and Papers, circa 1880-1959,
Situations such as the one described above are typical of how architectural drawings reveal the evolution of Fallingwater’s bathrooms. While some Kaufmann design suggestions did not come to fruition, such as Sr.’s proposal that the bathroom fixtures be hewn from stone, many did. Draftsmen incorporated these requests through a process involving multiple iterations of floor plans. One of these iterations, referenced earlier with the Mosher letter and drawing depicting family requests, has already been discussed extensively. The pair of documentation formats, written and drawn, attributed these changes to client requests. In addition to this specific instance, as was noted earlier, the number of bathroom redesigns seen as drawing iterations surpasses the number of redesigns of most other rooms in the house.

For example, within the collection of drawings examined, four distinct variations of the Master Bathroom floor plan are found. Among the variations are the relocation of fixtures, a transition from bathtub to shower, the installation of a dressing table, and the presence/lack of double doors opening onto the Master Terrace. This number of incarnations, however, does not include detailed refinements. Additional rounds of drawings describe changes to all of the specifics regarding the dressing table, radiator location, and bidet. A fifth iteration is the form of how the bathroom was actually constructed. This built version is only slight different from the fourth identified drawn scheme. The built scheme resembles the last drawn plan but includes a wardrobe and

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reproduction from Fallingwater Archives, accession number 3602.022.
52 Hoffmann, Frank Lloyd Wright’s Fallingwater, 79.
53 Referenced drawings include those specifically of the bathrooms as well those which represent a larger area but still include bathroom details.
54 While this and the following section reference drawing iterations in terms of physical layout and contents, it should also be noted that finishes were a dynamic feature of the bathrooms. The evolving use of cork has been discussed previously but will also be addressed in a later discussion regarding Fallingwater’s showers.
shortened version of the wall directly north of the entrance doorway. The number of drawings depicting the Master Bathroom contrasts with the single version that appears of the Master Bedroom itself. The only noticeable change in the Master Bedrooms’ two drawn plan iterations is the lack of corner desk, which is present today.

The process by which the Master Bathroom’s bidet was furnished is unclear. While the aforementioned letter from Bob Mosher to Wright, dated March 27, 1937, stated that Mrs. Kaufmann no longer requested a bidet, a price quote from Bailey-Farrell Manufacturing Company less than two weeks later, dated April 6, 1937, lists a
“Kleensan Tuscan Bidet” as to be attached to the room’s specified toilet fixture. Further complicating the story is Edgar Kaufmann Sr.’s documented purchase of two bidets on January 12, 1940, from Empire State Laboratories, for $287.10. As the next item line in this document states that one of these bidets was sold to a Mrs. Robert Frank on January 25, 1937, the remaining bidet could have either been the one which ultimately ended up in the Master Bathroom or an additional bidet which has previously gone undocumented.

56 “Recorded Capital Investment of Mr. Edgar J. Kaufmann in Residential Portion of His Bear Run Property
An additional example of the dynamic process of the bathrooms’ composition is visible in the design iterations for Edgar Sr.’s Bathroom and Bedroom. While the specific number of schemes found in the development of these two rooms does not provide as drastic of a comparison as that of the Master suite, the complexity of the changes reveals careful negotiation of the layouts. Three definite variations of Sr.’s Bathroom at April 15, 1955,” 13, from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976; This bidet is listed under purchases for the “Guest Wing and Servants Quarters” at the “Bear Run Residential Property” and was thus likely not the one used in the Master Bathroom. However, as no records were found which verify that the Kohler “Kleensan” bidet was the one purchased for the Master Bathroom, as well as to verify that another bidet was ever installed in the Guest House Bathroom, there is a slight potential that this later bidet purchase was the one which actually ended up in the Master Bathroom.
can be found in the plans including the version found on site today. In contrast, his bedroom only underwent two iterations. The only difference between the two bedroom schemes, however, is the movement of a terrace doorway from the western to the northern wall. This change was entirely dictated by Wright’s decision to wrap the terrace around the backside of Sr.’s room, not necessarily by
a family request. The bathroom, however, changes dramatically in layout, shape, and size throughout its three iterations. The two earlier versions of this space depict a closet to the east of the bathroom. One of these closet variants, which would have presumably been located underneath the second-to-third floor staircase, opened up into Sr.’s Bathroom via a double door in the southeastern corner of the room.

The next layout of the space has the closet opening into the second floor hallway. This time, however, the space for this “linen” closet is carved from what would eventually become the bathroom footprint—creating a smaller square bathroom in effect. While this closet was never built on the second floor, the presence of a shallow utility closet directly above at the top of the third floor landing may be the residual of this concept. The elimination of this closet on the second floor eventually lead to Sr.’s Bathroom’s third iteration. This third scheme relates to the actual built layout, though the plan has a very different fixture arrangement than those depicted in the drawings. Historians generally note that the third floor utility closet, which was equipped with a large sink, was created upon the Kaufmanns’ request to remove the burden of employees carrying water up and down three flights of stairs. If this closet did evolve from the one originally designed in Sr.’s Bathroom, the early iterations of the bathroom, though not instated, might further be attributed to family influence.

The other two bathrooms in the Main House underwent similar changes. Including the as-built versions, four iterations exist of jr.’s Bathroom and five of the Guest Bathroom. Jr.’s went through similar changes to Sr.’s as the existing utility closet made its

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57 As these drawings are undated it is not possible to discern which version of the closet location predates the other.
way into the drawings. This room also saw numerous layout changes, including his aforementioned request to move the location of his doorway. The main change in the Guest Bathroom was the frequent rearrangement of fixtures. Due to the lack of availability of drawings for the Guest House and Servants’ Quarters, an accurate comparison cannot be made of how the bathrooms in these spaces developed. While only one version of the Servants’ Quarters’ bathroom layout was found, which illustrates the configuration visible today, two distinct iterations were present of the Guest House’s Bathroom.59

Similar to the Guest Bathroom, the main difference in the two Guest House Bathroom schemes is the relocation of fixtures throughout the space.

The final bathroom to be discussed is the never-built first floor lavatory. While the architectural drawings do not speak much to different iterations of this room, they do make evident that it was intended to be designed from early on in the planning process. The amount of detail with which this space was designed is similar to those

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59 Two additional drawings were found in Richard Cleary’s Merchant Prince and Master Builder which depict third and fourth and second and third versions of the Guest House and Servants’ Quarters Bathrooms, respectively. These drawings represent completely different, and potentially earlier, concepts in terms of the Guest House and Servants’ Quarters entire arrangements. As these drawings were not present in the Avery and Fallingwater archival collections they will not be discussed further here.
Figure 3.42: An early iteration of Edgar Sr.’s Bathroom is seen here. The closet shown was not built. “Heating and Wiring Diagram” architectural drawing, undated. (Reproduction from Fallingwater Archives, accession number 3602.015.)

Figure 3.43: This iteration of Edgar jr.’s Bathroom shows the room’s doorway entering into his original bedroom among other changes. “Third Floor Plan” architectural drawing, May 1936. (Reproduction from Fallingwater Archives, accession number 3602.009.)
of other bathrooms in the house. The room, which would have been located directly to the right after entering the house’s main entrance, appears in section cuts as well as plans, complete with a toilet and sink. The aforementioned letter from July 26, 1936, which discusses Edgar jr.’s suggestions for the details of this room’s sink, demonstrates the involvement the family had with the design of this space.\footnote{Bob Mosher, letter to unknown recipient, July 26, 1936, from Fallingwater Archives: Letters and Correspondences, 1932-1936.} Furthermore, historians generally attribute the decision to remove this bathroom and subsequently turn the water supply outward, forming the entrance foot bath present today, as a decision made by the family. A quote of Kohler products dated April 6, 1937 includes information for the first-floor lavatory fixtures, thus proving that the plan to include this room was in place up until the final days of construction.\footnote{Bailey-Farrell Manufacturing Company, “Quotation – Kaufmann Bear Run Camp,” April 6, 1937, from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976, Box 3 Folder 7 in “Series II: Fallingwater (Pa.), Subseries 2: Project Records.”} The need to turn the water supply outward also contributes to the notion that this was a last minute decision as the plumbing had already been run.

The detail and frequency with which the bathrooms appear in Fallingwater’s architectural drawings is also notable. On one hand, only nine of the 162 drawings accessed at the Avery Architectural and Fine Arts Library are dedicated solely to depicting bathroom layouts and features.\footnote{An additional drawing was found in Fallingwater’s archival collection which depicts bathroom layouts. While this drawing is similar in style and layout to those now located in Columbia University’s Avery Architectural and Fine Arts Library collection: Frank Lloyd Wright Architectural Drawings and Papers, circa 1880-1959, it does not have an accession number verifying that it was ever a part of this collection. It is also not possible to determine whether or not this drawing was created as a working drawing or an as-built drawing. For these reasons it will not be included in this discussion.} However, 27 additional drawings show detailed bathroom spaces on sheets conveying information about other spaces as well. This combination of drawings makes 36 pages which depict the bathroom layouts to
some degree. The 27 drawings that show bathrooms and other spaces are mostly full-level plans with varying levels of detail in each room. The varying levels of detail include a range in specifics of fixture and furniture locations, window and door placements, and sometimes material usage. While a few of the full-level plans contain rooms which are slightly more detailed than the bathrooms, most depict the bathrooms in as much detail, if not more, relative to other spaces. In comparison to the nine pages illustrating only bathroom features, there are thirteen drawings dedicated to all of the casework in the house, six to the “Hatch” and “Stair to the Stream” details, and fourteen exterior views, elevations, or sections of the whole house.

The drawings depicting bathroom spaces specifically, which include plans, elevations, and sections, have an impressive amount of detail. Not only do the sheets show general shape, size, and location of the rooms and their fixtures, but they also show stonework, plaster, and cork specifications. These drawings make evident that Wright had originally intended to line the shower stalls with glass before the decision was made to
use cork. Drawing 3602.022 reveals original glass specifications, but a red colored pencil was used to scratch this out and add the word “cork.” A detail drawing of the corked shower’s details also exists. In relation to the earlier notion about drawing iterations and family influence, it is interesting to note that the switch from glass to cork in the shower completely altered the detail of this fixture. While earlier drawings had shown glass applied at an angle to drain to one edge of the shower, the more finalized version shows how the cork-lined showers slope in towards a centered drain. Edgar jr.’s alleged request to finish the bathrooms in cork, a more malleable material than glass, enabled the construction of this center drain.

The specifications for the house also illustrate intentions about the bathroom design and planning. While the document is only seven to nine pages in length, with two versions dated January 27 and February 1\textsuperscript{st}, 1936, one whole page in each delineates bathroom fixtures and septic details. The specificity with which the document describes fixtures includes amount, material, type, one set of measurements for the bathtubs, and the suggestion of the Kohler brand. However, the specifications state that all fixtures are to be “as finally selected by owner.” As contract documents, these specifications reinforce the previous finding that Wright and his apprentices made many design concessions about the bathrooms.

65 While it seems that lengthier specifications should exist, these succinct versions were the only ones found.
66 “SPECIFICATIONS FOR MR. AND MRS. EDGAR J. KAUFMANN RESIDENCE NEAR PITTSBURGH PENN., FRANK LLOYD WRIGHT ARCHITECT,” January 27, 1936, revised February 1, 1936, reproduction from Fallingwater Archives.
In conclusion, the design of Fallingwater’s bathrooms was a collaborative effort. Documentary evidence indicates that apprentices did contribute to working drawings of the house. These individuals assisted Wright with all levels of detail and importance, including interfacing with the Kaufmann family and making decisions on site. The findings of this chapter, coupled with the Literature Review, also help to conclude that while apprentices likely had a more heavy hand in the creation of drawings of secondary spaces like the bathrooms, Wright insisted upon granting his approval for many if not all design decisions. Acknowledging Wright’s authority in this regard, communications from the design and construction processes suggest that he gave a larger degree of leeway to the Kaufmann family when making decisions concerning the private inner spaces of their home. Generally speaking, if the change did not affect the structural concept or exterior view, Wright was okay with owner-driven design changes. This, coupled with
the Kaufmann’s clear interest in designing the bathroom spaces, lead to a large degree of implementation of the family’s input in the house’s bathrooms.

Fallingwater’s bathrooms also seem to have experienced no shortage of detail in their design. Correspondence, fixture price quotations, and drawing iterations demonstrate that great care was put into the conception of these spaces. Carefully detailed drawings, whether in the hand of Wright or an apprentice, accompany requests made by the family. The high representation of bathrooms in the exceedingly short specifications for the construction of Fallingwater also add to the idea that these spaces were not ignored. The depth of detail in the bathrooms, high number of design iterations presented, and the incorporation of the Kaufmann’s ideas ultimately define these as highly deliberate and collaborative.
CHAPTER FOUR
POST-CONSTRUCTION TREATMENT

Part One: Historic Conservation Practices

This chapter assesses the treatment of Fallingwater’s bathrooms post-construction through today. The first section will analyze historic maintenance manuals and practices, their manifestations in the form of work done to the spaces, and historic interpretation procedures. The second section will delve into relevant present-day practices and the bathrooms’ conditions. Notions of preservation policy and material integrity will be touched upon throughout.

“Fallingwater Work Schedules and Inventory – 1957,” located in the Edgar J. Kaufmann Papers, was the earliest document found which dictated treatment of Fallingwater’s bathrooms and other spaces after construction. Not surprisingly, this early manual-like document does not touch upon the specifics of repair work and material replacement. It does, however, provide a glimpse into the routine maintenance and housekeeping duties proscribed to Edgar jr.’s employees.¹ While duties are general in most respects, this document does reveal that it was a “Mrs. Harbaugh’s” responsibility to “scrub and wax the bath rooms that [had] been used” and “wipe out bathroom cupboards” following a weekend of occupancy.”² The inventory portion of the document also

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¹ By 1957 both Edgar Sr. and Liliane Kaufmann had passed way. This left Edgar jr. in possession of Fallingwater. jr. and his life partner, Paul Mayen, would have been the only regular occupants of the house in addition to servants. The “Fallingwater Work Schedule and Inventory – 1957” alludes to the fact that both jr. and Mayen were periodically living in the house as it provides housekeeping instructions for both “Mr. Kaufmann’s Room” and “Mr. Mahan’s [sic] Room.” “Fallingwater Work Schedule and Inventory – 1957,” 7, from Avery Architectural and Fine Arts Library, Columbia University: Edgar J. Kaufmann Papers on Fallingwater, 1909-1976, Box 3 Folder 9 in “Series II: Fallingwater (Pa.), Subseries 2: Project Records.”
² “Fallingwater Work Schedule and Inventory – 1957,” 2.
meticulously lists the contents of each of the rooms in the house. These inventories include items like the amount and size of bathroom towels as well as the art pieces and objects which are now a part of the Kaufmann Collection. An example of this is a list on “page five” of the document which illustrates that the Master Bathroom was to have “2 white Milk Glass Mexican bottles with stoppers.” This description is likely referring to the two bottles located in the Master Bathroom today. While the present-day curation of these spaces will be discussed in the second half of this chapter, the contents of this 1957 inventory begins to allude to the rationale for current curatorial decisions.

Chronologically, the next document which describes maintenance practices at Fallingwater is a collection of drafts for a maintenance manual. There are two versions housed onsite at Fallingwater of what appears to be a manual dating from the 1970s. The more intact version, catalogued in two parts as “Kaufmann Conservation Maintenance Manual” and “1970s Maintenance Manual,” is dated September 16, 1970. The second

3 “Page 5” is written at the top of what is actually the thirteenth page of the document; “Fallingwater Work Schedule and Inventory – 1957,” 13.
4 There is also a third unaccessioned version which holds much of the same information as the other two. This version will not be discussed.
5 These two manuals are accessioned as numbers 2005.08 and 2005.10 (respectively), 1970s, from Fallingwater Archives.
version, though undated, had to have been written sometime after August, 1972, due to internal references of this date. This document is simply labeled “Maintenance Manual.”

This later “Maintenance Manual” provides in-depth details regarding the historic water systems. An abbreviated version of this description can be found at the end of Chapter 3: Part One. The manual, in combination with oral interviews, illustrates some of the innovative features of these systems which largely date back to the early 1900s. Though innovative for their time, these features proved to be time consuming to maintain. Where the “Maintenance Manual” describes the complicated dam system on Bear Run, which used to provide water for the property, it notes that:

“Once weekly the maintenance men [would] drain each section, starting with the uppermost part, flushing each section as [the pipes] came down toward the filters. As each valve is opened, mud will flow out, then the water becomes clear… If this is not done, the pipe will fill up with mud in a short time and could not be cleaned out.”

An interview with Senior Maintenance Specialist Albert Ohler also verified this practice when Ohler recollected that his father used to have to check what he referred to as the “reservoir” every few days to ensure that the screens were not plugged.

In relation to a feature further along this gravity-fed system, the manual describes a filter house. Water ran into this structure and was filtered by a sand and charcoal system. While this feature provided a clean water source novel for its time,
it also evinced inefficiencies in the system. The filters required back flushing at least weekly but sometimes “daily… if the condition [was] severe.”† This was in addition to “small stones and sand grains [traveling] in the water line and [blocking] open flush valves,” – an occurrence which resulted in a complicated repair process.‡ Albert Ohler’s recollections also alluded to the notion that this problem may still have been occurring up until the water was shut off in the house around 2000. He noted that prior to this date he had to periodically check the showers and toilets to make sure the water still ran properly. Ohler also recalled, “…we would have problems with [the toilets] when we tried to flush them… some of them would try to overflow and stuff and then we’d have to put new parts in…” Regardless of the cause, these early septic and water systems were complicated and required a great deal of maintenance. An impressive amount of labor went into keeping these systems going during the Kaufmann family’s occupancy and beyond.

In addition to the plumbing problems that have been described, the system may have created trouble elsewhere. These problems may have contributed to a loss of material integrity in the house. For example, Albert Ohler mentioned that while completing his regular task of bleeding the radiators he has noticed that they do not all match throughout the house.† While it cannot be documented, the radiators would likely have originally been purchased as a cohesive system and would thus match. Because of this, and the very nature of radiators requiring clean water flow, it is reasonable to

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‡ In a telephone interview by the author on January 6, 2015, Denise Miner also recalled her father-in-law as having the responsibility to backflush these filters.
10 Albert Ohler, telephone interview by author, January 2, 2015.
conclude that plumbing problems similar to those mentioned above may have been the cause of radiator replacement.

The walls behind the toilets in the Guest Bathroom and Master Bathroom provide an additional example of an alteration of the bathroom’s original finishes in order to address plumbing issues. Removable panels of cork tiling are located at the flush handles, in addition to another panel below that in the Master Bathroom. Small screws in each of their four corners express the removability of these panels. While it cannot be confirmed, architectural drawings do not suggest that these removable panels were original design features. It appears that they were added at a later date, likely in an effort to create access to the plumbing systems after a problem had arisen.\textsuperscript{11} Though these were done relatively tastefully, the fact that they are not adhered to the wall creates a gap between them and the other tiles which hampers the aesthetic of the design.

The earlier “Kaufmann Conservation Maintenance Manual” provides a little more insight into the historic treatment of the bathrooms themselves. While some of the entries simply note that the “Bathrooms in the house are cleaned [monthly/weekly],” one is more specific in rationale and instruction: “All commodes are cleaned in the main house once weekly. Sediment builds up on interior of bowls. Cleaner used is special bowl cleaner

\textsuperscript{11} Albert Ohler, telephone interview by author, January 2, 2015.
or Comet Cleanser.” The presence of sediment likely relates to the problems with the water-filtering system mentioned above.

