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REUSE, RECYCLING, AND REINTRODUCTION OF HISTORY WITH CONTEMPORARY EYES THROUGH ADAPTIVE REUSE

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REUSE, RECYCLING, AND REINTRODUCTION OF HISTORY WITH CONTEMPORARY
EYES THROUGH ADAPTIVE REUSE

By

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A THESIS

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REUSE, RECYCLING, AND REINTRODUCTION OF HISTORY WITH
CONTEMPORARY EYES THROUGH ADAPTIVE REUSE

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The idea of adapting old buildings for emerging purposes has been a regular strategy to sustain architectural resources since the medieval period or even earlier. However, the concept of adaptive reuse has only been gaining prevalence since the nineteenth-century when there was an increase in awareness of historic preservation. At this point, instead of sustaining architectural resources in both financial and functional terms, adaptive reuse was re-introduced and reapplied as one of the philosophical treatments of historic preservation.

As adaptive reuse is becoming a mature philosophical treatment of historic preservation, a great deal of critical thought and professional theory is required to contemplate the capacity of adaptive reuse. A critical issue was found in the existing practices of adaptive reuse: the ways architects and designers go about adaptive reuse today means that they are doomed to merely reuse a dead building as a dead building again without showing reverence to the means of historic preservation. Hence, this work sets out to contemplate historic preservation critically and holistically. This work examines how adaptive reuse is able to work to its fullest potential in response to historic preservation, as well as to help the public to learn about history by establishing an “internal connection and communication” between the public and the reused buildings per se.

The first section chapters of this work include a theoretical and critical discussion about historic preservation through a literature review, which provides an understanding of the importance of history and historic buildings, as well as the development of historic preservation. The second section chapters discuss an in-depth understanding of adaptive reuse by learning the roles and benefits of adaptive reuse in different perspectives, followed by a few architectural cases. The last section chapters of this work examine the roles and benefits of adaptive reuse through survey research and data analysis. Considering the maturity and expertise in revolving architecture around history and relics through adaptive reuse, the discussion of this work raises the question of what the subsequent architectural style will be in the near future.

TABLE OF CONTENTS

CHAPTER ONE: STATEMENT OF INTENT.....	1
1.1 PROBLEM OF STATEMENT.....	1
1.2 PURPOSE OF THIS STUDY.....	4
1.3 SIGNIFICANCE OF THIS STUDY.....	6
CHAPTER TWO: THE VALUES OF HISTORY & HISTORIC BUILDINGS.....	8
2.1 HISTORY: THE TALE-TELLER AND PREDICTOR.....	8
2.1.1 Importance of Historic Buildings.....	8
2.1.2 History Represented in Historic Buildings.....	10
2.1.3 The Relationship between History and Historic Buildings.....	13
2.2 HISTORICAL CONSCIOUSNESS.....	15
2.3 DEVELOPMENT AND GROWTH OF HISTORIC PRESERVATION IN THE UNITED STATES.....	21
2.4 PHILOSOPHICAL TREATMENTS OF HISTORIC PRESERVATION.....	27
2.4.1 Restoration.....	28
2.4.2 Conservation.....	29
2.4.3 Reconstruction.....	30
2.4.4 Rehabilitation/Adaptive Reuse.....	32
2.5 DEFINING HISTORIC BUILDINGS.....	33
CHAPTER THREE: ROLES AND BENEFITS OF ADAPTIVE REUSE IN DIFFERENT PERSPECTIVES.....	36
3.1 ARCHITECTURAL ROLES AND BENEFITS.....	39
3.2 CULTURAL ROLES AND BENEFITS.....	42
3.3 HISTORICAL ROLES AND BENEFITS.....	44
3.4 ENVIRONMENTAL ROLES AND BENEFITS.....	46
3.5 ECONOMIC ROLES AND BENEFITS.....	47
3.6 SOCIETAL ROLES AND BENEFITS.....	49
CHAPTER FOUR: TYPOLOGICAL GROUPINGS AND STRATEGIES OF ADAPTIVE REUSE.....	52
4.1 TYPOLOGICAL GROUPINGS OF BUILDING.....	52
4.2 TYPOLOGICAL DESIGN STRATEGIES OF ADAPTIVE REUSE.....	54
4.2.1 Insertion.....	57
4.2.2 Parasite.....	58
4.2.3 Wrap.....	59
4.3.4 Juxtaposition.....	60
4.3.5 Weaving.....	61
CHAPTER FIVE: TYPES OF ADAPTIVE REUSE.....	64
5.1 REUSE FOR COMMERCIAL PURPOSES.....	64
5.2 REUSE FOR COMMERCIAL AND EDUCATIONAL/MEMORIAL PURPOSES.....	64
5.3 REUSE FOR EDUCATIONAL/MEMORIAL PURPOSES.....	65
CHAPTER SIX: THE ADAPTIVE REUSE PROCESS: SITE AND DESIGN ANALYSIS.....	67
6.1 REUSE FOR COMMERCIAL PURPOSES.....	67
6.1.1 From the former Ames Family Agricultural Company (1889-1950s) to the Ames Hotel (2009-present).....	67
6.1.2 From the former Gasometers of Vienna (1800-1986) to the Historical City Center (2000-present).....	72
6.2 REUSE FOR COMMERCIAL AND EDUCATIONAL/MEMORIAL PURPOSES.....	78