In relation to material treatment, however, an instruction on page 5 of this manual is particularly noteworthy:

“Cork tile in the bathrooms should be checked and replaced yearly when deterioration causes them to have a bad appearance. At the present time we have a limited number on hand for repairs if needed. Ralph Miner states that they come in various thicknesses, and he feels they can be purchased in Pittsburgh.”

As these excerpts were written prior to both the publication of the Secretary of the Interior’s Standards for the Treatment of Historic Properties and the nominations of Fallingwater as a National Historic Landmark and to the National Register of Historic Places, it doesn’t come as a surprise that little attention seems to have been given to the retention of historic fabric. Given the degree of water intrusion that Fallingwater regularly experiences,

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there is no doubt that cork has needed replacement over the years. This excerpt, in combination with a lack of documentation when such instructions were heeded, makes it evident that material integrity in the bathrooms cannot be adequately determined. While evidence of replacement practices can be seen where some cork tiles are obviously from a different era than those around them, it is impossible to know which are actually original. This concept of material integrity will resurface later on in this section.

This maintenance manual alludes to another issue which relates to the treatment and condition of cork. Both instructions for the Main House and the Guest House note that after routine cleaning was completed, the chains in the bathroom doorways were to be latched to “keep visitors away.”\textsuperscript{14} As this page is specifically dated September 16, 1970, it can be assumed that the decision to chain the bathrooms off from visitor access was made sometime prior to the date of this document. Fallingwater Director, Lynda Waggoner, confirmed that this practice was instated when the house was opened for tours in 1964.\textsuperscript{15}

At some point during the house’s life as a museum, however, the bathrooms were opened to visitors who participated in In-Depth Tours. In-Depth Tours still occur today,

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\textsuperscript{15} Lynda Waggoner, interview by author, March 6, 2015.
are approximately two hours long, and include access to spaces within the Fallingwater complex that regular visitors are not afforded. Though the dates of these tours are unknown, the practice of allowing the In-Depth Tour visitors access to the bathrooms is thought to have put undue stress on the cork flooring. While other concerns were likely present, such as the small size of the rooms, most interview participants noted that the cork was likely the main issue. Albert Ohler recalled that Tour Guides ended this practice sometime after he expressed concern for the floors’ condition. “I could tell a difference on the cork floors… it was damaging [them],” Ohler noted. “There was more wax taken off the floor… you could just tell it was wearing them down.”

Worn cork near the bathroom doorways still demonstrates Ohler’s observation today.

While information regarding present-day interpretation of the bathrooms will be discussed further in the second half of this chapter, a note should be made regarding the contents of Fallingwater’s various spaces. From the time that Edgar jr. donated the property to the Conservancy through today, the artworks and objects which furnish the space have been reflective of jr.’s instructions. These pieces are a part of the Kaufmann

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16 Albert Ohler, telephone interview by author, January 2, 2015.
17 Denise Miner, telephone interview by author, January 6, 2015; Scott Perkins, email to author, January 15, 2015.
Family Collection and have been rotated throughout the years. Photographs of object placement instructions from the 1980s provide a glimpse into these previous rotations patterns. In addition to the curatorial pieces which help interpret the spaces, other items are stored in the bathrooms. Historically these items have ranged from cleaning supplies in the wardrobes and cabinets and dehumidifiers shielded from view in the showers to the temporary storage of umbrellas and artwork. Generally these objects have been placed in a way that visitors cannot view them on tour.

In terms of physical work done to the bathrooms over time there has been a shortage of consistent documentation. However, with the help of oral interviews, Fallingwater’s “Preservation Timeline,” historic photographs, and a few project documents, a partial understanding of what has physically been done to these spaces

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18 Scott Perkins, email to author, January 15, 2015.
19 Denise Miner, telephone interview by author, January 6, 2015.
can be formed. As a rule, concrete and masonry repairs, painting, and conservation of the woodwork has been done relatively regularly in all of the bathrooms. While Albert Ohler noted that he refinished a wooden shelf in the Guest House Bathroom back in the 1980s, conservators Thomas Gentle and Victoria Jeffries have traditionally completed this work.  

In addition to these elements, as was dictated by the 1970’s maintenance manuals, cork tiles have been replaced periodically. While opinions differ on just how much of the cork has been replaced, Albert Ohler offered an estimate that “75… to 85% or so of the cork in the Main House [is] probably all original.”

There have also been a few large-scale projects over the years which have affected the materials and systems within the bathrooms. These projects include the replacement of all of the house’s window glass and the rewiring of the entire house in the 1980s, and the replacement of all of the lighted bathroom mirrors’ ballasts within the last ten to fifteen years. Scott Perkins added to this by stating that the “only modifications [to the bathrooms] would have been to accommodate electrical and plumbing changes, security equipment, and staff use (shelving constructed in tub areas for staff and housekeeping use).” The modern wall outlets mentioned in Chapter 3 are the outward evidence of some of these electrical changes. With the exception of shelf-installation for staff use, the projects mentioned seem to have treated the bathrooms relatively similarly to every other room in the house during their completion.

20 Albert Ohler, telephone interview by author, January 2, 2015; Scott Perkins, email to author, January 15, 2015.
21 Albert Ohler, telephone interview by author, January 2, 2015.
23 Scott Perkins, email to author, January 15, 2015.
The next few paragraphs contain annotations of work done in the bathrooms specifically. Beginning with the Guest Bathroom, historic leaks have severely deteriorated the room’s cork over time. While there is no physical documentation that any of the cork has actually been replaced, it is likely that it has. \(^{24}\) Upon scrutiny of a collection of photographs from different time periods, it seems prudent to make the claim that a large portion of the cork on this room’s southern wall was replaced at some time. These photographs include an undated photograph slide of the problem area, a 1996 printed photograph from a similar angle, and two digital photographs taken by the author.

\(^{24}\) In an interview on March 6, 2015, Lynda Waggoner confirmed that some cork had been replaced in the Guest Bathroom due to leaks from the room’s monitor.
from present-day. The undated photograph slide appears to predate the 1996 image for a few reasons. While the most obvious reason is that slides were most popular during the 60s and 70s, Fallingwater’s collection does contain slides which likely postdate this period. Visible evidence of the slide predating the 1996 photograph can be found in the condition of the ceiling roll just above the shower, however. While the scan shows signs of deterioration all along this curved corner, the 1996 photograph shows what appears to be recently painted-over spalling with later re-flaking of the parge coat in this area.

Additionally, in both the present-day and 1996 photographs, the cork tiles on the visible portion of the southern wall do not appear to vary in color as much as other original walls in the house. The slide, however, demonstrates a marked color variation.
The most noticeable area in the house with a lack of color variation is the cork tiling in the Guest House Bathroom, which was entirely replaced in 2007. While this lack of color variation could be the result of water damage or bleaching treatments, another present-day photograph shows a seemingly unnatural seam between the area of cork in question and a section further down the wall. Regardless of the order in which these photographs were taken, the slide version also shows a piece of cork with all but one corner missing. The cork tile in this location today does not show signs of cracking. This, in combination with the change in staining patterns in the various photographs, seems to allude to the fact that at least some of this cork has been replaced.

As for the Master Bathroom, Liliane’s bidet had to have been removed sometime after 1956. During an oral interview, Denise Miner relayed an account of how her husband’s family lived on the Fallingwater property between 1956 and sometime during the 1970s. At some point during these years, Miner’s husband Kerwin and his sister Donna had to have seen this fixture as they “…both remember a bidet in Liliane’s bathroom. So that means it had to be here at least in 1956. It was probably here even later.” Miner additionally speculated, “Maybe it was removed when the house became a museum, but I can’t document that.” While the cleaning instructions found in the 1970s maintenance manuals do not reference the bidet, this could simply be because the Master Bathroom was not likely used regularly after Liliane passed away in 1952. Regardless, the removal date can only be determined to postdate 1956.

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25 In a telephone interview with the author on January 2, 2015, Albert Ohler recalled that in previous years members of the Maintenance Department tried to bleach the water staining out of the cork in the Guest Bathroom.
26 Denise Miner, telephone interview by author, January 6, 2015.
In terms of cork, there is no conclusive evidence regarding the percentage of original material in the Master Bathroom. When a flood hit Fallingwater in 1956, an unknown author took photographs and wrote up descriptions of the damaged areas of the house. This report includes a photograph of the Master Bathroom’s saturated cork floor and advice that the “tile will probably raise.” Whether or not the floor received repair work, however, cannot be discerned. In relation to the removable cork panel in the wall behind the toilet, a photograph which likely dates between 1999 and 2002 seems to suggest that this work was completed after the photograph was taken. While the image is at an angle which largely blocks the view of the wall, the westernmost edge of the removable panel should be visible above the toilet in this photograph but is not. An “Existing Conditions Survey” conducted in 1999 by Wank Adam Slavin Associates (WASA), an architectural and engineering firm out of New York City, also depicts this wall without the panel alteration. This is in contrast to WASA’s depiction of the already

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Reason would stand, however, that the Master Bathroom panels had to have been put in prior to the water being turned off by 2003.\textsuperscript{29}

Other than visible evidence that at least one cork tile and the toilet seat were replaced in Edgar jr.’s bathroom, there have been no documented changes or work done to either Edgar Sr. or jr.’s bathrooms. In contrast, the Guest House Bathroom was entirely renovated by 2007. This was a lengthy undertaking, however. While the exact start date of this project is unknown, undated photograph slides illustrate the deteriorated state that this bathroom’s cork had reached. A project report from 2007 says that all of the cork, fixtures and objects were removed from this bathroom in the late 1980s.\textsuperscript{30}

Education Programs Coordinator Amy Humbert, however, recalled her ex-husband Cecil Keifer as starting the project in the early ‘90s.\textsuperscript{31} Regardless, the work was put on hold for quite a while.


\textsuperscript{29} During a telephone interview on January 2, 2015, Albert Ohler recalled that while it likely happened around 2001, the exact date that the water was turned off varies among records and oral interviews. It can be narrowed down to having occurred between the years 2000 and 2003.


\textsuperscript{31} Amy Humbert, telephone interview by author, January 15, 2015.
when moisture issues made cork adhesion nearly impossible. Many efforts were made to dry the space. Albert Ohler noted that in addition to fans, small vents were cut into the walls “to try to get the wall to breathe.” The aforementioned survey by WASA also detailed the installation of vents in several windows.

While this work was ongoing, there was a period of a year or more where the bathroom door was shut from visitor view. By the 1999 survey by WASA, the room was still in great disrepair. Much of the cork had been removed or had fallen off of the walls. In January of 2007, recommendations were followed to skim coat all of the walls in the Guest House Bathroom prior to cork re-installation. In order to ensure proper techniques, a representative from the Expanko Cork Company out of Exton, Pennsylvania, visited Fallingwater to provide tutorials. The project’s report also notes that “Photographs and the other guest house [Servants’ Quarters] bathroom [were]

Figure 4.14: Early work being done on the Guest House Bathroom’s failing cork, ca. 1993. (Fallingwater Archives)

Figure 4.15: Vent created in attempt to dry out the wall. (Photograph by author)

32 Albert Ohler, telephone interview by author, January 2, 2015.
34 Telephone interviews with Albert Ohler, Denise Miner, and Amy Humbert corroborated this statement.
being used as resources to ensure accurate installation.36 With the help of dehumidifiers and additional fans, maintenance staff had installed most of the cork by March and finished the project, complete with decorative objects and fixtures, by December 2007.37 Unfortunately, moisture issues continue in this space but the installation of a AC/Dehumidifier combination in 2014 was anticipated to help.38

The condition of the bathroom in the Servants’ Quarters has long been a concern as well. Prior to the winter of 2015, the room suffered from a number of problems including water infiltration, staining, mold, spalling of the concrete, and cork delamination. While Albert Ohler speculated that the cork was largely original, he did note that there have been previous replacements of the flush valve and related parts in addition to a 2013 replacement of the sink’s faucet. Ohler also noted that this replacement 4.5” faucet does not match the originals as they were a non-standard size of only 4”.39 Though efforts were made to replace this piece with a like material, the lack of off the shelf replacement options made this difficult. These fixture replacements were made necessary by the fact that this room is the only original bathroom at Fallingwater still in use.

In addition, the only photographically documented changes to the Servants’ Quarters Bathroom prior to March 2015 have to do with the toilet and its adjacent built-in radiator cover. In order to conduct plumbing repairs, maintenance staff cut out a portion of the wall which covers the radiator near the flush valve.40 While the exact date that this was done is unknown, a photograph with “1996” written on the back shows the cut

38 Scott Perkins, email to author, January 15, 2015.
39 Albert Ohler, telephone interview by author, January 2, 2015.
40 Albert Ohler, telephone interview by author, January 2, 2015.
already in place. Additionally, photographs from 2001 show that both the toilet and the cork flooring around the toilet were removed for plumbing repairs as well. Photographs taken before the toilet’s reinstallation illustrate how deep it was sunken into the floor as per Edgar Sr.’s alleged requests. While the toilet was returned to its proper location, the cork in this area was never replaced. Prior to the winter of 2015, a floor mat hid the lack of material from view.

In the summer of 2014 the author of this thesis assembled a detailed condition assessment of the Servants’ Quarters Bathroom. The author also put together a general plan and work schedule for the rehabilitation of this space. As this bathroom is still functioning as per its original intent, a rehabilitation of the space was more appropriate than a preservation or restoration treatment. Numerous materials were instructed to be replaced, due to their deteriorated condition, in order to keep the room safe and functional. As this room is visible on In-Depth Tours it must also serve the dual role of bathroom facility and tour space. This plan was put into action beginning in the winter of 2015. Upon the completion of this thesis the cork floor material had been documented and replaced with like materials in the historic pattern. A removable faux wall had been constructed to replace the portion
missing behind the toilet. Additionally, the room’s concrete parging coat had been needle-scaled to remove all loose paint and concrete prior to patching the concrete in March, 2015. Further repairs, painting, and cork replacement are scheduled for future work.

As has been previously mentioned, the septic and water systems have been updated from those originally in place at Fallingwater. Maintenance staff dismantled the septic tanks below the house in the late 1990s. 41 This event was followed by a contracted project which rerouted the sewage lines in 2001. This rerouting was part of a buried utilities plan proposed by CH2M Hill out of Virginia in 2000. 42 Amy Humbert recalled that following this project, but before the installation of the current zero-discharge wastewater system, a temporary septic tank was put in place up the hill from the

41 Scott Perkins, email to author, January 15, 2015.
The wastewater system treats and recycles gray water for use as flush water. Just prior to the debut of this system, city water came to Fallingwater and its surrounding area for the first time, providing sink water and drinking water for the complex. Both the installation of the zero-discharge system and the arrival of city water occurred in 2003. Although the exact date is unknown, the water to the bathrooms in the Main House and Guest House was shut off during this period and never turned back on. Some of the water lines still run, however, as three bathrooms between the Main and Guest Houses are functional. Two of the bathrooms are not thought to be original to the house’s design, while the third is the one in the Servants’ Quarters.

From the time Fallingwater was constructed through the recent past, a range of practices and policies have been followed in regards to preservation and interpretation of the property. While earlier procedures evince a lack of understanding for preservation values, such as the use of harsh chemicals and regular replacement of damaged materials, this is understandable as the preservation movement and associated value on original fabric had not yet become widely instated. This lack of familiarity with preservation practice, however, has resulted in the loss of some historic fabric and, to a lesser degree, design elements. While losses of design integrity are limited to locations where alterations or replacement materials do not blend perfectly with the historic design, such as where panels of cork have been made removable for plumbing access, these patch-like instances generally benefit the overall integrity of the space by preventing large-scale replacement or loss of historic fabric. The more recent example of the radiator

43 Amy Humbert, telephone interview by author, January 15, 2015.
44 Scott Perkins, email to author, January 15, 2015.
46 Albert Ohler, telephone interview by author, January 2, 2015.
cover in the Servants’ Quarters Bathroom is an exception to this, however. While maintenance staff likely deemed it necessary to remove this portion of wall in order to address plumbing issues, this procedure does not appear to have been the most minimally invasive.

Most of the bathrooms have suffered losses of historic fabric, including the unfortunate removal of the Master Bathroom’s bidet fixture. The extensive work done in the Guest House Bathroom, however, signals that in recent years efforts have been made to adhere to preservation standards. While a large degree of fabric was lost during this project, the new work matches the historic as closely as possible. In addition to the maintenance and housekeeping staff routinely caring for and keeping the spaces operational, the historic use of chains for interpretation purposes has proven to protect the bathrooms’ cork flooring over time. While evidence of wear and tear from the period when In-Depth Tour visitors were allowed to enter the bathrooms is visible today, it provides a visual record of the process by which this practice was deemed inappropriate for the material.

**Part Two: Current Practices and Conditions**

*Current Preservation and Maintenance Practices*

According to Fallingwater’s Preservation Manual, a set of standards based off of the Secretary of the Interior’s Standards for the Treatment of Historic Properties dictates the current physical treatment of the Main and Guest Houses. While this set of standards acknowledges that extreme intervention must sometimes be used in order to safeguard resources like Fallingwater, it claims that they generally follow the Secretary of the Interior’s Standards for Preservation. These preservation standards mandate
that as much historic fabric as possible should be retained in order to preserve: “[Fallingwater’s] character as a weekend home of the Kaufmanns, between 1937 and 1963 (period of significance).”47

While familiarity with these standards varies among Fallingwater employees, there was a general consensus among interviewed parties that there was at least some form of guidelines which dictate the work done on site. Scott Perkins confirmed that Fallingwater follows the standards by “proscrib[ing] to preservation and conservation for the main house and guest house” in addition to using “like materials” for necessary repair work.48

Though past work done at Fallingwater has not always closely followed these standards, as was seen in the previous section, the site’s “Preservation Manual” attempts to provide instruction on the proper procedures for conducting regular maintenance and repair work. There are lengthy sections dedicated to the proper mixing and application of mortar for the repointing of stonework, concrete, and the removal and reapplication of paint. While staff regularly updates this manual, at the time this thesis went to print the document provided little instruction in the way of maintaining the bathroom spaces.

48 Scott Perkins, email to author, January 15, 2015.
Only two out of sixty-five pages address issues related specifically to the bathrooms. The second of these pages merely instructs that two of the dehumidifiers, which run nightly, are to be stored in the showers of the Master Bathroom and Edgar jr.’s Bathroom. This aligns with the ongoing practice of storing cleaning materials in the cabinetry and on shelving in the Guest House and Servants’ Quarters Bathrooms’ bathtubs.

The first mention of the bathrooms in the “Preservation Manual” is more instructive. It states that the “Cork Bathroom Floor” requires “waxing for protection.” It then provides four steps and a product with which to biannually perform this waxing. However, there is no instruction regarding the care of the unwaxed cork or the proper procedure for dealing with damaged cork. Nor are there recommendations for repairing or replacing damaged bathroom fixtures. On other topics, however, there is specific information for bleeding the whole house’s radiator system, cleaning and repairing door knobs, and the different types and locations of light bulbs. While the omission of advice on the treatment of bathroom-related materials and features was likely not intentional, it does illustrate a lack of priority regarding these spaces.

Current Interpretation Practices

In terms of current interpretation of Fallingwater’s bathrooms, it does not appear that a lot has changed from years past. For example, the artwork in the spaces is still dictated by the wishes of Edgar jr. Also, as has been noted in earlier chapters, chains continue to block visitors from accessing the bathrooms. While this prevents the wearing

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51 Scott Perkins, email to author, January 15, 2015.
of the cork floors, it also helps to keep small collection items from being broken or stolen.52

According to Amy Humbert and Denise Miner, Tour Guides are educated on all aspects of Fallingwater’s history and design and are relatively free to customize their own tours. The guides are not encouraged to spend a lot of time discussing the bathrooms, but are welcomed to cater to visitor questions on the subject.53 While the Education Department’s “Fallingwater Interpretive Manual” discourages docents from pointing out the bathrooms, it does instruct them to acknowledge the kitchen.54 This dichotomy may be a result of the cramped spaces in Fallingwater’s upper floors, where bathrooms are present, versus the open first-floor plan of the Living Room near the kitchen. Humbert also spoke to this, noting that docents “have such a limited amount of item inside the house, we have to kind of keep the focus on the primary space. Plus, if we are directing them over there [to the bathroom], I think that puts more stress on the door and the chain.”55 Ultimately, the rationale in omitting the bathrooms from tour, whether physically or in speech, is two-fold. While physically avoiding the spaces will protect their material integrity, verbally discussing them is not a priority in a house with so many other spaces to touch on.

**Current Conditions**

As for the physical condition of Fallingwater’s bathrooms, most interviewed employees noted that water damage has progressively affected most of these rooms

52 Scott Perkins, email to author, January 15, 2015.
53 Amy Humbert, telephone interview by author, January 15, 2015; Denise Miner, telephone interview by author, January 6, 2015.
through time. The Guest and Servants’ Quarters Bathrooms were identified as currently in the worst conditions. This is likely due to the high visibility of their conditions. Whereas these spaces demonstrate large stains and loss of material, the Master Bathroom also faces less noticeable but serious issues in the form of structural cracking and water intrusion. Though other mechanisms can be identified as the causes of bathroom conditions, such as chipped surfaces and worn floors resulting from anthropomorphic issues, perpetual moisture has led to the most serious deterioration of these spaces. In order to document the present condition of Fallingwater’s bathrooms, miniature condition assessments were conducted on-site in October 2014. A summary of these reports follows. These assessments, as well as photographs, are also included as Appendix C.

These reports were organized by material and/or system present in the bathrooms. The broader categories identified for examination were concrete, cork, stone, windows, fixtures, and woodwork. Each category was then broken down by either location, such as ceiling/wall/floor, or individual feature. Each of these subcategories was rated Poor, Fair, or Good, depending on their degree of deterioration and loss of historic fabric. Comments are included where specificity was necessary. In general, the woodwork throughout the house is in excellent condition. This is likely due to wood conservator, Victoria Jeffries, making annual visits to Fallingwater. The only features identified as fair were the door and cabinet in the Servants’ Quarters Bathroom, which show slight wear and water staining. Water staining on the room’s cabinet is the result of a ceiling leak directly overhead. It is likely that these features have not been recently treated in anticipation of the current rehabilitation of this room.

56 Albert Ohler, Denise Miner, and Amy Humbert mentioned conservation issues with these bathrooms.
With the exception of the Servants’ Quarters Bathroom, most of the fixtures were generally in good condition as well. Those in the Servants’ Quarters Bathroom demonstrate problems ranging from minor enamel chipping to severe tarnishing and water staining. The shower head in this room exhibits the worst staining with a major ceiling leak as its cause.

All of the bathroom windows are also in relatively good condition. Minor corrosion is present on some elements of the steel frames and window locks and handles. The frames of windows in the Guest and Servants’ Quarters Bathrooms have the highest concentration of corrosion. As excess moisture can be to blame for most of the problems in these two rooms, it seems prudent to say that leaks and humidity levels have also contributed to this mild corrosion. In addition, some of the windows, such as in Edgar jr.’s and the Guest House Bathroom, have a cloudy appearance potentially from a film or other substance.

In the three bathrooms where stonework is present, conditions range from poor to good. As is to be expected, the Servants’ Quarters Bathroom’s eastern stone wall is in the worst shape. A major leak has formed mid-wall at the ceiling juncture. This has led to severe staining, efflorescence, and mold growth. These issues can also be seen in the northeastern corner of the room where the stone meets a cork wall. A large gap exists between materials in addition to what appears to be a leaky window above. These conditions have led to severe water damage throughout. While water also mildly affects the stone wall in Edgar jr.’s Bathroom, Edgar Sr.’s is relatively clean.

The condition of concrete in the bathrooms also ranges from poor to good. As the house has been painted relatively frequently, it is difficult to assess the actual condition of the underlying parge coat. A comparison of current conditions with the 1999 “Existing
Conditions Survey” by WASA provides a glimpse of how these spaces have evolved in the last sixteen years. While most of the rooms exhibited failing paint and spalling concrete in the 1999 survey, most of them have been repaired and repainted since. Currently the only two bathrooms with noteworthy concrete deterioration are the Master and Servants’ Quarters Bathroom. While it is apparent that some work has been done to both of the spaces since 1999, larger issues have resurfaced in the form of concrete spalling, water staining, and cracking. The main problems lie in both of the rooms’ ceilings. While the Servants’ Quarters Bathroom has a severe crack and mold problem, the Master Bathroom appears to have pooling of some sort behind the parge coat. This is manifesting in a sagging effect of the ceiling where it meets the eastern wall.

With the exception of the Guest House Bathroom, the cork appears to be in relatively the same condition in all of the bathrooms as compared to the 1999 survey. As is noted throughout the survey, damage is primarily the result of water infiltration. The Guest and Servants’ Quarters Bathrooms suffer the most extensive cork damage. While the Servants’ Quarters Bathroom was in bad shape in 1999, the floor and northeastern corner of the room have gotten progressively worse. The Guest Bathroom is in a similarly poor condition as it was in 1999. The leaks which caused the majority of the cork and concrete damage prior to this date are hoped to have been corrected with the installation of a new membrane on the terrace above.57

While maintenance and repair work has been done to some extent in each of the bathrooms, there was a majority consensus among interviewed participants that preservation work has historically been less of a priority in the bathrooms versus other

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spaces in the house. Three interviewees pointed to the example of the Guest House
Bathroom project, which was incomplete for nearly two decades. While the logistics of
completing this project were likely a cause of the delay, Denise Miner also noted that she
thought another contributing factor could have been that “it was considered to be a less
important room and resources, both time and monetary, needed to be expended on other
areas of the house first.”58 As Fallingwater is constantly experiencing issues with water
infiltration and the subsequent deterioration of its exterior fabric, this was likely the case.

Albert Ohler also referenced the lengthy duration that the Servants’ Quarters
Bathroom has been in a state of disrepair. To contrast to this Ohler noted that since the
time this room began showing signs of deterioration “most of the terraces, almost all of
the terraces have been done [repointed/flagstone re-laid] once and some of them have
been done twice.”59 While the exterior nature of the terraces likely subjects them to higher
levels of environmentally induced deterioration, the extra focus of preservation efforts
on these primary spaces also speaks to a lack of priority given to more secondary spaces.
Ohler also added to this notion by mentioning that when staff needle-scaled the Master
Bedroom and applied new parge and paint coats, rather than continuing this process into
the adjacent Master Bathroom whose ceiling had demonstrably been showing signs of
water infiltration, workers stopped short at the doorway.60 While this selective work was

58 Denise Miner, telephone interview by author, January 6, 2015.
59 Albert Ohler, telephone interview by author, January 2, 2015.
60 Albert Ohler, telephone interview by author, January 2, 2015; Though the date that the Master
Bedroom was refinished is unknown, the 1999 “Existing Conditions Survey” by WASA shows previous
conditions of the room’s deteriorated ceiling. The patterns of deterioration in the southern end of
the ceiling align with those in the southern half of the Master Bathroom ceiling. It is likely that these
conditions are indicative of water penetration through the roof overhang directly above these two rooms.
undoubtedly the result of limited time and money it shows a conscious decision to select certain spaces for repair work over others.

In addition to the impression that interview participants have regarding the prioritization of spaces in maintenance work, Fallingwater’s “Preservation Timeline” also makes this hierarchical nature evident. While the majority of projects are large-scale, including the structural strengthening of the first floor cantilever and holistic painting campaigns, bathroom projects do not have a strong presence in terms of the individual interior spaces that are worked on. Where it appears that at least two bedrooms, interior hallways, and the kitchen have had their walls needle-scaled and refinished, only the Guest House Bathroom had undergone a similar treatment prior to the winter of 2015.61

As has been demonstrated by the discussion of bathroom conditions, it is not for a lack of need that these rooms have been overlooked in this type of repair and maintenance work.62 To the contrary, if these rooms actually have had a similar amount of focus given to them, they definitely lack consistent documentation. Whether it is a deficiency in physical work or documentation, the bathrooms do not appear to be equally represented in terms of their preservation.

While the lesser degree of work done in the bathrooms does not provide for an extremely dramatic comparison, its combination with the rooms’ low presence in preservation and interpretation policies make for a general deficit in the attention paid to these spaces. As has been seen, this lack of attention has been attributed to the nature of these rooms. While tours simply do not have the time to focus on secondary spaces, maintenance and preservation practices must also be directed to more pressing matters.

62 There is potential that additional projects have been undertaken in the bathrooms but have not been documented and have fallen out of the recollections of the employees interviewed for this research.
Derived from the research presented in Chapters Three and Four, this chapter synthesizes the thesis’ overall findings. The examination of Fallingwaters’ bathrooms’ original conception and post-construction treatment has informed an assessment of their significance as it relates to the parties involved in their design as well as to the larger cultural relevancy of these historic spaces. The notion of secondary spaces holding significance in their own right and as a part of the larger narrative of an historic site will be addressed. Acknowledgment of the challenges faced when preserving a secondary space, whether through conservation work or interpretation, will be accompanied by recommendations for proper treatment of these spaces both at Fallingwater and at a greater scale.

Analysis

As was stated in Chapter One, Fallingwater’s bathrooms do not only derive significance from their display of Frank Lloyd Wright’s acclaimed architectural style as executed throughout the Main and Guest Houses. As Wright demonstrably played a lesser role in the design of these spaces, making evident his acknowledgment of a design hierarchy, additional realms of significance are that much more important to explore. In actuality, the bathrooms as secondary spaces at Fallingwater are more reflective of the Kaufmann family’s tastes and priorities. The bathrooms’ design proved to be a detailed collaboration between the family, Wright, and his apprentices. The bathroom’s derivation
of significance is also linked to the ways in which the family’s requests reflected rising cultural trends related to utilitarian spaces.

To begin with, the Kaufmann family’s visions most frequently modified bathroom designs as opposed to other rooms. As has been seen in correspondence and architectural drawings, the Kaufmanns made suggestions ranging from general bathroom and fixture layouts to specific fixture dimensions and wall finishes. Frequent requests were communicated to apprentices, namely Edgar Tafel and Bob Mosher, who spent time on site ensuring proper design execution for the architect. The proposed amendments to Wright’s original bathroom schemes range in complexity. The simple rearrangements of fixtures resulted in minimal alterations to the architectural drawings. Other Kaufmann-induced changes proved more cumbersome. For example, the decision to remove the first floor lavatory took place after plumbing had already been run to the room’s location. The elimination of this lavatory necessitated switching the orientation of the plumbing. The existence of a water supply to the location created an opportunity to introduce a new amenity, an exterior entrance footbath. This footbath was not an original design element, nor the result of client stipulations. Instead this feature reveals that decisions about the bathrooms were being made until quite late in the design and construction phases. It also shows a flexibility toward client input that is not characteristic of Frank Lloyd Wright’s general reputation.

The reworking and finishing of the dressing table in the Master Bathroom also provides an example of the complexity of some of the family’s requested changes and the degree of coordination required to execute them. This dressing table was an original design feature in the Master Bathroom. The finishes and detailing, however, evolved over time. The difficulties encountered with the production of the table’s sink basin,
specifically, are well documented in correspondence between Frank Lloyd Wright, the apprentices, the Kaufmann’s, the Kaufmann Department Store manager Carl Thumm, and product manufacturers. This dressing table was originally designed with a glass sink basin and was located in the southern end of this room. Numerous drawing iterations document that the room’s radiator was relocated several times due to the repositioning of this dressing table. There is also a multitude of correspondence regarding the sink for this piece of built-in furniture. The correspondence reveals how much energy went into sourcing the spherical glass sink product. The lack of availability of this specified plumbing fixture reveals the limitations of technology and commercial production during that particular era as well as the forward thinking-nature of the designs that Wright and his clients envisioned.

Wright having played a more lax role in the design process of the bathrooms versus more primary spaces enabled the implementation of these particular Kaufmann design suggestions. This is not to say that Wright relinquished all control in regards to bathroom design. However, the body of this thesis demonstrates that the Kaufmanns and apprentices had an easier time negotiating with Wright on matters of the internal private realms of the house than on major spaces or the exterior façade composition. An example of this is present in Edgar Jr.’s proposal to relocate his bathroom door, making it accessible from the third floor hallway instead of his bedroom. This change required altering architectural drawings to reflect the doorway’s move in addition to the rearrangement of the bathroom’s fixtures. This rather complex alteration contrasts with Edgar Sr.’s request to remove a not-yet built external window from his bedroom, to which Wright replied with absolute refusal. These examples allude to the notion that Wright, though insistent upon granting final approval for all design decisions, was much more
flexible when the design change did not affect his highly valued exterior elevations or primary spaces.

This concept of Wright’s proclivity towards dictating the composition of primary spaces is furthered by a discussion of the apprentice role in the design of Fallingwater’s secondary spaces. Chapters Two and Three showed that Wright’s apprentices had a larger role in drafting secondary spaces, such as bathrooms and kitchens, both on other projects and at Fallingwater. Correspondence between Wright and apprentices Bob Mosher and Edgar Tafel also demonstrated that Wright welcomed apprentice input more in regards to Fallingwater’s secondary versus primary spaces. This notion is also accompanied by Mosher’s and Tafel’s pivotal roles in communicating and implementing the Kaufmann family’s secondary space design suggestions both into drawings and on site. Together, the family and apprentices had a great deal of influence over the creation of Fallingwater’s bathrooms. This contrasts with frequent portrayals of Wright as an obstinate designer and reveals nuances of compromise. It also demonstrates that Wright acknowledged a hierarchy in the design of the house and allowed the accommodation of client requests even later into the process.

As was addressed in Chapter Two, it is apparent that throughout Wright’s career he allowed a higher degree of client and apprentice input in the design of the secondary spaces in his residential designs. In some cases this meant that Wright gave nearly full control to the client and their wishes. An example of this was seen in the design of the Hanna House where Wright provided his client with an empty kitchen, stating that “I’ve given you the proper shell, now you get busy and fill it in.” While leeway was

demonstrably given to the Kaufmanns during the design of Fallingwater’s bathrooms, this should not be confused with a lack of deliberation over these particular spaces by Wright. As has been seen, Wright’s building specifications for Fallingwater devote a large portion of their content to bathroom details and plumbing instructions. Additionally, the detail and frequency with which bathrooms were depicted and discussed in nearly every iteration of architectural drawing and piece of correspondence found in the Avery and Fallingwater collections demonstrate the care with which these spaces were conceived. Regardless of who drafted or conceptualized the specific features within the bathrooms, be they toilet heights or shower drain configurations, there would have been little need for further clarification at the construction site due to the thorough nature of these drafted documents.

*Analysis - Larger Trends*

In addition to the significance derived from the Kaufmann family’s influence, Fallingwater’s bathrooms are reflective of their contemporary technological and cultural developments in terms of utilitarian features. The mere presence of clean water and a septic system in such a rural area as Mill Run, Pennsylvania, was innovative for the early twentieth century. The bathrooms’ novel use of certain elements in the United States, such as Liliane’s bidet, also demonstrates this concept of employing cutting edge technology. Additionally, the Kaufmanns’ request for specific luxury features such as the bidet indicates that Wright clients may have exerted forces on building construction production chains and pulled technological and manufacturing advances by way of creative demand.

Though historians designate Edgar Sr.’s request to lower Fallingwater’s toilets as the result of popular health fads, no documentary evidence was found which
demonstrated that sinking any of the bathroom fixtures was the result of this influence. However, Fallingwater’s fixture selections were being made during the height of the public sanitation age. This early twentieth-century era saw an influx of concern regarding hygiene which manifested in the implementation of products and facilities which aided in maintaining cleanliness, such as the use of impermeable products like tile in bathrooms and hospitals. During the time, low-set commodes were thought to be more natural to use due to their position near the ground and were thus thought to be a healthier option. While it is uncertain whether or not this concept carries over into the sinking of bathtubs and showers, the bathroom fixtures as a whole illustrate unique practices. As can be seen by contemporary bathroom design, these practices were trend-setting in addition to being reflective of their clients’ wishes.

Additionally, the use of cork as a finish material became quite fashionable during the mid-20th century. The 1948 edition of Architectural Forum, which was entirely devoted to Frank Lloyd Wright and his works, demonstrates the presence of cork products in home interior advertisements. This one publication contains advertisements from two different cork manufacturers, Corinco Cork Tile® and Kencork®, which promoted the use of the material on walls, floors, and even staircases. The commercial push of this finish product, either directly or through general public awareness and promotion, contrasts with the consumer-driven market pull that the Kaufmanns may have created in introducing the bidet.

Another popular commercial product that Fallingwater’s secondary spaces utilize was Formica for kitchen countertops. The 1938 Architectural Forum, also

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dedicated to Wright, includes an advertisement for Formica which describes the product as “thoroughly smart and modern.” Though it is uncertain as to whether or not writer Franklin Toker’s claim that Edgar Sr. gained access to Formica prior to its patenting for laminate use, the timing was likely close enough to conclude that Fallingwater was one of the product’s earliest users. This assumption furthers the notion that secondary spaces, particularly those at Fallingwater, were a prominent outlet for the early adoption of novel commercial products and evolving technologies.

Beyond representing bathroom trends at a pertinent moment in the development of the industry, an additional point can be made in regards to the significance of Fallingwater’s bathroom fixtures and related systems. Not only are these systems representative of cultural trends, but they are the outward expression of the historic “heating, plumbing, and electrical systems” that the National Park Service advises “can contribute to the overall character of the building” in “Preservation Brief 18: Rehabilitating Interiors in Historic Buildings: Identifying and Preserving Character-Defining Elements.” While these elements can be historically significant in bathrooms of any era, Fallingwater’s bathroom fixtures are particularly indicative of a period when

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4 The Formica company transitioned from making electrical parts to decorative laminate products by 1930. These products were the company’s focus from 1931 to 1949, but production waned with the onset of WWII as the company largely switched to making military supplies. Regardless, Fallingwater made use of this product during its earliest period as a decorative laminate. “Our History,” *Formica Group*, accessed March 17, 2015, http://www.formica.com/en/us/about-us/our-history; A letter from Bob Mosher to Frank Lloyd Wright, dated March 27, 1937, does refer to this product merely as “mica,” however, which might suggest that the specific decorative product hadn’t been fully developed and commercialized as “Formica” by the time of Fallingwater’s construction. From Fallingwater Archives: Letter and Correspondences, 1937-38.

plumbing products became highly industrialized and commercialized by companies like Kohler Co. In 1927, less than a decade before Fallingwater’s construction, Kohler became a “full-line” plumbing products manufacturer and took advantage of new technologies which enabled them to produce cast-iron and vitreous china fixtures in various colors.6 Only a few years later, Fallingwater’s bathrooms employed these specific type of fixtures.