6.2.1 From the former Charles Street Jail (1851-1990) to the Liberty Hotel (2007-present).....	78
6.2.2 From the former Washburn A Mill (1874-1965) to the Mill City Museum (2003-present).....	85
6.3 REUSE FOR EDUCATIONAL/MEMORIAL PURPOSES.....	95
6.3.1 From the former "Elevated Freight-Railway" (1934-1980) to the High Line (first phase from 2009-present; second phase from 2011-present; third phase from 2014-present).....	95
6.3.2 From the former Thyssen Hochofenwerk Meiderich (1901-1985) to Landschaftspark Duirburg, Nord (1991-present).....	106
CHAPTER SEVEN: EXPLANATION OF SURVEY RESEARCH	
METHODOLOGIES.....	114
7.1 RESEARCH QUESTION AND OBJECTIVES.....	114
7.2 DATA AND METHODS: PARTICIPANT POPULATION, SURVEY MODE DESIGN, METHODS OF RECRUITING PARTICIPANTS.....	115
7.3 GENERAL QUESTIONS OF QUESTIONNAIRE.....	117
CHAPTER EIGHT: SURVEY ANALYSIS AND DISCUSSION.....	118
8.1 DATA ANALYSIS AND FINDINGS.....	118
8.1.1 Mill City Museum, Minneapolis, Minnesota.....	119
8.1.2 The High Line, New York, New York.....	124
8.2 COMPARING THE FINDINGS OF ADAPTIVE REUSE ACROSS DIFFERENT TYPES.....	128
CONCLUSION.....	133
ILLUSTRATION	
TABLES	
APPENDICES.....	202
APPENDIX A: SURVEY RESULT RESPONSE 1.....	202
APPENDIX B: SURVEY RESULT RESPONSE 2.....	206
APPENDIX C: ON THE LINE VISITOR TRACKING SURVEY.....	210
REFERENCE LIST.....	281

LIST OF ILLUSTRATIONS

FIGURE

1. Exterior of Hagia Sophia, Istanbul, Turkey.....	135
2. Reconstruction drawing of interior showing shade awning and gladiators fighting wild beasts, Flavian amphitheater, Colosseum, Rome, Italy.....	135
3. View of the Great Hamam just before the restoration and adaptive reuse.....	136
4. View of the Great Hamam after the restoration and adaptive reuse.....	136
5. The Great Hammam was reused as a multifunctional space.....	137
6. Aerial view of New York City viewed from Empire State Building.....	137
7. Aerial view of London, London, United Kingdom.....	138
8. Soldiers of Vietnam War aiding wounded comrades.....	138
9. Aerial view of Vietnam Veterans Memorial designed by Maya Lin.....	139
10. The names of the killed or missing armies were inscribed on this black granite wall, Vietnam Veterans Memorial.....	139
11. Domestication of animals as a mode of transportation.....	140
12. Locomotive 710 is one of the first served passenger steam trains in the 1920s.....	140
13. Cover of a 1959 brochure, Robert Moses proposed three cross-Manhattan expressways to solve traffic flow.....	141
14. General view of Piazza Anfiteatro looking west.....	141
15. Aerial view of Queensbridge. New York City housing projects.....	142
16. Execution of King Louis XVI in the Place de la Revolution.....	142
17. <i>Angelus Novus</i> painted by Paul Klee in 1920.....	143
18. Independence Hall, Chestnut Street façade.....	144
19. The Declaration of Independence.....	144
20. The world's first national park that covers over two million acres of public land in three different states.....	145
21. An overview of Franeuil Hall with a glass retail pavilion left of Franeuil Hall.....	145
22. View from the Street of Frank Lloyd Wright home and studio.....	146
23. Frank Lloyd Wright Home and Studio, First Floor Plan (left) and Second Floor Plan (right) in 1889.....	146
24. Frank Lloyd Wright Home and Studio, First Floor Plan (left) and Second Floor Plan (right) in 1895.....	147
25. Frank Lloyd Wright Home and Studio, First Floor Plan (left) and Second Floor Plan (right) in 1898.....	147
26. Aerial view showing inner circle of megaliths and horseshoe formation of megalithic trilithons, Stonehenge.....	148
27. The Mound of Vendome by David Gissen.....	148
28. The Old Baroque building of Jewish Museum Berlin that first served as the regal Court of Justice.....	149
29. The New York University Department of Philosophy is adapted from the six-story nineteenth-century warehouse.....	149
30. Six types of building form grouped that influenced by the political purpose the buildings serve.....	150
31. Parthenon, Acropolis, Greece, built c. 447-438 BC.....	150
32. Great Pyramids of Giza.....	151
33. Newly restored 5 th Avenue exterior of St. Patrick's Cathedral.....	151
34. Overall view of Trinity Church in Boston.....	152
35. A new staircase with perforated metal railing is inserted to the former six-story	