The house’s radiant heat system illustrates additional technological and commercial developments. This system was designed by the Thrush company, a “leading pioneer in the hydronics industry,” which began utilizing the newly invented “water circulator” in hot water heating systems in 1928.7 While it is uncertain when the Thrush Flow Control System, the specific system used at Fallingwater, was invented, Thrush produced a catalogue in 1938, “Hot Water Heating System Flow Control,” which solely promoted this system. This suggests that Fallingwater may have been one of the first patrons of this product as well. An undated Thrush catalogue, located in the Edgar J. Kaufmann Papers, which uses their commission to Fallingwater as advertising

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demonstrate further allusions to this claim. The cover of the catalogue boasts an image of Fallingwater, with the claim that Thrush heating products are located “In the nation’s finest homes.” The inside of the catalogue also contains a description of the services provided by Thrush engineers and a floor plan of Fallingwater’s radiator piping.

The use of innovative plumbing technologies and products is an important character-defining feature of many historic bathrooms. Other Wright-designed houses, such as the Darwin D. Martin House, in Buffalo, New York, provide an example of this concept. The Martin House was likely the first of Wright’s designs to include an indoor shower. Though the brand was unable to be determined, this shower is of the “rib cage” style, meaning it contains water spouts on several curved pipes that mimic the shape of a rib cage. This shape would, in theory, provide a more thorough cleaning experience. While the exact date that the rib cage shower was invented was not determined, it is believed to be around the turn of

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10 This was surmised from a comparison of a comprehensive collection of Wright-designed floor plans. This collection is found in William Storrer’s book: The Architecture of Frank Lloyd Wright: A Complete Catalogue (Chicago: University of Chicago Press, 2002).
the twentieth century.\textsuperscript{11} As the Martin House was built in 1905, this feature is likely a continuation of the theme that Wright-designed houses employed the newest products available on the market.

\textit{Analysis – The Challenges of Preserving a Secondary Space}

Despite the historic significance of bathrooms and their features, little attention has been paid to the design and evolution of these spaces both in general and specifically at Fallingwater. As was demonstrated in Chapters Two and Four, historic preservation instruction and policy also often overlook secondary spaces. The post-construction treatment of Fallingwater’s bathrooms provides a classic example of how these dismissive attitudes manifest in historic house museums. Prior to the widespread proliferation of preservation principles, one of two things occurred in regards to the treatment of bathrooms and other secondary spaces. There was either a lack of instruction regarding the treatment of historic spaces and materials, or the existing instructions encouraged replacement or, what are now seen as, improper treatment options for these important features. This can be seen at Fallingwater in occurrences such as the undocumented replacement of an indeterminable amount of cork tiles and a toilet seat cover, the removal of Liliane’s bidet, and the use of bleach, a harsh chemical, to clean water stains from cork.

Fortunately, with the rise of preservation education over the last several decades, institutions like Fallingwater have begun making efforts to undertake best practice methods. This was seen in the final phase of Fallingwater’s Guest House Bathroom

\footnotesize{\textsuperscript{11} “Toilets, Showers & Etc.,” \textit{Vintage Plumbing Bathroom Antiques}, accessed April 19, 2015, \url{http://vintageplumbing.com/toiletsshowersetc.html}}
project in 2007, which enlisted the help of a cork manufacturing professional and included documentation of the process. Furthermore, the decision to reinstate bathroom doorway chains for all levels of visitors also demonstrates a cognizant effort to maintain the historic integrity of the bathroom spaces specifically. Though this decision required reducing the amount of interpretation the bathrooms received, it shows a careful deliberation of the balance required to both display and maintain the physical integrity of the rooms. The shift in treatment over the past few decades indicates that the implementation of Fallingwater’s “preservation” philosophy, as opposed to prior neglect or insensitive repairs and replacements, has started to extend into the bathrooms themselves.

While recent efforts show an increased interest in following best practice, there still exists a lack of instruction for the preservation of secondary spaces. This is true both at the institution level, as demonstrated by Fallingwater’s manuals and guidelines, and at the national level. As was seen in Chapters One and Two, the National Park Service provides the only direct instruction on the topic. This specific reference, however, is to the physical and visual detriment of the secondary spaces themselves. The National Park Service endorses the devaluation and physical alteration of these spaces in contrast to primary spaces. Acknowledging that this issue needs to be addressed on a larger scale, the following section will provide general recommendations for the treatment of Fallingwater’s bathrooms. While these recommendations are relatively specific to Fallingwater, they may be adapted for the needs of other facilities.
Recommendations

Before providing recommendations for the treatment of Fallingwater’s bathrooms, a few statements can be made regarding current practices that are working well. Because there seems to have been a recent shift in conducting equal amounts of maintenance and preservation work in the bathrooms as in more primary spaces of the house, this section encourages the continuation of this more inclusive approach to preservation. While it is understood that there are limited funds and hours available to maintain the entire Fallingwater complex, an appropriate amount of focus should be placed on the upkeep of secondary spaces. Whether this means taking advantage of volunteer and intern abilities or addressing these spaces when a project has already been set up in an adjacent room, proper planning can enable the best use of resources and time.

A second practice which appears to be serving the bathrooms well is the use of chains to prevent visitors from entering the spaces. While these chains feel prohibitive to some degree, they do help maintain the integrity of the cork floors and other objects without blocking visual access into the rooms. Having the water turned off to the bathrooms also lends itself to the feeling that these bathrooms are inoperable, but it is likely helping to prevent further deterioration of the plumbing systems and fixtures. As Fallingwater is a house museum, the longevity of these features and finishes is not necessarily dependent on their current usability but rather their ability to be retained in situ and made available for visual observation.

Recommendations for the treatment of Fallingwater’s bathrooms have been divided into three general tiers. These tiers do not include specific instructions for work to be done but rather provide conceptual frameworks for treatment options. While the first tier requires the least amount of change, the third tier is not likely entirely viable at this
point in time. It is the aim of these recommendations that a practical balance can be found when considering the future care and use of these spaces. Ideally the first tier would be implemented immediately, followed by the eventual adoption of the second and then third tier in that this final tier relates most to best practice procedures.

The first tier is the least invasive and least preservation-minded. In this scenario the bathrooms would remain as they are, serving as an auxiliary space without much of an interpretive role. This would allow for the current function of the bathrooms as storage locations for cleaning supplies and dehumidifiers to continue. As is currently the procedure, shower curtains would partially shield showers and bathtubs which contain these items on temporary shelving units. This route would also maintain the current interpretation policies which discourage tour guides from directing focus to the bathrooms but enable them to answer visitor questions on the subject.

The only variation between this tier and the existent Fallingwater procedures would be the implementation of preservation guidelines for the documentation and specific treatment of the bathrooms and their unique materials and features. This would likely take the form of a section in the current “Preservation Manual” which directs proper approaches for cleaning, maintaining, and, when necessary, replacing bathroom materials and fixtures. These instructions would foster a greater appreciation for practices which retain historic integrity in the spaces—a movement already instated in many parts of the house. Additionally, and as the current “Preservation Manual” does request, anytime maintenance and preservation work is completed in any area of the house it would be documented with both photographs and written elements. This practice would help to maintain an accurate record of materials replaced, products used, and any issues faced while the work is undertaken.
The middle tier of recommendations would build upon the first tier’s encouragement of proper documentation and preservation practices in terms of physical work done to the spaces as described above. In addition to these principles, additional documentation would be generated in the form of annual condition assessments. These assessments would examine not only the bathrooms but all areas of the house. The current “Preservation Manual” does propose this action, but it does not appear to be currently practiced. Annual assessments would allow for the identification and regular analysis of baseline conditions such as moisture levels and crack depths, in addition to aiding employees in the diagnostics, monitoring, and prevention of material and structural deterioration.

An additional aspect of the second tier of treatment would be the removal of shelving, cleaning supplies and non-interpretive objects from the showers and bathtubs. In this scenario only the closed-front cabinetry would contain anything which did not reflect the interpretive décor in the bathrooms. Removing objects from the showers and bathtubs would allow the shower curtains to remain open, thus better exposing the showerheads, faucets, drains, and related hardware for visitor observation.\textsuperscript{12} As

\textsuperscript{12} It would still be advised to maintain the presence of shower curtains as the house is interpreted as a
was discussed in the *Analysis*, these elements are important components of the historic plumbing systems and should be on display. Furthermore, continuing the storage of supplies in the cabinetry does not create a visual intrusion as these furnishings remain closed during tour operation hours.

The third tier proposes major changes which would require long-term planning. While this level of recommendation includes the increased documentation, annual assessments, and proper guidance for preservation work as proscribed in the first two tiers, it also encourages the active interpretation of the bathrooms. While the current access limitations should be maintained to preserve the physical integrity of the spaces, the significance of the bathrooms as related to the Kaufmann family and technological bathroom developments should be acknowledged. This could be limited to the additional interpretation during only certain levels of tours. This practice would likely require the lengthening or reallocation of time spent touring the Main and Guest Houses at Fallingwater, but would allow for further discussion regarding the significance of these spaces. This discussion could provide a deeper understanding of the role that the Kaufmann family played in designing the house in addition to strengthening the argument that Fallingwater makes use of innovative products and technologies.

In addition to these suggestions, not only would all non-interpretive objects be removed from the bathrooms, including from the cabinetry, but the Servants’ Quarters Bathroom would be converted to an interpretive space only and not continue as an operable restroom. This change would allow for the removal of the cleaning and kitchen supplies currently located in the bathtub, but also for the water to be shut off to this space. As was seen in Chapter Four, over time the functionality of the plumbing lived-in space complete with linens, bath towels, and rugs.
fixtures at Fallingwater has led to some loss of historic fabric and design integrity in all of the bathrooms. If the Servants’ Quarters Bathroom no longer required a functioning water source and plumbing system, some of the destructive plumbing repairs that were previously deemed necessary, but proved invasive, could be prevented in the future. As this bathroom is currently only used by Fallingwater employees in the nearby offices, the existing additional bathroom in the basement of the Servants’ Quarters could serve as an alternate restroom facility.

This recommendation touches upon a larger issue regarding the current occupation of the entire Servants’ Quarters by Fallingwater employees. Though employees originally inhabited these rooms due to a need for office space, Fallingwater’s current land holdings could potentially allow for either the construction of an additional building, or the rehabilitation of an auxiliary building, for an office program. While it might be argued that reusing the Servant’s Quarters for offices is a form of adaptive reuse, which is a valid preservation method, the current practices are not consistent with the site’s professed “Preservation” philosophy. As defined by the Secretary of the Interior’s Standards for the Treatment of Historic Properties, pure “preservation” does not disallow the installation of temporary fixtures, such as the current office desks and lamps. However, the Standards do proscribe that when giving a space a new use via the preservation route it must “maximize the retention of distinctive materials, features, spaces, and spatial relationships.”13 The function of these particular spaces as offices means that the rooms’ original furniture and fixtures have been relegated to storage facilities elsewhere onsite, as well as that there has been a rearrangement of the spaces.
to meet office needs. These realities do not promote the active retention of the features and layouts which define this space’s historic integrity. While actively using these spaces is a form of protection, their current use is not consistent with the interpretation and preservation philosophies for the rest of the house.\textsuperscript{14} It is not the aim of this thesis to argue that these spaces should be returned to their original configuration. However, extending the related proposed treatment of the Bathroom to the entirety of the Servants’ Quarters would be a logical conclusion.

\textit{Wider Applications}

Though these recommendations are specifically geared toward the bathrooms at Fallingwater, the principles apply to other historic sites. Throughout the years the importance of secondary spaces within an historic structure have been downgraded in both understanding of their significance and options for their treatment. As seen with the National Park Service’s advice, common practice has often been to treat these spaces as storage facilities or to relegate alterations of the historic fabric to these areas when it has been deemed necessary to upgrade the structure. As has been seen in the case of Fallingwater, the treatment of the bathrooms has often been neglected in lieu of prioritizing more primary spaces. It is likely that the lack of nationwide instruction on the topic of preserving secondary spaces is partially to blame for this dichotomy. It is also likely that similar examples of prioritizing the preservation of primary versus secondary spaces can be found at many other historic places.

As has been stated, the specific findings of this thesis are not intended to be directly applied to other sites. Rather, a similar process can be conducted given the specific circumstances of the site. Prior to conducting any changes a thorough assessment of the resources at stake should be undertaken. This would involve historic research, architectural investigation, and an honest assessment of the condition and amount of historic fabric and design still intact in both primary and secondary spaces. If it is determined that secondary spaces such as bathrooms and kitchens play an important role in conveying the history of the site, then these spaces should receive a proportionate amount of attention. Though the preservation levels described above were developed specifically for Fallingwater, they provide a conceptual framework for levels of intensity in treatments elsewhere.

As proscribed by the National Park Service, there are four treatment options for historic sites: preservation, restoration, rehabilitation, or reconstruction. Out of these four options, the treatment of secondary spaces should not depart from the selected preservation philosophy implemented throughout the rest of the site. However, as every site is different, the most important practice is to find a feasible balance between the function, whether it be interpretation or their operability, and the retention of the character-defining features of secondary spaces.

Conclusion

In order to assess the significance and evolution of bathrooms as secondary spaces at Fallingwater, a thorough examination of their original design process and post-construction treatment was conducted. This examination was enabled by observation of architectural drawings, correspondence, the Edgar J. Kaufmann Papers, Fallingwater...
project reports, Fallingwater historic images and documents, and oral interviews.

Through this study it was determined that these bathrooms are significant. Their significance is slightly more nuanced than that of the house’s primary spaces, however, which is derived from their association with Frank Lloyd Wright and his acclaimed architectural style. The bathrooms’ significance, rather, is that they are indicative of a process by which the Kaufmann family imbued their own distinct tastes and desires upon these spaces through a collaboration with both Frank Lloyd Wright and his apprentices. This resulted in the development of bathrooms which are specifically reflective of client requests and their associated priorities.

The significance of these spaces also comes from the fact that they are the built expression of a moment in time with respect to their use of different products and concepts. These products and concepts illustrate cultural and technological plumbing

![Figure 5.4: The bathrooms’ compositions and finishes do not ignore aesthetics. (Photograph by author)](image-url)
and material developments of the time. Many of the elements and techniques which were utilized in Fallingwater’s bathrooms had either just become available or previewed forthcoming trends—such as Kohler’s subsequent development of a low-set toilet like those which were simulated at Fallingwater. While it could be argued that Fallingwater’s bathrooms deserve appreciation based solely on their location in such an important house, their significance relates more broadly to secondary spaces in other locations. The information learned from studying these types of spaces, such as the priorities of clients and the character of the early twentieth-century bathroom industry, can help deepen our understanding of these topics today.

These findings also highlight a contrast between the actual significance of secondary spaces and earlier perceptions of secondary spaces in a theoretical vein. As was discussed in Chapter Two, changing perceptions on this topic have been portrayed by written authorities. The increasing valuation of secondary spaces is not intended to undermine the significance of primary spaces, however. This thesis acknowledges bathrooms as secondary spaces and understands that these spaces fell lower on the primary architect’s design hierarchy. By their very nature these spaces are secondary and warrant a higher degree of privacy in addition to program-specific finishes and fixtures. It was discovered, however, that these spaces were more highly prioritized in terms of client control and livability requests. In relation, Alfonso Corona Martinez’s and Malcolm Quantrill’s aforementioned claim in reference to Louis Kahn that secondary spaces are “merely useful” in contrast to their “aesthetically-ruled” primary spaces is not entirely accurate.\(^\text{15}\) While Fallingwater provides an example of how Wright-driven aesthetics

were more forcibly used in primary spaces, it also demonstrates how the Kaufmann family’s interests drove the composition of the bathrooms. Whether it is the result of the decorative objects, cork finishes, or selected fixtures, an intentional design and aesthetic are present throughout Fallingwater’s bathrooms.

A further and more glaring contrast in allocating significance is provided by the National Park Service’s claim that secondary spaces “tend to be of less importance to the building and may accept greater change in the course of [rehabilitation] work without compromising the building’s historic character.”16 As has been seen throughout this thesis, bathrooms play a very important role in defining a building’s historic character. As is the case with Fallingwater’s bathrooms, these spaces are often reflective of personal family interests but also of technological developments and commercial culture. Though the historical narrative of all sites varies, in a place like Fallingwater whose very claim to fame is garnered by the temptation of technological limits, acknowledgment of the features of these secondary spaces can provide additional meaningful depth to the building’s history.

At this point in time there exists a need for the reevaluation of guidance for the preservation of secondary spaces. As has been seen, the National Park Service as the guiding source on preservation practice provides conflicting accounts of the significance and proper treatment of these spaces. These conflicts have manifested in a lack of institution-specific guidance on the topic. While monetary and temporal priorities have to be balanced with the needs of historic sites, there is a current opportunity to rally additional interest and support for the preservation of these spaces.

As was noted in Chapter One, a contemporary fascination exists with the inner contents and décor of people’s homes. This is made evident not only by the popularity of house tours but also by the frequent renovation of spaces like bathrooms and kitchens. Chapter Two also demonstrated a recent shift in the focus of writers towards acknowledging the sociocultural importance of the development of these spaces. At Fallingwater specifically, Denise Miner noted that visitors seem to be particularly curious about the finishes and fixtures in the bathrooms, nothing their particular fascination with items such as the showerheads. If it were possible to combine this current interest in the composition of secondary spaces, and related potential sources of advocacy and funding, with a reevaluation of the significance of these spaces, such as the one provided by this thesis, it might be possible to enact a redistribution of focus towards secondary spaces in preservation practice and guidance.

17 Denise Miner, telephone interview by author, January 6, 2015.
APPENDICES
APPENDIX A:

GRAPHIC COMPARISON OF WRIGHT’S SECONDARY SPACES
Isabel Martin Residence - Graycliff (1927)
Derby, NY

Jacobs’ First Residence (1936)
Madison, WI

Jacobs’ Second Residence (1944)
Madison, WI
Fallingwater (1936)
Mill Run, PA
Fallingwater - Guest House & Servants’ Quarters (1939)
Mill Run, PA
Hagan Residence - Kentuck Knob (1956)
Chalk Hill, PA

First Floor
APPENDIX B:

INTERVIEW TRANSCRIPTIONS
Interview with Albert Ohler, Fallingwater Senior Maintenance Specialist - 1/2/15.

Amber Anderson: Would you just say your name for me?
Albert: Okay, Albert Ohler.

Amber: Alright, do you have the questions in front of you? Are you familiar with them?
Albert: Yes I do.

Amber: Okay I’ll just start from the beginning then if you are ready. Unless you have any questions for me?
Albert: I don’t think so.

Amber: Okay. So how long have you been employed at Fallingwater?

Amber: And what is your current position title?
Albert: Maintenance.

Amber: Alright. Have you had any other positions while employed at Fallingwater?
Albert: Well, I have. Because I worked here between 1972 and 1973 over at the Nature Barn, over where the offices are now. I worked for John (inaudible) over there. He was in charge of that and I worked over there and that’s when I made the water fountain that is up behind the Farm House and I made fire places up on the hiking trails for the campers and I did some work behind the barn. Then in 1980, I believe it was in the summer of 1980, I worked here. Then in the summer of 1983 I worked at what was then the restaurant, which is the Gardner’s Cottage now, and that’s where they served food at. And I worked here all that summer in 1983. But since 1987 I have been on Maintenance.

Amber: Okay great. In addition to your working for Fallingwater do you have any other connections, like family members? Did you know the Kaufmanns at all?
Albert: Yes well my grandfather was caretaker of the property, my dad’s father, which was Herbert Ohler. He was caretaker of this property when the house was built. My dad’s oldest brother was allowed down around the main house then, where my dad wasn’t because he as younger. And my dad’s oldest brother followed the plumber around that did the plumbing in the Main House and became a master plumber. And then my mother was… I believe she was the first babysitter at Child Care after the Conservancy took the property over. Now, she was babysitter here on this property. They had another babysitter for a while when they first opened up and things didn’t work out and then my mother started watching the children at our house and then she moved down to... uh, there was a big farm house over by the Red Barn and that house used to be Mr. Kaufmann’s secretary’s summer cottage. Mrs. Clinton’s summer cottage and that’s where my mother
started babysitting children back in the ‘60s. And then my mother’s father, which was Bert Shipley, Albert Shipley, he helped to build the house. And then my father worked here for the Kaufmanns back in the ‘60s and then left for a number of years and then came back and worked for the Conservancy from… I believe it was from 1968 until 1984. And that’s when my father passed away. And my father passed away right here on the property in the maintenance shop. And that was in August of 1984.

Amber: So would you say you are pretty familiar with the maintenance and preservation work that has been done throughout the duration of the house’s life?

Albert: I mean some of it, some of it. I was here when they stripped the paint off and I helped to strip the paint off of the house when we done the stripping with the Peel Away 2 and we repainted that. They put the primer on and repainted that and uh… You know, I’ve helped with some of it. Now I haven’t helped with some of it as much as other people have but you know over the years I have helped with some.

Amber: Are you familiar with the Secretary of the Interior’s Standards for the Treatment of Historic Properties?

Albert: No.

Amber: Okay, that is just something that I wanted to ask everyone. It is a treatment guide that the National Park Service puts out for best practice for preservation work, but we can skip that one. So is there any kind of manual or a certain guiding principle that you guys following when deciding what kind of treatment to undertake with maintenance and preservation work on the house?

Albert: Well, there are some things that we have written down… like procedures like how to strip the floors. And I know there’s procedures on what paint to use in the house, what primer to use. Uh, whether it’s… you know, what goes on the outside has one sheen to it and what goes on the inside has another sheen to it. And I know there’s papers written up to that effect. And I know there’s instructions like how to mix the cement. Now I wasn’t sure… years ago I knew we used Type II Portland Cement. Or Type 1A. And I don’t know what they are using now. But I know we had to use that because there was only one place that I could pick that up at and I’m not sure what they are using but we could only get that… years ago we got that from Uniontown Builders and they closed and the only place that we could get that cement at was at Stone’s in Connellsville but now it seems like there just, I don’t know, just going about any place to get it… so I don’t know if they are still using that or not but there was some things written down years ago for that. I’m not sure what practices they are using, what type of mixtures they are using. But I know years ago there was some stuff written down.

Amber: And do you have any idea where any of it was written down?
Albert: No, because I didn’t have that. Some of the guys that were working on the stone work done that and since they... the last 7-8 years, people have changed and I don’t know if they still have that same mixture or what.

Amber: Alright, so I’m going to move on to questions more specifically about the bathrooms now. Do you know anything about the original design of the six? When I say the six finished ones I mean the ones you see on tour… not the laundry room or anything like that. Do you know anything about their original design?

Albert: Well, as far as I know, and I don’t know if this is what you are asking, but as far as I know, all of the sinks, all of the commodes, all the bathtubs, the shower heads, that stuff is all original. The only faucet that I can think of that we have changed here in the house since I’ve been here was we changed the faucet in the kitchen sink down at the Main House and we have changed the faucet at the sink up in the offices, up in the Servants’ Quarters. Those have been changed. All the other sinks and faucet handles and commodes, I think are original. Now I know like up in the office, now, the flush valve and some of that was changed probably whenever that wall was knocked out and I think that was probably about, roughly, I’m thinking around 13 years ago. Around 2001 or 2002, I think. I don’t have anything written down but I’m thinking it was about then. It could have been a little bit longer than that. Now the faucet up in the office bathroom, they were just replaced, I think that was about a year and half ago. I think we replaced those in 2013.

Amber: Was it replaced with anything in particular or just kind of what was available?

Albert: It was what was available that we could get at the distance for the faucets and the pipes because that is not standard size and we couldn’t get... Lynda had picked out I guess a set of faucets that she liked for up there but if I remember right standard size in 4.5”… if I’m thinking right standard size for a faucet is like 4.5” and these are only 4”. So we had to take what I could get that was available in that size so we couldn’t get the ones... Clinton had given me a paper and a picture of something that I guess Lynda had picked out and we couldn’t get it because that was standard size and it wouldn’t fit on these sinks. But as far as I now, I can’t remember in the 28 years of been here I can’t remember that any of the other faucets or anything has been replaced in the house other than... that are original... now the sink in the furnace room, the sink in the basement in the bathroom, those ... I don’t think those were even in here when the house was first built. Those have been put in since that. The reason I’m almost sure that these have been put in since… because the one down in the basement in the Main House… now that commode was replaced since I’ve been here but that sink and faucets are almost like what we have in the house I live in and those are from back in the ‘60s. So that would stand to reason that it was probably put in possibly about the time that the house was open for the public. I’m not sure that that bathroom was original right in the beginning.

Amber: Are you familiar with any of the decisions that were made for the original design? Like do you know if the Kaufmanns made any more decisions about the
bathrooms than Frank Lloyd Wright did or do you know anything about like the original design?

Albert: No, other than I know Edgar Kaufmann jr…. I’m pretty sure was the one they said that picked the cork out in the bathroom. He wanted the cork in the bathrooms.

Amber: And so, all of the fixtures except for the ones you said are pretty much the same? Like they wouldn’t have relocated anything, right? Everything is still in the same configuration?

Albert: Yeah, as far as I know. That stuff is all the same.

Amber: What about what is in the bathrooms? Do they resemble the original decoration, the stuff that’s in them? Like the towels or the vases and the pictures? Do you know anything about that?

Albert: I don’t. As far as some of the decorations that’s been in some of the bathrooms, that’s changed since I’ve been here. Some of the things they’ve had up on the walls… because Lynda has changed some of that stuff. I know that in the Master Bathroom there was something hanging up on the wall and it kind of deteriorated and they took that down. And I think it was the Guest Bathroom, when they refinished it a number of years ago, um there was like a painting they hung up on the wall but that wasn’t there years ago when I first started. So some of the decorations… some of the art pieces I am sure have changed in some of the bathrooms because they have changed since I’ve been here.

Amber: How would you say the physical conditions have changed? How would you compare them to how they were originally, or at least since you’ve been there? Like the paint, the cork, the cracks in the walls? How would you compare them with how they’ve changed through time?

Albert: Well, some of the bathrooms had gotten worse. The Master Bathroom and Edgar Sr.’s and Edgar jr.’s Bathrooms… now the cork on those I can’t remember that anything has been done there. Now the Guest Bathroom, at the top of the steps on the second floor, off of the Guest Bedroom, that cork has been deteriorated at different times because water has come down through from the planter upstairs and Victoria has like in-painted some of those and I know we used some bleach on some of that to get some of that discoloring off of there and…

Amber: Bleach on the cork?

Albert: Yeah, on the cork. And there has been different places that you could see at one time years ago maybe a piece of cork had been replaced and might not have been quite the same size years ago, maybe one that wasn’t quite the same color. But now all the cork has been replaced in the bathroom in the Guest House. That cork was all taken off and then when Dan Johnson was here they put all that cork back on. They had ordered cork and we have new cork here and the cork on the floor is waxed, the cork on the walls are unwaxed and they got new trim pieces of cork and new pieces top pieces that have a little
bit of a curve to it to finish off the cork and they had gotten all new cork and that’s been all replaced since I’ve been here... in the Guest House.

Amber: And as far as the other bathrooms, it was probably just like piecemeal wherever one piece needed it?

Albert: Yeah, because you can see a couple places where there are some places where, and I’m not sure it should have been done the way it was done years ago, but they took part of the old cork out and put another piece in and there are a couple places where it isn’t really lined up real good but you can see where they’ve kind of patched. Now I know the cork floor is very bad up in the bathroom of the offices too, up in the Servants’ Quarters. But that hasn’t been redone.

Amber: So that’s all original?

Albert: Right, there’s probably enough cork here to redo that I would imagine because there is extra cork here. Because I know that floor is in bad shape and of course that wall needs done. You know, the wall has been knocked out when they put the new flush valve in and they never done anything with the wall and of course when that would be redone the cork needs refinished on that too.

Amber: Yeah. You know how there is behind the toilets, I think in the Master Bathroom and Guest Bathroom, there are little removable panels of cork? Do you know what I’m talking about? There is a panel that looks like you can remove it, with maybe knobs to the piping?

Albert: Yeah, yeah.

Amber: Do you know if that was originally designed that way? Or if that was a later fix?

Albert: See it might have been put in later if they had problems. I know where you mean. There’s only one or two places that’s like that.

Amber: Yeah, it’s where there’s not radiators behind the toilets, like where there’s just wall.

Albert: Yeah, you’re right, I think that’s in the Guest Bathroom... I’m not sure but yeah I know where that is at because I’ve had that off and I don’t know if it was originally like that or if they done that afterwards... that I’m not sure about. But I know what you’re talking about.

Amber: So I think there is only stonework in the Servants’ Quarters and then Edgar Sr.’s... I think... there’s only stone walls...

Albert: In the bathrooms?

Amber: Yeah, there’s only two of them right? Like the walls?
Albert: Yeah, let me think. Yeah the Servants’ Quarters and the uh yeah Edgar Sr.’s.

Amber: I guess Edgar jr.’s also

Albert: I think just... yes... yes, jr.’s on that one wall yes. The third floor, the second floor, and the one up in the Servants’ Quarters, those three have like one wall that is stone.

Amber: Do you know if those have ever been repointed or if they’ve ever had any special cleaning done?

Albert: I don’t recall of anything been done for that and I don’t think there’s been any special cleaning. I know years ago I mean we would vacuum the stone and when I first came here we went through all the stones and lightly scraped the mortar joints and if there was any loose stuff and vacuumed it but I don’t think they really even scrape now because at one point they were making marks on the concrete and I think now all they really do is vacuum. I don’t think there’s been really any major cleaning or anything going on there.

Amber: What about any of the windows in any of the bathrooms? Have any of those been replaced? Have they ever had to do any replacement of glass or fix the steel at all?

Albert: Well, now, let me see. Oh I don’t know... I’m trying to think like if the Master Bathroom’s glass would have been replaced. See I kind of think maybe they replaced the glass in the Master Bathroom when they done the glass in the ‘80s because I thought they replaced everything on that side of the house. But... I think some of these panes have been replaced up above on the Guest House too on that clerestory area. I’m almost sure some of that glass has been replaced. I’m almost positive over the years some of that has been replaced because I think some of that was broken and then they took that one glass and I don’t think they used the original. I think they got another glass when they put like the one hole into vent… I don’t know if it was to vent the bathroom... but I’m pretty sure some of that glass was replaced but I can’t remember of any other bathrooms. And I’m not even 100% sure on even the master bathroom. But I’m thinking they replaced that glass when they done the glass in the house but now I’m not 100% sure. Because the new glass had the UV screening in-between and I’m just not sure if they done the Master Bathroom or not now. That would have been the only bathroom that would have been facing that side of the wall, that side of the house, that would have had glass in it. All the other bathrooms were facing the back side of the house. And I’m almost sure they didn’t do anything on any of the ones on the back side of the house.

Amber: What about any of the concrete? Any patching or painting in any of the bathrooms? Has anything ever been done to that?

Albert: Well painting, yes, they have painted. There has been a lot of painting in the bathrooms I know since I’ve been here. I know there’s probably... I’m trying to think. I know I put, when I first came here, I used like a dry wall compound in I think it was the Master Bathroom when we painted that. So over the years there has been in some of
them, I don’t know exactly how many, and I know that the Guest House Bathroom, the paint has been completely redone in it. Um. I’m trying to think. When they needle-scaled the Master Bedroom they didn’t do that bathroom I don’t think the last time because you can see where they stopped the paint. But it has been done since I’ve been here. And I’m pretty sure the Guest Bathroom was done too. I don’t know if any other ones have been done, I just can’t remember. A lot of these things, but a lot of this stuff especially if they done it in the winter, or other times of the year, ya know I had other functions I was supposed to do so a lot of the things I wasn’t involved in when I was doing other things. So I remember when some things were done and some things I don’t. If I had been, and now I can see I wish they would have involved me a little bit more in stuff, then I could have probably answered more questions. Because most of the people who were involved in... most of them aren’t even here anymore.

Amber: You said that Victoria has done a little bit of woodwork, I think in the Guest Bathroom?

Albert: Guest Bathroom, yes. And well see they probably... see they started there again before I came here but um they have went over and I think have preserved and conserved all of the wood at some point in all of the bathrooms.

Amber: Okay, whether it was Victoria or Thomas?

Albert: Yeah, yeah. Because I’m sure some of it was in much worse shape than it is now. And I’m sure they’ve went over that as they go through each one of the rooms that they’ve went through and done upgraded the finish on the cabinets in the bathrooms. Now I refinished, I guess it’s not really the right color, but the shelf that’s in the Guest House Bathroom. As you can see you when you go from the living room to the bedroom, or vice versa, when you look in the bathroom there’s a shelf in there on the wall. Now I done that back in the ‘80s. But I’d always heard she didn’t like the color of it so it didn’t come out quite the right color but they went ahead… because we had it wrapped up for years... because we knew the Guest House Bathroom had to be refinished and they didn’t put the shelf back up until the Guest House Bathroom was done and for years it was wrapped up... wrapped with (inaudible) and we had it stored up here on the shelf in the Guest House… but I had done it… stained it and refinished it years and years ago.

Amber: What about with any of the plumbing or the radiators? Has there been any work done with those?

Albert: Well, yes. Over the years I know there has been because all the radiators do not match. So I know that some of those had been replaced. And now they’ve redone the plumbing in the floor in the living room when they had the floor lifted up. But I don’t think then they replaced any radiators but in the past apparently some of these radiators had been replaced because they are not all the same. From me bleeding the radiators I know that because they are not all exactly the same. So I would say some of them, years ago, had been replaced.
Amber: Can you think of which ones would have been the original ones or which ones are new? Or is it just that they are different?

Albert: Well right off hand, I would know the ones that looked a little different because you can tell like how the design was like in the ones in the kitchen and stuff and like I said there’s a couple of them that’s not like that. But right off hand I can’t tell you which ones. Because even the bleeder valves are different in some of them. That’s the reason I’m almost sure at some time some of these have been replaced.

Amber: And so the Guest House Bathroom is the one that was completely redone and they installed the dehumidifier and everything right?

Albert: Yes.

Amber: What all did they have to do with that one?

Albert: Almost everything in there. I mean, they took the sink out and they redone the walls, they put fans in there for a while. And they put little vents in the walls to try to get the wall to breathe. I don’t know if you saw those or not. They look like little pieces of plastic in the wall because they had such a problem with the humidity and stuff in there and now they have put an AC unit in there and I guess it’s an AC dehumidifier combination I think. For years they had so much problem with moisture in there, they couldn’t get the cork… even when they started to put the cork on in the beginning they couldn’t get the cork to stay on the wall. And they had a fellow come up once, a long time ago, this must have been... probably fifteen years ago or so they had a fellow come up and work on some cork up in that bathroom but they couldn’t get the cork to stay on that wall. And I don’t know if they used Liquid Nail or what but the problem was the moisture, the dampness in there. It does seem like it’s a lot drier now.

Amber: It seems like it’s helped, what they’ve done?

Albert: Yeah.

Amber: And they haven’t done anything like that in any of the other bathrooms right? With ventilation?

Albert: No, not that I can think of. Not in the bathrooms.

Amber: Okay. Has there been any electrical work that had to be done in any of the bathrooms? Like lighting?

Albert: Yes. Yes. In the mirrors, and I can’t tell you now which ones but almost... as the bulbs that went bad… Caleb and Gary have rewired, oh, probably the biggest part of the mirrors. And the whole Main House was rewired in the 80’s. I think in ’88.

Amber: Just because it was outdated?
Albert: Well, yeah, there was a switch that was beside of the sofa in the living room. One
of the little toggle switches and it started to scorch the wood. And I’m pretty sure that
was in ’88. Now, they’ve redone... let’s look at my notes here... And I can’t remember the
guy’s name... Ozzie was the guy’s first name that rewired the house. Him and his sons
done... they were related to... Blaney Sproul was our maintenance boss then and he, this
guy, was related to Blaney. And they rewired the whole Main House. I think they done
the Guest House too. But then Gary has done a lot of work even to the Guest House. And
then recently, within the last five years or so, as the new fluorescent tube bulbs have come
into play, they have redone like, it’s a new fluorescent fixtures... in like the center of the
living room and they’ve changed some of them so they are compatible with the new light
bulbs. And I know in the Guest House, over the years, most of the fluorescent bulbs had
starters for the bulbs... as they went back through and redone that wiring they done away
with the starters and put new ballasts in that were rapid start ballasts... so they took the
starters out. So we don’t have hardly any lights in the whole house that even have starters
anymore in them. But... I’ve kind of lost track on what question we’re on now.

Amber: Just if there has been electric work done in the bathrooms.

Albert: Okay, that’s part of question number five right?

Amber: Yes.

Albert: So, yes there has been electrical work done in the bathrooms. And I’m almost
sure when Ozzie done that wiring back in the ‘80s then they done the receptacles and
stuff then too. I think they done those then. But I know as we’ve went through and the
lighting in the sinks, the mirrors... Gary has redone those. And he put new ballasts and
stuff in there. And I can’t remember now because we’ve pulled so many of those off to
put new bulbs in... but I know as far as wires and stuff in the mirrors themselves, the
new ballasts... we’ve put almost all new ballasts in the mirrors in the probably last ten to
twelve years. I know they’ve done work to those, in the mirrors.

Amber: Someone mentioned that all of the water has been shut off to all of the
bathrooms?

Albert: Yes, it is supposed to be. Because when they put the sewage treatment plant
in... that was about the time they done that and we shut the water off to the bathrooms
like upstairs in the house and everything and we never turned the water back on in
those bathrooms. It was on up until that point because occasionally I would open up the
showers and kind of check them and the showers would still work and the commodes
would still flush and everything. And that was probably done, oh, I’m thinking we might
have shut the water off to the bathrooms possibly around 2001... because we done that
after Jeff was here as our maintenance boss. Jeff came in 1996 as our boss and I think he
left in 2006... because Jeff was here when the sewage treatment plant was put in when we
did all that and that’s when we shut the water off to the bathrooms in the Main House and
the Guest House. Now of course the bathrooms are still functioning up in the Servants’
Quarters... but the Main House and Guest House should all be shut off. And I think that’s
the time we done that and we never turned them back on. But some of the commodes I remember we would have problems with them when we tried to flush them some of them would try to overflow and stuff and then we’d have to put new parts in and I think that’s part of why they turned the water off so we wouldn’t have that problem anymore.

Amber: So how was all of that set up before they did that in 2001? Where did the water come from? Where was the septic tank? How did that all work?

Albert: Okay well the septic tank was down below the falls... down at the bottom like at the level down towards the stream, down below the kitchen down in there. It was clear down at the bottom. And I was thinking, now I did have to ask Dave about this, I know about where it was... now I was thinking it was a metal drum or tank... it wasn’t… Although maybe now I’m thinking that he said they found a drum or metal tank down here by the house... and maybe that’s what I was thinking about... but he said that that one actually was concrete blocks... down there below the house. And it was along the side of the stream but it was clear down below the house. Because I remember when they had the pump down in there to pump it out and stuff and I remember I worked that night and tried to help them pull the pump out and stuff. That’s the reason I know about where that was. It wasn’t level with the basement of the house... it was down farther. Clear down over the hillside. But it was down close to the stream.

Amber: So what was the water source for the house?