nineteenth-century warehouse, NYU Department of Philosophy.....	152
36. Tate Modern Gallery designed by Herzog & de Meuron.....	153
37. The light beam glass structure on top of the tower, Tate Modern Gallery.....	153
38. The new roof designed by Bernard Tschumi wraps around and protects the historic building.....	154
39. The new zig-zag configuration designed by Daniel Libeskind is contrasting with the former Old Baroque building.....	155
40. The underground vertical staircase and horizontal corridor that connect the new addition to the old Baroque building.....	155
41. Southwest façade after intervention by David Chipperfield, Neues Museum.....	156
42. The ruin of northeast façade after World War II, Neues Museum.....	156
43. The destroyed staircase hall before rebuilding, Neues Museum.....	157
44. The courtyard after intervention by David Chipperfield, Neues Museum.....	158
45. The Ames Building in 1893.....	159
46. The Ames Building, the semi-circular arches with intricate stone carvings on top of the openings.....	159
47. The detailed carved stone on the exterior of the Ames Building.....	160
48. The modern design of the lobby hall, The Ames Hotel.....	160
49. The modern design of the apartment bedroom suite, The Ames Hotel.....	161
50. The ambience created by the metal chandelier at the lobby hall, The Ames Hotel...	161
51. The restored fireplace and Romanesque arches at the Apartment Bedroom, The Ames Hotel.....	162
52. The “pepper’s ghost” at The Ames Hotel.....	162
53. The magic lantern trick “pepper’s ghost”.....	163
54. Historic photographs of the four Gasometers.....	163
55. Section and Plan of Gasometers, Gasometer A by Nouvel, Gasometer B by Coop Himmelblau, Gasometer C by Manfred Wehdorn, Gasometer D by Wilhelm Holzbauer.....	164
56. Plan of the extension (shield) by Coop Himmelblau.....	164
57. Section of the extension (shield) by Coop Himmelblau.....	164
58. Shield Shape Tower (Unit B), Gasometer B by Coop Himmelblau.....	165
59. East Elevation of the Shield, Gasometer B by Coop Himmelblau.....	166
60. North Elevation of the Shield, Gasometer B by Coop Himmelblau.....	166
61. Exterior of Charles Street Jail Complex in 1851.....	167
62. Interior of Charles Street Jail Complex in 1851.....	167
63. Ground Floor Plan of Charles Street Jail Complex in 1851.....	168
64. South Elevation of Charles Street Jail Complex in 1851.....	168
65. A cupola was included in Gridley James Fox Bryant’s initial draft.....	169
66. The cupola in Gridley James Fox Bryant was taken down in 1949.....	170
67. The cupola is restored by Ann Beha Architects to show reverence to Gridley James Fox Bryant’s initial creative vision.....	170
68. The former jail’s central atrium has been restored and converted into the current reception lobby of the Liberty Hotel.....	171
69. The former jail’s central atrium of Charles Street Jail.....	171
70. The Liberty Historic Center converted from the former corridor.....	172
71. The corridor to each individual cells in Charles Street Jail Complex.....	172
72. The jail’s former exercise yard, Charles Street Jail Complex.....	173
73. The jail’s former exercise yard is now a private landscaped courtyard.....	173
74. The elevation shows the new addition to the former Charles Street Jail as the guest rooms of the Liberty Hotel.....	174
75. The floor plan shows the new addition to the former Charles Street Jail as the guest	