Albert: Well the water came from the stream. And then they had a reservoir on the other side of 381 and then they had a pump system... a little pump house up by the old maintenance shop. Not far from that. But it came from the stream, from the reservoir. And it was upstream from 381. That’s how the water was all fed to the house.

Amber: Alright, and so all of that was kind of the same until 2001?

Albert: Yes, when city water came in they changed all that. And in fact, the reservoir... I haven’t been up but as far as I know I think they completely took that reservoir and everything out up there. Because I remember when my dad was here he had to go up and they had to check the reservoir and everything and make sure the screens weren’t plugged up... they had to go up and do that I think every few days they had to go up there and do that. And that was where you go out to the main entrance… you went across from the main entrance and there was a little trail up there, like an old road. I don’t know if you ever saw that when you were here or not but you could go up there towards the reservoir. And then when you left the maintenance shop, as you were going out from the maintenance shop and went out to the main entrance I don’t know if you ever looked up to the right-hand side and saw a little cement block building up on the right-hand side or not up there before you get to the... okay that’s where the pump was.

Amber: So the city water didn’t come until 2001?
Albert: That’s about when it come in probably, around 2000-2001. Because then they put the sewage treatment plant in I think right after the city water came through. The city water came first and then they put the sewage treatment plant in.

Amber: And doesn’t that piping run up the back driveway kind of?

Albert: Yeah, because it comes down from the sewage treatment plant on Tissue Lane and comes clear down to the Main House.

Amber: Okay. Kind of backtracking a second... so the water for the toilet and the sink in the Servants’ Quarters is obviously on... do you know if the shower and the tub water is still on?

Albert: I think that water is still on up there. I’m pretty sure it is. Because I don’t think we turned any water off up there. Now I’m down in the Laundry room and I’m trying to see... uh... if there’s any valves down here. But I don’t think we have turned any water off to the tub... I don’t think so. I think that one should still work.

Amber: I remember asking Scott about that when I was working in that bathroom this summer and he thought that the water to the shower head was off but it seems like it might be on.

Albert: I don’t think so. But I mean we can check that.

Amber: Alright. So question number 8 on that page. Would you say that more maintenance and preservation work is done in other spaces at Fallingwater versus the bathrooms? Like would you say that the terraces and the living room have more priority? Or do you think there is any type of correlation?

Albert: Well, you know... we’ve discussed how long the bathroom up in the offices has been torn up... since that time most of the terraces… almost all of the terraces have been done once and some of them have been done twice. I’d say... there again even when they needle-scaled the bedroom I know... like the master bedroom when they needle-scaled it... I know they did the bedroom but they didn’t do the bathroom. So I would say pretty much that some of the other things are higher on the priority list than the bathrooms have been.

Amber: Yeah that makes sense.

Albert: Of course they’d done other work and they hadn’t done the Guest House Bathroom either. For a while we had the Guest House Bathroom shut completely off. For a number of years we just shut the door on that. Because people couldn’t see in the bathroom.

Amber: I think I’ll just skip question number nine because it sounds like there is a lot of original material still in the bathroom.

Albert: Yes, as far as fixtures and everything there is. Yeah.
Amber: And cork it sounds like, other than a couple repairs where needed.

Albert: Yes, that’s what I would say. I would say probably 75%... to 85% or so of the cork in the Main House is probably all original.

Amber: Alright, last question. Do you know if the bathrooms originally had chains from visitor access? Or do you know when that was put in?

Albert: I’m almost positive that was not original. That was put in after the house was opened for tours. But I don’t know exactly when the chains were put up. But I’m almost absolutely positive that that was not original. Because I know at one time... of course they have a chain going into the kitchen from the living room... at one time they had a chain at the bottom of the living room steps... or the living room, before you go up the steps. They had a chain going across there. And the tour guide would take the chain down as the tour went up the steps. And I’m almost absolutely positive that the chains were put up after the house was open for tours. But I don’t know when it would have been done.

Amber: Gotcha. Do you know why they put them up for the bathrooms? Small space?

Albert: Well, yes. That was probably one thing. Because you know how can twelve people get in the bathroom at one time? Now at one point, I do know we done this, after they started the In-depth Tours... and I can’t remember exactly what year this all happened... but at one point since I’ve been here they allowed the In-depth Tours to go in the bathroom. And I told Lynda at the time... because you figure each In-depth Tour has I think an average of about twelve people in each In-depth Tour... well if you have four or five tours in the morning look how many people that’s in there on those cork floors every single day. And I told Lynda, it’s wearing the cork down. I could tell a difference. With that many people in and out of those bathrooms. And they did stop that. They stopped the In-depth Tours from going in the bathrooms. At that point. But for a while they let the In-depth Tours in the bathroom. But I could tell a difference on the cork floors. You know, I mean that was a lot of people in and out of those bathrooms. And it was damaging the cork floor. I could just tell a difference, because there was more wax taken off the floor... you could just tell that it was wearing them down. So, it just stands to reason that it would do that... that many people walking on them. So then they put the chains back up. The chains I’m almost positive have been added since the house was open.

Amber: Okay, alright. Is there anything else you can think of?

Albert: Well, yeah, there was one question. And I’m not sure which one it was. There was uh... somewhere that you had asked about if I knew who has all worked on the stone?

Amber: Yeah, or anything in the bathrooms?

Albert: Okay. Now I have a list of different names that I know have worked on these stones in some capacity. Whether it’s been on the stone floors in the living room when they were pulled up... whether it was stones in the wall... because a lot of these capstones have been replaced on a lot of these walls. Where it goes past up above the office
bathroom... when they put the lead flashing on... you know, those top stones have been
taken off and over the years I know there has been a number of people who have worked
on those. And I wasn’t sure if you wanted specific names of who worked on that or
exactly what you wanted.

Amber: Sure, yeah, that’d be great.

Albert: Well, I know since I’ve been here Dan Johnson worked on those. Jerry (inaudible)
worked on those. Carl Nicholson worked on some of the stonework when he was here.
Dave Younkin has worked on stonework and joints since he’s been here. Coy (inaudible)
worked on some. Um, Roger, that’s here now, has worked on ‘em. And Tim Stephens
worked on stonework and mortar joints. Um, Earl Friend would have worked on some of
the stonework. (Inaudible) would have worked on some when he was here. And my dad,
Harry Ohler and (inaudible) would have helped with some of the stonework when they
were here years ago. Now the two people that worked on the theatre when it was redone...
when it was converted from the carport into the theatre was Dan Myers and JC Bessinger.
Now I know my dad and Larn and Earl helped then when they renovated that. Now I
don’t know if Jim and JC would have done any stonework or not or if they just done
most of the carpentry work. But they possibly could have. See I don’t know who done the
stones out from the office doors because right in that area, that open bay that’s left up here
in the carport areas see all those stones were done I’m sure probably when the carport
was converted over to the theatre because that should have been gravel in there. And all
those stones have been done. So Larn, and my dad, Jim, JC, Earl, any of those could have
done that work. Now also I do know a number of years ago, I’m thinking about 20 years
ago, we had a company that came in here that was called Masonry Preservation that done
work to like the chimney mass and they done work to the stonework. They did work on
the stone. And I’m sure they’ve got a record of when Masonry Preservation were here.

Amber: Yeah, I’ve seen that in the ASB.

Albert: Okay. Uh, that’s all I can think of.

Amber: Okay, that’s great.

Albert: I don’t know if this is helping you and I hope I’m giving you the right
information.

Amber: No no, very helpful. Thank you so much. Is there anything else that you can think
of?

Albert: Um, I’m trying to look. I wish I could remember the name of the guys that
rewired the house. If I think of that or can figure out who done that do you want me to
call you back sometime? His name was Ozzie and his son was Bruce. Ahh but I can’t
think of their last name. He was related to Blaney... that’s how they got them. Oh and
I can’t think of their last name. My mind is just a blank now.....they were relatives of
Blaney and that’s the reason they got them to come in and rewire the house. I tell you
somebody else that probably done some stonework... Amy’s first husband, Cecil Keifer, probably worked on the stonework too. He’s another one that would have worked on the stonework too I’m sure. I don’t know, I mean, I hope that gives you some of the information that you wanted.

Amber: Yes for sure.

Albert: Okay I hope I didn’t go to long. They said we’d probably do this in about an hour, I guess that’s about what we’ve done. I think this is as much as I can really remember though. So I hope it helps out. And I hope I gave you the right information.

Amber: I’m sure you did. Yeah thank you so much. Very, very helpful.

Albert: Okay, okay. And if I can think of Ozzie the electrician’s name... they were to rewire the whole house... but then I think Gary did find some wiring that they didn’t rewire, but they were supposed to do the whole house and I think the Guest House too because I think that was done, pretty sure, in ’88. But I can’t even think of their last name. Ozzie and Bruce. Ozzie was the father’s name and Bruce helped him. Bruce is still doing electrical work.

Amber: Alright.

Albert: Okay well we’ll probably see you in March then.

Amber: Yeah, hopefully. Alright Albert, thank you so much.
Amber: Hi Denise, do you have the list of questions in front of you?

Denise: I do.

Amber: Alright, I’ll just go ahead and start with the first then unless you have any questions for me. How long have you been employed at Fallingwater?

Denise: I’ve been employed here for twenty-eight years.

Amber: What is your current title?

Denise: Public Tour Manager.

Amber: And what other positions have you held while employed at Fallingwater?

Denise: I was hired as a tour guide and later I became a hostess. We now call that position Floor Supervisor. I have been the Membership Supervisor and the Visitor Services Supervisor as well.

Amber: Alright, and in addition to those positions what other types of connections do you have to Fallingwater? Like have you had any family members involved? Did you know any of the Kaufmanns?

Denise: Okay, my grandfather and two of my uncles worked for Mr. Kaufmann Sr. and also helped in the construction of the house. My one uncle was a herdsman at the dairy farm and the other uncle, Earl Friend, and you’ve probably heard him referenced when you were working here I guess and of course the Friend House is named for him… he worked for Edgar Sr., Edgar jr., for the Conservancy and then when he retired he still acted as a consultant so he was always a really wonderful resource because of his longevity and living on the property and he had such a good memory. He was such a great oral historian so he was often asked questions. Then, I married my husband Kerwin Miner and his father, his late father, was the caretaker. His name was Ralph Miner. So he worked for Edgar Sr., Edgar jr., the Western Pennsylvania Conservancy. And my husband worked here in the summer, mowing the lawns and what not. And my sister-in-law and mother-in-law worked in other capacities at Fallingwater as well. So it has kind of been like a family connection on both sides of my family. And of course the people that worked for Edgar Sr. and Edgar jr. knew him obviously personally and were here under the Kaufmann ownership preceding the Conservancy.

Amber: So how familiar would you say you are with the different maintenance and preservation work that has been done to the house throughout time?

Denise: My familiarity with those areas would simply be how it affects me in a tour process. It’s, you know, do I need to talk about that when I’m giving tours? Do I need to train guides in how to speak about it in their tours? I certainly don’t have any hands-
on experience and I’m not involved in the decision making in how the maintenance preservation happens.

Amber: Gotcha, that makes sense. Are you familiar with the Secretary of the Interior’s Standards for the Treatment of Historic Properties?

Denise: You know, I have seen references to those and I think I’ve probably had a chance to look at the document but I haven’t studied or read it. But I think that Scott Perkins could answer questions five and six better than I would be able to. I can remember Justin Gunther referring to the Standards and how we adhere to them. But since it didn’t affect me I didn’t pay too much attention.

Amber: That makes sense, perfect. We can go ahead and just move onto the questions specific to the bathrooms then. So that’s what my thesis is on. It’s sort of looking at the original design and looking at how the six originally designed, main, finished bathrooms have evolved through time. So that’s where these questions are directed. So for the first question, do you know anything about the original design process for them? Who would have made any of the decisions, who wanted the layouts in a certain way? The fixtures, anything?

Denise: Yeah well what I’m remembering is that just in the design process as the Kaufmanns were working with Frank Lloyd Wright that he might… and this could be many things in the house as well… that he might come up with the design, the Kaufmanns would have a discussion with him, and then things would change. So I’m thinking about the example on the first floor entry, that that was…. Right now it is a closet, when you enter the house on the right-hand side, it’s a closet. That was intended to be a powder room and the Kaufmanns said that they didn’t really need a powder room on that floor so then design changes were made to turn that into a closet and create the music room on the left-hand side when you come in. I’m thinking about the Master Bedroom Bathroom… I believe that originally it was to have a tub-shower combination, but that Liliane didn’t want a tub so that that bathroom was modified so that it only had the shower. I know that Liliane’s bathroom did at one time have a bidet and that that was removed.¹ I don’t know why.

Amber: Do you have any idea of when?

Denise: Well I tried to do just a tad of research, thinking you would ask that. I don’t know if you are using Fallingwater Rising by Franklin Toker as a resource?

Amber: I am, I do have a copy of it.

Denise: Well on page 305 he talks about: “The most exotic item in the house was Liliane’s bidet. Bob Mosher appears never to have seen one -in 1936 how many

¹ The Master Bathroom is often referred to as Liliane’s bathroom as it and the Master Bedroom were primarily used by her.
Americans had?—and referred to it guardedly as a B-DEY—however it is spelled’ and that would be Bob Mosher saying that. So then in Tolker’s notes, which are back on page 449, he says, “Liliane’s bidet first appears in a letter from Mosher to Wright, July 17, 1936. Liliane evidently liked it enough to order a second for the Guest House but for reasons unknown it never went in. (Inaudible)… bidet showed up in EJ’s January 25th, 1940 accounting of miscellaneous expenses on the Guest House and encloses: Sold one bidet to Mrs. Robert Frank, for $143.55.” Now, the thing about that is… That wouldn’t be the bidet that was actually in Liliane’s bathroom. That maybe was the second bidet. I don’t know, but when my late father-in-law worked for Edgar Sr., and then Jr., and then the Conservancy, he lived on the property. The home that my in-laws lived in his now the kitchen, where Tom prepares the food. So that was their home. And they lived in that particular house from the time it was built in 1963 until my father-in-law retired in the ’70s. So in 1956, they moved onto the property and at that point they lived in part of what was the original clubhouse. It was like an annex building. So my husband from the time he was like seven or eight years old until the time we married he lived on the grounds. And his older sister Donna as well. And Donna and Kerwin both remember a bidet in Liliane’s bathroom. So that means it had to be here at least in 1956. It was probably here even later. Maybe it was removed when the house became a museum, but I can’t document that.

Amber: Okay, great. Do you know where it would have been in the bathroom?

Denise: Yeah, if you can picture Liliane’s bathroom… if you are looking at the toilet, to the left of the toilet you can see where there are controls for the water… for the bidet. Now it’s hard to tell exactly where the bidet was. My sister-in-law talked about it being a fold-down bidet. And I’ve never had any personal experience with anything like that but apparently it flips up when you’re not using it and it flips down when you are using it. So, next time you’re here you need to go into Liliane’s bathroom and try to figure out how that worked. I don’t know that there are any photographs that show it in existence. It’s kind of a mystery and, as Frank Tolker says, it is exotic. So it’s kind of fun to talk about.

Amber: Yeah, that is interesting.

Denise: So then if I think about other things in the bathrooms… the family story is my late father-in-law, Ralph Miner, made the toilet paper holders.

Amber: Oh, the ones that are currently there?

Denise: Yeah, yeah. If you can picture those, they are a dark wood and the piece of wood that goes through the spool of the toilet paper almost looks like a hair pick… can you picture that? Like a lady with a French twist or something would wear in her hair? Very smooth, very elegant, very simple looking. And then there’s just a single hole in the bracket and that piece goes through the bracket through the spool and out the other side. My understanding is Edgar Jr. designed them or said that he wanted them made in that fashion and then my father-in-law constructed them. So you know it’s certainly not a
toilet paper holder that I’ve ever seen at a Lowes or a Home Depot. It does look like it’s custom made so that’s kind of fun.

Amber: Would those have been there originally? Like they would have put them in at the beginning?

Denise: Um, you know, I doubt that they would have been there when the house was constructed in the ’30s. I’m thinking my father-in-law didn’t come on board until sometime in the ‘40s. So that begs the question how did they hold their toilet paper before, hmm, I don’t know what the answer to that is.

Amber: Well very interesting.

Denise: Um, and just, I don’t know if this is what you want to think about in regards to materials. My sister-in-law remembers that the geraniums growing in Liliane’s bathroom were scented geraniums. And today we still have geraniums growing there but I don’t know what variety they are.

Amber: Alright, nice. Anymore you thought of on that question?

Denise: Um, original design… well just that we have in our training manual and in some of the other resources was that it was Edgar jr.’s idea that the cork would be used. He thought it was a warmer, softer material than ceramic tile. And we in our tour, actually I think that’s a question later on about tour guides… but that is something the guides know about and if there is time they might talk about who made that material choice. And from my understanding, Edgar jr. designed the vanity, the mirrors that are above the sinks. The way the fluorescent tubes sit in behind… mirror in the middle and frosted on the outside. That was an Edgar jr. design. But I don’t know that I can document that either.

Amber: Yeah. Just passed down through the years?

Denise: Uh huh, exactly.

Amber: Alright, great. Moving on to the next question. To the best of your knowledge, would you say that the bathrooms pretty much look the same as they originally would have? Like the configuration?

Denise: Yeah, to the best of my knowledge the way that they are arranged today is how they would have been originally.

Amber: Okay, awesome. So in terms of what is in them… like the towels and the vases and artwork… are you familiar with whether or not any of that is how it would have been originally? Or is that more of a curatorial decision?

Denise: Well, yes. And perhaps Lynda could speak to that better. To my knowledge, the accessories that are in the bathrooms have been there since it opened as a museum. And perhaps Edgar jr. had something to say about which items would be represented… because like even in the house itself, although we have the Kaufmanns’ collection
throughout the house, there have been pieces that have been moved throughout the years. And sometimes Edgar jr. took things out, put things in, or just thought that they would be better displayed in certain areas. So he may have made some changes. But as far as I know, the objects and the towels and so forth are what they would have been.

Amber: Okay, cool. In terms of physical conditions, are you familiar with that at all? How they have fared over time? I know there have been some problems with cork and water damage… I know there is some cracking and delamination in the Master Bathroom. Are you familiar with how those have compared over time in terms of the physical?

Denise: Well, I don’t know about the delamination but I do know that there has been water damage in the different bathrooms throughout the house… where we’ve had problems with the leaks in the ceiling. It has damaged the cork. And I know that over the years individual tiles have been replaced and certainly the Guest House… that entire bathroom the cork was replaced. A lot of time that work happens in the winter when we are closed. So I might not be witnessing or observing that. And sometimes we just close bathrooms and we don’t allow the visitors to see them because there is work that needs to be done or is being done. I think that is about all I know on that.

Amber: Yeah that’s fine. I’m not sure how familiar you’ll be with the work that has been done on each of the individual types of materials… that was more of a maintenance question, but if you have any knowledge about any of the things listed in number five of that section…

Denise: Yeah I think you’ll want to talk with someone from maintenance… perhaps Scott from preservation. Perhaps Lynda, because I know that I see stonework repointings happening at different times and you know it is just something that I observe and the same thing with the cork being replaced. And with windows you know we did have that major steel sash repair when Seekircher came and you know they’ve come different times to work on windows in a variety of places. Umm… yeah that just kind of happens around me. The cabinetry, I mean, Tom Gentle and Victoria Jeffries have been doing conservation work for many years. Scott or Lynda would be able to give you the years that they started working and I’m sure they’ve documented where they’ve worked and what they do. One thing you might want to ask maintenance about would be asbestos removal. Do you have that in your notes anywhere?

Amber: I hadn’t, no, I hadn’t even thought of that.

Denise: Yeah, and it seems to me that it was several years ago that they were doing some work and it involved some asbestos removal and some of the maintenance staff had to go to like special classes to learn how to do that and then have like special suits that they would wear that would protect them as they did that. So that might be just kind of a side thing that you want to research on.

Amber: Yeah, great point. Hadn’t thought of that.
Denise: Yeah… as for additional ventilation, the only thing I am thinking about is the
Guest House Bath… you know that there has been work done there, putting fans in and
dehumidifiers. I don’t have details on that and as far as electrical work in the bathrooms
I don’t have any information on that. But there has been rewiring done throughout the
house to replace wiring that was fragile, brittle. There had been at one time a small fire
I think at the end of one of the couches. So that’s kind of a bigger electrical thing… but
maintenance should be able to help you with that.

Amber: Okay, perfect. So this might not be a question for you either, but do you know if
the water is shut off to all of the bathrooms?

Denise: I do not know.

Amber: Are you familiar with any like septic or water information?

Denise: As a matter of fact, the family story is that when the house was constructed there
were two hand dug septic tanks to the west of the Main House and the Guest House and
that my grandfather, Clyde Friend was involved with the digging of these septic tanks.
So that’s a story that came from my uncle, Earl Friend. And of course you know that we
[now] have the zero-discharge waste water treatment plant that handles septic for the
campus. And as far as the water source… the original water source was a dam on Bear
Run that had been in existence from back when it was a summer camp and water would
flow by gravity down along the stream until it reached the highway. This was a dam that
was on the east side of 381 and I remember that we used to give “Land of Fallingwater”
hikes and that we would interpret the dam. But the water then went in pipes underground
and when it crossed over the stream it was in these boxed contraptions that kept it from
freezing as it crisscrossed back and forth over Bear Run and then when it got to the
highway, 381, it went underneath the highway and it went to a holding tank that was
between the maintenance building and 381… I don’t know if you remember ever seeing
the holding tank?

Amber: Is it up above the road when you are leaving the maintenance shop up on the
right?

Denise: Yes, yes. And there is also a filtering house there. So the filter system in the
original days was a sand and gravel system. And my late father-in-law, Ralph Miner,
one of his responsibilities used to be backwashing the filters. I’ve heard the family talk
about that over the years. Because often times visitors today want to know about the
water being treated and back in those days there weren’t any chemical additives but
it went through the sand and gravel system and it had to be backwashed periodically.
And because of the holding tank the water was up high enough that it produced enough
pressure that it could be gravity flown down to the house and to my knowledge clear
up to the third floor without any mechanical pumps. So that’s pretty exciting. And the
current water system is municipal water that comes from the Indian Creek Valley Water
Authority. So we no longer use water from Bear Run for drinking water or like flush
water either I guess and um the dam was removed several years ago because it was considered an impoundment on the stream and it was taken out.

Amber: Okay, do you remember what year the municipal water came in?

Denise: No, I don’t Amber. Yeah, I bet Clinton would have that. It isn’t anything we interpret. Actually I can probably look that up… if I find it can I send you an email?

Amber: Yeah, that’s fine, that’s perfect. I think Albert said he thought it was around fifteen years ago.

Denise: Yeah… you know sometimes when you’ve been here so long, unless you can associate a date with something in your life… someone being born, dying, graduating… It just kind of runs together. But I know in my “Land of Fallingwater” hike material I have… So I’ll look it up and I’ll email it to you.

Amber: Okay that’d be great. Thank you.

Denise: Yeah, you’re welcome.

Amber: Alright, so to the best of your knowledge would you say that more maintenance and preservation work is done in the spaces other than the bathrooms? Do you think there is a hierarchy in terms of which areas get treated first?

Denise: You know I think there is. And what I think of first is the Guest House Bathroom. Because there was a period of probably more than a year that we kept that bathroom door closed and we just told our visitors that the area was under conservation and we just didn’t show it. I think that it was because it was considered to be a less important room and resources, both and monetary, needed to be expended on other areas of the house first. That would be something that Lynda could certainly speak to but that would be my observation. Now, throughout the rest of the house… we just interpret the bathrooms the way they look and don’t shut them off. And since the visitors aren’t going inside them it doesn’t make much difference.

Amber: Yeah, okay. Again this might not be a question for you, but would you say there is a higher material turnover in the bathrooms versus other spaces? Like would you say that cork gets changed out over the years more than like the flooring in the kitchen? Would you say that there is less hesitation to just replace things in the bathrooms versus try to fix them or anything like that?

Denise: You know I don’t think I can speak to that. I think that would perhaps be a Lynda question. A lot of that would… again, decisions would need to be based on time and money that is available to do the work and I’m sure she can speak to that.

Amber: Alright, perfect. For the last three are interpretation, more directed at you. Do you know when the decision was made to chain the bathrooms off from visitor access?
Denise: You know I do not remember when that was. You know I mentioned that I’ve been here for 28 years but I was here in 1971 as a tour guide and then I went away and I came back fifteen years later and I’ve been here continuously since then. You would think that there would be something that I would remember from ’71 but quite frankly I don’t remember if the bathrooms were chained off then or not. But they certainly have been chained off for a very long time. At one point we used to allow our In-Depth visitors, you know our visitors that take the two hour tours, we would allow them to go into the bathrooms and then we would put the chain up when that tour was completed and the one-hour visitors, the regular tour visitors, would not go in the bathrooms. Now we no longer do that. We now have them chained off from all tours. But we had made kind of an exception.

Amber: Gotcha, do you know why they are chained off?

Denise: Well I think there was a concern about wear and tear on the floor. You know the stone is so very hard we can have five million visitors walking on the stone… so we didn’t want the visitors walking on the cork. But you know also they are very small spaces. So only a few people can be in them at any one time and to allow visitors access to the bathrooms would have slowed down the tour. So it is more efficient to operate tours where visitors don’t go into the bathrooms. That would be important as well.

Amber: Gotcha, perfect. Okay, next one. Do they actively discuss the bathrooms on any tours? I know they mentioned if there is time…

Denise: Well our tours are not scripted so the tour guides are knowledgeable on many many aspects of Fallingwater, Frank Lloyd Wright, the Kaufmann family… but they get to choose what it is they want to talk about, in part based on what visitors are interested in but also what they are interested in. So I would guess that some guides talk about the bathrooms on every tour they give and others don’t. It’s really up to them whether they do that or not. Often times discussions about the bathrooms will be prompted by a visitor question. A visitor will ask, “What is that material?” They are very surprised that there is cork on the walls and floors. The visitor might ask about the showerheads. They seem to be fascinated by those. And when we say that they are original showerheads they are just like oh my goodness, you know, those are popular today I can’t believe it was original then. And visitors will often ask about the toilet height. So they are just very curious as to why the toilets are so low. And those seem to me to be the three things that visitors most often ask about if the guide has not already offered the information.

Amber: Gotcha, alright. I guess for the last question, have there always been things always stored away like in the closets and in the showers?

Denise: Yeah, certainly in my memory the bathroom that is in the administration offices has always had things stored in it. We’ve also used the Master Bathroom for storage. Like the umbrellas that we use out on the terraces. Those umbrellas will be stored in that bathroom when they are not needed outside. I’ve seen sculptures stored in the Master Bedroom Bathroom. I’ve seen things stored up in Edgar jr.’s bathroom. I remember the
door that’s between his study and the hallway, that was in the bathroom for a long time. I can’t remember anything being stored in Edgar Sr.’s bathroom. I don’t recall anything being stored in the Guest Bedroom Bathroom. But the other bathrooms have had things put in them in my memory.

Amber: Just to kind of keep them out of sight because people don’t go in there anyways?

Denise: Yes, like when we were having problems in the Master Bedroom with the leak in the niche by the fireplace and there was concern that it would damage that wooden Madonna and Child, the sculpture was put into the bathroom because it was nearby and it was safe, nobody would be able to get into it.

Amber: Okay, alright. Well is there anything else that you can think of I haven’t covered?

Denise: No, I can’t. I think your questions are very thorough.

Amber: Perfect. Just a random question. So Fallingwater Rising, I definitely found a lot of information in that book. Is it a book that you would recommend? I know some people feel like some of it is not accurate.

Denise: Yeah, I would just caution you in using it to try to be discerning. And if there is something you read that maybe just doesn’t ring quite true, that you don’t feel quite right about, to maybe do a little research and that might just be asking Lynda about it. It is certainly an interesting book to read and in training I tell the tour guides that they shouldn’t read it until they’ve been here for at least a year. My concern is… we have them reading what we consider to be documentable sources which include Edgar Kaufmann jr.’s book and the book by Donald Hoffmann. The Donald Hoffmann book is so good and he seems to be such a careful careful historian… we tell them that those are books that they can take information from and they are documentable. My concern is if they read Fallingwater Rising, they’ll read the information but not remember what source it came from and it will make its way in their tours and it will be just a little bit… um… inaccurate. I mean there are just some things in his book that I know are inaccurate and the fact that there is something I know is inaccurate, when I read something else that I don’t know if it is true or not I have to ask myself the question well is it true or isn’t it true I don’t know. So… it was funny, I was looking through it today to find the bidet reference because I wanted to tell you exactly where it was and I was thinking to myself I think I should probably read Fallingwater Rising again, I think I’ll probably look at it differently than I did when it first came out and if there was something that I questioned then I could do some more research. Or at least whenever we talk about it, say well you know there is something that this happened or there is an anecdotal story that this happened… I can’t document it but this is possible… to try to couch it that way.

Amber: Okay, that’s kind of what I was thinking. Alright, great. Well thank you so much for being so informative and doing some background research even.
Denise: Well Amber you are so welcome. I am really excited that you have this as a project and I look forward to seeing you back here at Fallingwater.

Amber: Yes, I would like to come back soon. I will keep you updated.

Denise: Okay, that’s great, I appreciate that.

Amber: Thank you so much again. Have a great week.

Denise: Alright I’ll do that and I just wish you good luck with the rest of your project.
Interview with Amy Humbert, Fallingwater Education Programs Coordinator - 1/15/15

Amber: So I’m just going to start from the beginning. Will you just say your name for me?

Amy: Amy L. Humbert.

Amber: And how long have you been employed at Fallingwater?

Amy: I started in August of 1986 and I think I’m starting my 29th year.

Amber: And what is your current position title?

Amy: Um, I’m about to change it to Education Programs Coordinator.

Amber: Okay, and what other positions have you had at Fallingwater?

Amy: Oh, my… School Programs Coordinator, I’ve also been a Floor Supervisor, I have been a Tour Guide, and when I was a tour guide at one point we did not have a Visitor Services department so the Education Department, the Public Tour department, ran everything that Visitor Services also did so that means that I’ve worked at the information desk, I’ve worked selling tickets at the gate house. I’ve pretty much worked everywhere on site except Maintenance.

Amber: Okay and then in addition to working do you have any other connections? Like family members? Did you know any of the Kaufmanns?

Amy: Well, you probably know that my ex-husband worked here also, worked Maintenance. And my father worked for the Western Pennsylvania Conservancy and he was over at Bear Run but he really wasn’t stationed on the Fallingwater site. He worked at the Barn.

Amber: Okay, how familiar would you say you are with the maintenance and preservation work that has been done to the house throughout its duration or at least since you have been there?

Amy: Very familiar.

Amber: Okay, that’s what I thought. Are you familiar with the Secretary of the Interior’s Standards for the Treatment of Historic Properties?

Amy: Yes I am. I’ve read them.

Amber: And do you know which treatment Fallingwater proscribes to, whether it is Preservation, Restoration, Rehabilitation, or Reconstruction?

Amy: I think it depends mostly on what project we are working on. I think probably preservation mostly, I would say, but I think it depends on what we are working on
because when we did the repair of the building… when we straightened the cantilevers, that fit more into the category of repair… (inaudible) it was preservation but yeah…

Amber: To your knowledge is there a certain practice or manual that the Fallingwater employees follow when deciding what type of treatment to undertake with physical issues, fixing buildings on the property?

Amy: Well there are preservation standards for Fallingwater… everything we do with the house is supposed to go back to those. And there is a preservation manual. There is also a housekeeping manual. I know housekeeping sticks to their manual pretty well. I am honestly not sure about maintenance. You would actually know that better than me.

Amber: Okay, yeah. I’ll go ahead and move on to the more specifically bathroom related questions now. Do you know anything about the original design of the six bathrooms? The finished ones?

Amy: The only one that I know they made some changes to initially was the Master Bathroom. Other than that I think they weren’t changed much. But I know in the Master Bathroom Liliane did not want a pedestal sink, she wanted a vanity. And she wanted a shower and not a tub. She also had a bidet. But I don’t think there are any other changes in the bathrooms that I’ve read. Edgar Kaufmann had wanted them to explore having sinks built out of stone or granite or some material but that was going to be way too expensive.

Amber: Other than that it was pretty much just what Wright would have designed originally?

Amy: I believe so. Even from looking at some of the floor plans it looks like it is pretty much the same.

Amber: Okay, so how closely would you say that the bathrooms in their current states resemble their original configuration? Has anything changed since the original construction? Has anything moved?

Amy: Not that I know except for in the Guest House Bathroom we replaced the cork tile. But we didn’t change the configuration then either, no.

Amber: Okay, in regards to décor, like the stuff that is in them, would you say that that is how it would have been originally? Or is that more curatorial?

Amy: That, I would say, is more curatorial. The bathrooms have looked the same since I started… as far as which items are displayed. But when I have looked at photos from earlier books… like the (inaudible) book obviously there are other things in there. But then again some of those photos were staged so I don’t know how closely they resembled how the Kaufmanns originally displayed things. I just know they are the way they’ve looked since I’ve been there.
Amber: Okay, how would you compare the condition of the bathrooms from when they were either first completed or when you started in terms of the paint finish, cork condition, cracks in walls, etc…?

Amy: The Guest Bedroom Bathroom continues to deteriorate as far as the finish with the water leaks staining the tile. So that looks far worse than when I started. And the Guest House Bathroom looks pretty good at the moment. The others I don’t notice a whole lot of change.

Amber: Okay, alright. This is a multi-faceted question but basically what do you know has been done to the bathrooms through time in regards to certain materials? So for instance the stonework… do you know if any of it has been repointed, replaced, cleaned?

Amy: I can’t think of anything being done in any of them except the bathroom in the Guest House where they changed the tile… but that’s the only one.

Amber: And that would be the cork replaced?

Amy: Yes.

Amber: Okay, so the windows and the concrete, all of that is probably in the same kind of condition?

Amy: They may have repainted… and I don’t know about parged, that bathroom, the one that we are talking about with replacing the tile in the Guest House. I would say that probably happened but I don’t really recall them working much in any of the other bathrooms.

Amber: Okay. What about the fixtures?

Amy: As far as I know those are all of the original Kohler fixtures and haven’t been altered.

Amber: Alright. I think Albert said that most of the cabinetry has had some work done to it by either Thomas or Victoria, does that sound right?

Amy: Yeah, that wouldn’t surprise me. I would imagine it has.

Amber: Okay, do you know anything about any of the plumbing or the radiators?

Amy: No, I’m always asking plumbing questions to Roger because I don’t truly understand all the plumbing issues and I really know very little about the radiators.

Amber: Okay, and in terms of installation of any additional ventilation, is the Guest House Bathroom really the only place that that has been done?

Amy: Yes. Yes, as far as I know.
Amber: Okay, the last one in this part. Do you know anything about electrical work that has been done in any of the bathrooms?

Amy: No, I really couldn’t answer that for sure because I remember back in the ‘80s there was some rewiring that was done and I really don’t know how much of the building was rewired.

Amber: Okay, do you know whether or not the water is shut off to all of the bathrooms? I know in the Servants’ Quarters obviously the sink and toilet are on. Do you know if the shower and tub are still on?

Amy: Well, Roger told me that the water was shut off to the toilet… but I honestly don’t know if it is shut off to the sinks and the showers or not. Because I remember, like fifteen years ago, for the Twilight Tour, somebody turning the shower on in the Master Bathroom… so I know at that point it was still on.

Amber: Okay, interesting.

Amy: Um, yeah… that’s happened. But as for now, maintenance would know for sure.

Amber: Alright. Do you know anything about like the septic or water systems? Or sources?

Amy: Well both the Main House and Guest House each had septic tanks. I don’t believe they had (inaudible)… I just believe they were septic tanks. And yeah that’s been changed.

Amber: Okay.

Amy: Around 2000 I think. For a while we had a temporary fix where we had a tank on the hill that they would pump out and eventually the zero-discharge system was built.

Amber: Gotcha, alright. So this is more of an opinion question but would you say that maintenance and preservation work is treated any differently in say the bathrooms than in other spaces, say more primary spaces at Fallingwater… like the living room and the terraces? Would you say there is a hierarchy?

Amy: Yeah, there is a hierarchy. And I can give you a good example because the bathrooms are definitely not primary space. My first husband began a project in the Guest House Bathroom probably around ‘92 or ‘93… somewhere in the early ‘90s and then it was put on hold until whatever date we put the cork back and that’s only been in the last, I don’t know, 5 or 6 years… it’s not been that long.

Amber: Okay, wow, yeah. Long time.

Amy: Yeah, it was a long time.
Amber: Would you say that there has been a higher material turnover in the bathrooms… like replacement versus repair of like cork… versus other spaces?

Amy: I don’t think so. I wasn’t aware that we had changed out a lot of the cork in many of the other bathrooms except maybe a tile here or there.

Amber: Okay. Now more into the interpretation side of it. Do you know when the decision was made to chain the bathrooms off from visitor access?

Amy: No, I don’t. They were chained off when I started.

Amber: Do you know why they are maintained that way? Is that ever something you deal with?

Amy: Well what I tell people… and I’m really not sure where this came from because sometimes in interpretation we have facts that we realize aren’t facts… they are just stories we tell. But I’ve always said that we don’t let people walk in there because of the cork floors. Because if they were wearing heals it might dent them, damage them… it wouldn’t be a durable material to walk on. So that’s what I tell people.

Amber: Are they actively discussed on any of the tours or is it kind of just like an if there is time?

Amy: Let’s put it this way… they shouldn’t be. But I know guides who go into way too much minutia and guests get pretty interested sometimes about details of septic and things like that, which is fine… but other than that we just… what the guides should really be doing is pointing out where the bathroom is, maybe mentioning the cork and why… not really spending time interpreting them.

Amber: Okay, is that just to get more focused on the primary spaces? Keep it flowing?

Amy: Yeah, because we have such a limited amount of time inside the house we have to kind of keep the focus on the primary space. Plus if we are directing them over there I think that puts more stress on the door and the chain. Like in the Master Bathroom they are brushing against that door and scratching it.

Amber: Alright, gotcha. Last question. Do you know if there has been stuff stored in the bathrooms over time? Like in the cabinets or just out of site? Just stuff like cleaning supplies?

Amy: That I would have to take a guess on but I would bet there has. I don’t think anymore. I know over the years we’ve stored things in many of the cabinets that have now been taken out. So I wouldn’t be surprised.

Amber: But there is less now than there used to be?

Amy: Most definitely. A lot of that changed when Justin Gunther became Curator of Preservation and we stopped storing things in places we shouldn’t.
Amber: Gotcha. Well that’s the last question I have for you. Is there anything else you can think of that I might find helpful?

Amy: I don’t think so. Feel free to email me with something if you have any other questions, okay?

Amber: I will.

Amy: Well you have a great day and I’m so glad I could help you with this.