rooms of the Liberty Hotel.....	174
76. The guest room of The Liberty Hotel overlooking the cityscape of Boston.....	175
77. The former Washburn A Mill in operation.....	175
78. 1950 to 1956 Lock and dam construction.....	175
79. Washburn Crosby mills and railroad yard.....	176
80. Explosion at the Washburn A Mill in 1878.....	176
81. Washburn A Mill in a 1991 fire.....	177
82. The remaining grain silos and “Gold Medal Flour” signs.....	177
83. The foundation pads for the two original water powered turbines at the ruin Courtyard.....	178
84. The mill was a ruined shell prior to stabilization and reuse after the fire.....	178
85. Axonometric view of the Mill City Museum showcases the incorporation between the new and old.....	179
86. The eight-story glass façade by Meyer viewing at the ruin courtyard, Mill City Museum.....	180
87. The new façade shows life-size graphics of machinery from an 1898 section Drawing, Mill City Museum.....	180
88. Section drawing showing interior layout planning, Mill City Museum.....	181
89. The lobby exposes different layers of the history, Mill City Museum.....	181
90. The cross-section wooden model of the former mill, Mill City Museum.....	182
91. The invoices for order purchase when the mill was in operation, Mill City Museum.....	182
92. The Flour Tower (an interactive exhibit ride in an elevator) tells the milling story, Mill City Museum.....	183
93. The forth floor riverfront loft borrows a graffiti wall from the mill as a focal point in the living area, Mill City Museum.....	183
94. The open loft space offers a better visual of the round concrete columns borrowed from the mill, Mill City Museum.....	184
95. The abandoned High Line and ready to be torn down in 1980s.....	185
96. The High Line is revitalized in 2009 as a public park.....	185
97. The street-level freight trains caused so many accidents that the area became known as Death Avenue.....	186
98. The West Side Cowboys at the West Side of Manhattan.....	186
99. An elevated freight viaduct was built from Thirty-fifth Street to the St. Johns Park at Spring Street.....	187
100. View of the 1.45 mile High Line snakes through the Meatpacking District and Chelsea shortly after it was built.....	188
101. The former High Line that sidle up to some old buildings and slice through some other buildings to bring food to the city.....	188
102. Grasses, wildflowers, and shrubs took root and slowly took over the abandoned High Line in 1980s.....	189
103. The seasonal changes at the High Line in 2001.....	190
104. The High Line was occupied by the self-seeded weeds and plants in 2000.....	190
105. The irregular manner of the paving systems at the High Line.....	191
106. The tapered edges of the concrete planks at the High Line.....	191
107. The installation of paving systems at the High Line.....	192
108. View of planting in the beds at the High Line.....	192
109. Many of the High Line’s original railroad tracks were reinstalled into the new landscape.....	193
110. The existing railroad tracks blend in together with the concrete planks, The High Line.....	193

111. The sunning area at 16 th Street with wooden chaise lounges at the High Line.....	194
112. An overlooking with a large glass providing a view of 10 th Avenue at the High Line.....	194
113. The grassland at south of 19 th Street, The High Line.....	195
114. IAC Building by Frank Gehry viewed from the High Line.....	195
115. The Metal Shutter House by Shigeru Ban and Jean Nouvel's apartment block 100 11 th Avenue viewing from the High Line.....	196
116. The Whitney Museum of American Art by Renzo Piano viewing from the High Line.....	196
117. Landschaftspark Duisburg-Nord, Duisburg, Germany.....	197
118. First blast furnace cast house, Thyssen Hochofenwerk Meiderich, Duisburg, Germany, 1903.....	197
119. Second blast furnace wind house, Thyssen Hochofenwerk Meiderich, Duisburg, Germany, 1912.....	198
120. Fifth blast furnace bunker and dock, Thyssen Hochofenwerk Meiderich, Duisburg, Germany, 1912.....	199
121. Pig casting machine, Thyssen Hochofenwerk Meiderich, Duisburg, Germany, 1912.....	199
122. Metal Slide at Landschaftspark Duisburg-Nord.....	200
123. Rock-climbing center at the play point at Landschaftspark Duisburg-Nord.....	200
124. Railway and bike paths at Landschaftspark Duisburg-Nord.....	201