Amber: Thank you, you too. Thank you so much.
Interview Questionnaire submitted by Scott Perkins, Fallingwater Director of Preservation - 1/15/15.

General:

1. How long have you been employed at Fallingwater? Since May 2013

2. In addition to your employment, what other connections do you have to Fallingwater? (i.e.: family members as past employees, personally know the Kaufmanns, other experience with Frank Lloyd Wright buildings, etc.). I previously worked as curator of another FLW site (Price Tower) and have advised other FLW sites on operations, curatorial issues, and inventories (Samara, Graycliff, Dana-Thomas House). Author on FLW interiors and furniture for Price Tower and Guggenheim 50th anniversary publications. Lecture and present on variety of FLW topics. Board member of the Frank Lloyd Wright Building Conservancy since 2009 where I also serve as chair of their Public Sites committee.

3. How familiar are you with maintenance and preservation work that has been done to the house throughout time? (i.e.: painting, stonework, cleaning practices, major rehabilitations, etc.). Very much. There was a two-year gap in documentation of maintenance and preservation work due to staff turn-over. I am updating the records and preservation timeline as well as organizing photographic documentation of work completed.

4. Does Fallingwater follow the Secretary of the Interior’s Standards for the Treatment of Historic Properties? If so, does Fallingwater proscribe to the treatment of: Preservation, Restoration, Rehabilitation, or Reconstruction? Yes. Contracted preservation and architecture firms use it when making recommendations for our site. When I came on board I distributed printed copies to maintenance department for their reference. I am coordinating an on-site workshop on masonry and concrete for maintenance that will focus on standards and rules of the trade. Hoping to have this in 2015, but may be spring of 2016. We would proscribe to preservation and conservation for the main house and guest house, restoration and rehabilitation for the ancillary buildings.

Bathrooms:

1. Do you know any information regarding the original design of the 6 finished bathrooms at Fallingwater (Guest Bath, Main Bath, E.J. Sr. Bath, E.J. jr. Bath, Guest House Bath, Servants’ Quarters Bath)? For instance, were any of the fixtures or materials designed or selected by particular individuals? Specifications are not too revealing, as you know. No historic photographs that we know of. The rooms are interpreted based upon Edgar jr.’s recollections and taste.
When repairs or conservation work is needed, it is replaced with like materials (i.e. cork wall and floor treatment for the Guest House Bathroom restoration).

2. **To the best of your knowledge, how closely do the bathrooms in their current states resemble their original configuration? Has the overall layout of the spaces changed in any way?** All are in their original configuration as far as fixtures are concerned. Only modifications would have been to accommodate electrical and plumbing changes, security equipment, and staff use (shelving constructed in tub areas for staff and housekeeping use).

3. **To the best of your knowledge, how closely do the bathrooms in their current states resemble their original decor? What decisions drive the items that are displayed in them (towels, vases, etc.)?** If not original, very close to original. Display items vary in their authenticity (objects in Liliane’s bath are from the collection), artwork is rotated, textiles on stools are original or replications of originals, woodwork original. Again, subtle changes made to interior of cabinets to accommodate security, housekeeping, and storage needs.

4. **To the best of your knowledge, how do the physical conditions (paint finish, cork adhesion, cracked walls) of the bathrooms compare to when they were first completed (or just to years prior)?** All materials and finishes are original except the Guest House Bath, which has undergone some preservation work. Paint color and finishes were upgrades to PPG product in recent years. Cracks are historic and have been repaired over time. Masonry stains due to leaks are historic and repaired over time. Water marks on cork in Guest Bedroom of main house are historic and we feel leak has been addressed.

5. **To the best of your knowledge, what has been physically done to the bathrooms through time in regards to the following. Please include dates and persons involved with work if possible.**

   a. **Stonework (repointing, replacement, cleaning, etc.):** Repointing and cleaning as needed.

   b. **Cork (replacement, reattachment, cleaning, etc.):** Guest House bath was resurfaced. Guest Bedroom bath was treated by wood conservator on many occasions to infill or clean cork where leaks have caused staining.

   c. **Windows – steel + glass (replacement, repair, cleaning, painting, etc.):** Painted as needed. To date, the steel sashes of windows have only been to main rooms of the house. We are having work performed in fall 2015 and will then have all windows in house and guest house inspected for repair needs. Windows replaced as needed.
d. Concrete (patching, rebar/lath repair, painting, etc.): patching and painting as needed. No major rebar repair. Parts of lath wall in servants quarters bath were removed to address plumbing issues. Part of lath wall in Guest House Bath were removed for electrical and plumbing needs.

e. Fixtures (mirrors, sinks, tubs, shower heads and tracks, knobs, drains, outlets, etc. -replacement, repair/patching of enamel, special cleaning, etc.): All original and conserved as needed. Wood conservator worked on Guest Bedroom mirror in 2014.

f. Cabinetry (conservation work): Annually since late 1980s. Two weeks of repair and cleaning. Reports and photographs are on file in our archives.

g. Plumbing/radiators (remove surrounding materials to get access?): See 5d above. Plumbing in all museum bathrooms is turned off. Plumbing in servant quarters bath is still operational.

h. Installation of additional ventilation (i.e. in Guest House Bath): Mobile plug-in AC/Dehumidifier unit installed in Guest House bath in 2014. Oscillating fan placed at clerestory is historic and operational.

i. Electrical work: As needed.

6. To the best of your knowledge, is the water shut off to all of the bathroom fixtures except the toilet and sink in the Servant Quarters? If not, what is on and what is off? See 5g above.

7. How were the septic and water systems originally set up? How are they now? What is/was the water source? Historically, waste water was collected in tanks to the west of the house. These were dismantled in the late 1990s when the waste water treatment facility was completed. We handle waste water treatment on-site using a zero discharge system and in a dedicated building away from public view. Waste water is treated then recycled back to the site for use as flush water in the visitor center and barn. Drinking water and sink water (kitchen, café, etc.) is obtained from city sources.

8. To the best of your knowledge, is maintenance and preservation work treated any differently in the bathrooms versus other spaces at Fallingwater? No.

9. To the best of your knowledge, has there been a higher material turnover in the bathrooms versus other areas at Fallingwater? For example, has there been more replacement of materials (like cork or even fixtures) in the bathrooms than, say, of flagstone or lights in the living room? If so, do you think a higher turnover rate is indicative of the specific material longevity/durability or does it relate more to prioritizing preservation in certain
spaces? I am certain that all materials are original to the bathrooms except in instances listed above. Material turnover in the museum spaces is primarily in the collections items that were purchased as replacements for originals (rugs, pillows, kitchen chairs, etc.). Window glass was replaced entirely in late 1980s, and in the process of being replaced as needed with improved UV resistance since 2012.

10. **When was the decision made to chain bathrooms off from visitor access? Has this practice been followed since the house opened for tours in the 1960s?**

What were/are the reasons for this? This seems to have been done from the very start, and likely a move to prevent visitors from using the facilities (water turned off, could get messy).

11. **Are the bathrooms currently being discussed during any of the tour levels?**

If so, what information is conveyed to visitors? If not, what is the reason for omitting these spaces? They are on certain tours, most often for their materials and finishes (black walnut cabinetry, cork, or the flowers in Liliane’s window). The rooms are too small to take people through and some very fragile objects are protected by having chains in place.
Amber: Alright, just a few general questions first. How long have you been employed at Fallingwater?

Lynda: In my first life here I was employed between 1965 and about 1975. And then in my second life, after school, I came back as a consultant in ’85 and then in ’86 I became full-time.

Amber: What kind of a consultant?

Lynda: Curatorial.

Amber: Okay. Obviously your current position is the Director. Are these the only positions that you’ve held here?

Lynda: When I was first here I was Curator. That lasted about three months and then I became Curator and Site Administrator. And then in ’96 I was made Director.

Amber: Alright. In addition to employment did you have any other connections to Fallingwater? Did you know Edgar jr.?

Lynda: I only know Edgar through working here. My only other connection would have been… and this is how I got my job initially… was that I knew the Hagans of Kentuck Knob. Mr. Hagan was on the Board of the Conservancy and he told my mother that they were having trouble getting guides when the house was first opened. So that’s how… [inaudible].

Amber: Gotcha. And how familiar are you with maintenance and preservation work that has been done to the house throughout time?

Lynda: There is probably nobody that knows more on that.

Amber: Yeah that’s what I was thinking. And Fallingwater follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties. Which treatment out of: preservation, restoration, rehabilitation, and reconstruction does the house follow?

Lynda: I would say preservation whenever possible. But, for example, the roofs have been changed from the original… the built-up roof to a different kind of roof… So, other than that, everything else is preservation.

Amber: Alright. And, more specifically, my thesis is about looking at using Fallingwater’s bathrooms as a lens for secondary spaces in the preservation field… how they fare over time, how they were designed… That general idea. So, as far as you know, would you say that maintenance and preservation work is treated any differently in bathrooms versus other spaces or would you say that there is more of a prioritization of primary versus secondary?
Lynda: No. Well the bathrooms are not used, except for this one [Servants’ Quarters’ Bathroom]. So they don’t require as much care since there is no active impact on it… but most of the bathrooms, as you know, have the water turned off to them. Which happened only because we had leaks from the old plumbing. Plumbing has to be used regularly or it doesn’t work.

Amber: Yes of course. Would you say that there has been a higher material turnover in bathrooms versus other areas? Like cork replacement versus like flagstone replacement?

Lynda: No, because most of the bathrooms have the original cork in them. Except the Guest House Bathroom which has had big issues with deterioration over time. And that was replaced twice. You know, we’re not sure what’s going on in the Guest House. It’s built on grade… and we don’t think we have rising damp, but we may have something… something was keeping that from adhering to the walls. We think we’ve addressed it now, because it has not delaminated. The first time we replaced it it delaminated probably within a year. But we think it seems to be holding up pretty well now. So that’s the problematic one. We’ve got some cork replacement in the Guest Bathroom, down at the Main House, where the… again, monitors are problems… so that’s where those issues arise. But most of it is original. Cork is a very sturdy material. Well think about it… cork is used for the soles of shoes. And wine stoppers. It resists water, which is why it’s a wine stopper. But think about the impact of cork on a sole. So it holds up actually rather well.

Amber: Yeah. Alright, one question I haven’t been able to find in my research definitely, do you know when the bathrooms were chained off from visitor access?

Lynda: From the beginning.

Amber: 1964?

Lynda: Yes. I think we still have some original chains. I think they’re all original.

Amber: Oh really? Okay. I think the only other thing I really wanted to have you touch on was the kind of hodge-podge cork placement in the Servants’ Quarters’ Bathroom that we were talking about the other day.

Lynda: Yeah, okay, I hadn’t really thought about it… I’ve always been aware of it, always looked at it… I don’t know that I actually thought that until we started looking the other day and I thought, you know, it makes sense that they would probably not want to buy anymore cork so let’s just patch it together. I mean it’s just one of those things you realize and we were really close to losing that… I’ve often wondered, it doesn’t look like this anywhere else in the house. And as we were thinking about it, because I’d never really thought about that… you know what, I’ll bet you it’s just left over cork.

Amber: Yeah, because to the best of your knowledge it’s all original?

Lynda: It’s all original, yeah. I think you can tell that by taking it up can’t you?
Amber: Yes, and the different color variations throughout are consistent with the rest of
the house. It’s very interesting. I hadn’t thought about that either and I’ve seen that floor a
hundred times.

Lynda: Yeah, yeah. But it wasn’t until we were thinking about okay, what are we gonna
do here, that I thought we can’t change it…

Amber: Yeah, we traced all of the locations for putting it back.

Lynda: Great. I’m glad I was here because we would have come back with a new
bathroom and we would have had a different story. We would have lost the story.

Amber: Yeah. Because I had heard other opinions that that was replacement patching over
the years…

Lynda: I don’t think so. I mean it could be, but I don’t think so. Did you see any trace of
bigger squares under there?

Amber: Not under those, no.

Lynda: Yeah, because you would probably see some indication that a bigger square had
been there.

Amber: Yeah, because you can definitely see evidence of the bigger squares where they
still were.

Lynda: Right, right. So that’s my feeling about it. So you might want to mention that as
justification.

Amber: Yeah of course. Perfect. Well is there anything else you’d like to add?

Lynda: Nope, that’s it.

Amber: Great thank you.
APPENDIX C:

CONDITION ASSESSMENTS
Bathroom Condition Assessments

Guest Bathroom

Key for Condition Ratings
Good: No or few areas of deterioration or loss of historic fabric
Fair: Moderate deterioration or loss of historic fabric
Poor: Significant deterioration and/or loss of historic fabric

Concrete
Ceiling: Good
  Comments: Separation near shower curtain track.

Walls: Good
  Comments: Minimal staining below clerestory window.

Cork
Walls: Good to Poor
  Comments: North and West walls good while East and South have sever water damage including staining and delamination.

Floor: Fair
  Comments: Some misaligned pieces and delamination. More severe cracking and delamination in radiator opening. Curved corner pieces somewhat cracked along tub.

Windows
Glass: Good to Fair
  Comments: Southernmost pane cracked.

Steel: Fair
  Comments: Some corrosion of latches near ceiling.
**Bathroom Condition Assessments**

**Fixtures**
Mirror: Good  
Sink: Good  
Toilet: Good  
  *Comments:* Minor scuff marks.  
Shower: Good  
Bathtub: Good  
Glass shelving: Good  
  *Comments:* Mild tarnishing.

**Woodwork**
Mirror: Good  
Door Assembly: Good

Cabinet: Good
Concrete
Ceiling: Poor to Good
  Comments: Some separation from connections with cork on walls. Severe deterioration from water damage along junction with eastern wall. Staining and spalling present in this area.

Walls: Poor to Good
  Comments: Severe cracking along top of western wall behind wardrobe. Piece of parge coat missing under sink.

Cork
Walls: Good

Floor: Fair to Good
  Comments: Some water staining. Some delamination under sink. Water damage and cracked corner pieces in shower floor.

Windows
Glass: Good
Steel: Good
**Bathroom Condition Assessments**

**Fixtures**
Sink: Fair
  *Comments:* Under side of outer lip is chipped off in places. Additional chipping on bottom of sink basin.
Toilet: Good
Shower: Good
Mirror: Good

**Woodwork**
Door Assembly: Good

Wardrobe and shelving: Good
  *Comments:* Minor scratches

Dressing table: Good
### Bathroom Condition Assessments

#### Edgar Sr. Bathroom

**Key for Condition Ratings**
- **Good**: No or few areas of deterioration or loss of historic fabric
- **Fair**: Moderate deterioration or loss of historic fabric
- **Poor**: Significant deterioration and/or loss of historic fabric

#### Concrete
- **Ceiling**: Good
  - *Comments*: Evidence of previous repairs. Evidence of prior water entry or repair near top of western stone wall.
- **Walls**: Good
  - *Comments*: Damage near base of window in northern wall.

#### Cork
- **Walls**: Fair to Good
  - *Comments*: Minor separation from adjacent materials. Some delamination near window in eastern wall.
- **Floor**: Fair to Good
  - *Comments*: Wear and missing piece near window in northern wall.

#### Stone
- **Walls**: Good
  - *Comments*: Minor mortar joint cracking. Evidence of prior water entry or repair near ceiling.
**Bathroom Condition Assessments**

**Windows**
Glass: Good
Steel: Good
*Comments:* Evidence of water leaks where window meets ceiling. Modern sealant and minor corrosion of window latch.

**Fixtures**
Mirror: Good
*Comments:* Scratching near base of mirror glass.
Sink: Good
Toilet: Good
*Comments:* Minor chipping.
Shower: Good
Bathtub: Good

**Woodwork**
Mirror: Fair
Door Assembly: Good
*Comments:* Wear near base and lock.
Wardrobe: Good
Bathroom Condition Assessments

Key for Condition Ratings
Good: No or few areas of deterioration or loss of historic fabric
Fair: Moderate deterioration or loss of historic fabric
Poor: Significant deterioration and/or loss of historic fabric

Concrete
Ceiling: Fair to Good
   *Comments*: Some separation from adjacent walls and materials. Some flaking paint likely the result of excessive moisture.

Walls: Poor to Good
   *Comments*: Severe separation from floor near doorway.

Cork
Walls: Fair to Good
   *Comments*: Water damage present underneath window in eastern wall. Separation in places from ceiling. Some discoloration and cracking.

Floor: Fair
   *Comments*: Some delamination in radiator. Water damage evident in shower stall floor. Some separation from adjacent materials.

Stone
Walls: Fair
   *Comments*: Evidence of water leak near junction with ceiling.
Windows
Glass: Fair to Good
   Comments: Window in northern wall appears to have a film.

Steel: Good

Fixtures
Mirror: Fair
   Comments: Some chipping and film on glass.
Sink: Good
Toilet: Good
   Comments: Minor chipping.
Shower: Good

Woodwork
Mirror: Good

Door Assembly: Good
Wardrobe: Good
Bathroom Condition Assessments

Guest House Bathroom

Key for Condition Ratings
Good: No or few areas of deterioration or loss of historic fabric
Fair: Moderate deterioration or loss of historic fabric
Poor: Significant deterioration and/or loss of historic fabric

Concrete
Ceiling: Good
   Comments: Some paint peeling in northwestern corner.

Walls: Good
   Comments: Moisture evident along southern wall.

Cork
Walls: Good
   Comments: Some joint separation. Some moisture damage near southern window.

Floor: Good

Windows
Glass: Fair to Good
   Comments: Cloudy appearance. Vent near bottom of pane is corroding.

Steel: Good
   Comments: Poor connections to adjacent materials near top and bottom of window.
**Bathroom Condition Assessments**

**Fixtures**
- Mirror: Good
  
  *Comments:* Film on glass.
- Sink: Good
  
  *Comments:* Some tarnishing.
- Toilet: Good
  
  *Comments:* Some chips and scratches.
- Shower: Good
  
  *Comments:* Shower track tarnishing.
- Bathtub: Good (where visible)

**Woodwork**
- Mirror: Good

- Door Assembly: Good

- Cabinet: Good

- Shelf: Good
**Bathroom Condition Assessments**

**Servants’ Quarters Bathroom**

**Key for Condition Ratings**
- Good: No or few areas of deterioration or loss of historic fabric
- Fair: Moderate deterioration or loss of historic fabric
- Poor: Significant deterioration and/or loss of historic fabric

**Concrete**
- Ceiling: Poor
  - Comments: Spalling and water staining from major leak. Peeling paint and mold in northwestern corner.
- Walls: Fair
  - Comments: Some cracking and separation near ceiling.

**Cork**
- Walls: Poor to Good
  - Comments: Water damage and staining under window. Portion of wall missing behind toilet. Major deterioration at corner of stone wall.
- Floor: Poor
  - Comments: Missing pieces near toilet. Delamination throughout. Water damage and cracking along corners.

**Stone**
- Wall: Poor
  - Comments: Staining and mold near a major leak at the ceiling. Water staining and mold near window. Poor connection to cork near window.
Bathroom Condition Assessments  Servants’ Quarters Bathroom continued

**Windows**
Glass: Good
Steel: Good  
*Comments:* Minor corrosion near latch.

**Fixtures**
Mirror: Good  
Sink: Good  
*Comments:* Legs tarnished.
Toilet: Fair  
*Comments:* Minor chipping
Shower: Poor  
*Comments:* Shower head severely tarnished.
Bathtub: Good

**Woodwork**
Mirror: Good  
Door Assembly: Fair  
*Comments:* Wear near bottom of door.
Cabinet: Fair  
*Comments:* Some water staining from a ceiling leak.
APPENDIX D:

HABS ARCHITECTURAL DRAWINGS

(See supplemental file)
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