LIST OF TABLES

1. Cost per square foot for renovation reported.....	201
2. Cost per square foot for new construction reported.....	201

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CHAPTER ONE: STATEMENT OF INTENT

1.1 Problem of Statement

Throughout history, people adapted old buildings for emerging purposes as a strategy to sustain their resources in architectural design and allow urban growth in both financial and functional terms. For instance, constructed between 532 and 537, first as a church, the Byzantine Hagia Sophia (fig. 1) was transformed into the imperial mosque of Ottoman Istanbul in 1453 before it turned into a museum, which it is now.¹ Another salient example is the Colosseum in Rome, Italy. The Colosseum was constructed as an amphitheater in the Ancient Rome (fig. 2). It subsequently underwent radical changes of use – church, cemetery, housing, etc – in the medieval period.²

Although the reuse of old buildings for new purposes can be dated to as early as during the medieval period, the concept of adaptive reuse has only been gaining its popularity with the accelerating pace of historic preservation concentration in the nineteenth-century. In other words, when a great deal of effort was put into historic preservation in the nineteenth-century, adaptive reuse as a dearly held strategy was re-introduced and reapplied as one of the historic preservation philosophies, in addition to financial and functional terms. This tendency is simply because adaptive reuse involves the efforts of working with existing buildings: looking for abandoned existing buildings, repurposing new and contemporary functions to the abandoned existing buildings, renovating the abandoned existing buildings, and reusing the abandoned existing buildings with brand new functions and identities in contemporary society. Thus,

¹ Robert Mark and A. S. Cakmak, “The Life of an Imperial Monument: Hagia Sophia After Byzantium,” in *Hagia Sophia from the Age of Justinian to the Present* (Cambridge:

² Andrew Szegedy-Maszak, “Travel: A Perfect Ruin,” *Archaeology*, vol. 43, no. 1 (January/February 1990): 74-79.

adaptive reuse does not only help protect “pieces of our architectural heritage [historic preservation], but also make them viable – and vital – parts of our urban fabric, and give them an entirely new *raison d’être* [functional and financial].”³

With this level of maturity in its development, adaptive reuse necessitates critical thoughts, criticisms, and professional theory in order to fully comprehend its capacities for service in historic preservation. Hence, contemplating how to go about adaptive reuse for historic preservation sake has been welcoming different forms of critical and theoretical thoughts: the authenticity of preserving historic features, the universality of preservation values, the criteria for preservation, etc.⁴ While most of these thoughts are pondering about what affects the appearance of existing historic buildings, the lack of concerning users’ experience with the buildings becomes apparent – the internal connection and communication between the users and historic buildings per se is lost.

The lack of internal connection and communication can be demonstrated by, for example, the Great Hamam or the Turkish bath in Pristina (fig. 3). One of the first buildings built in the city cores in the second half of fifteenth-century, during the Ottoman Empire, it was used by the public as a bath for many generations before it was forsaken in the 1960s. Today, the local government, based on the existing state and survey analyses of the site, has decided to turn the building into a multifunctional space with cultural character, including open spaces for temporary exhibitions, workshops,

³ Kristen Richards, “History as,” *Oculus/The New York Chapter of the American Institute of Architects*, vol. 65, issue 1 (2003): 23.

⁴ Robert Garland Thomson, “Taking Steps Toward a New Dialogue: An Argument for an Enhanced Critical Discourse in Historic Preservation,” *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* vol. 1, no. 1 (Spring 2004): 11-15.

conferences, and performance halls (fig. 4 and 5).⁵ This example is invoked for this discussion because of its lack of connection and communication of the contemporary functions with its past. In other words, the contemporary functions that the building performs today do not inform the public about the history of the building itself. According to Albert Heta, one of the famous artists whose work is often rethinking of existing objects, this approach on the embarkation of historic buildings makes no difference with the act of total colonization. Heta affirms, “this already dead building is being restored and made dead again, because it is being isolated from the people and not allowed to communicate with the people where it is located.”⁶ The notion about “it [the building] is being isolated from the people and not allowed to communicate” as affirmed by Heta is akin to the lack of internal connection and communication referred in this work.

This kind of internal connection and communication refers to as the experience of how the remaining and surviving relics of historic buildings are being meticulously represented or presented by the architects and designers to the public users, helping the public users recognize, learn, and appreciate history better. The idea of establishing internal connection and communication is crucial in considering adaptive reuse in conjunction with historic preservation. Without the internal connection and communication, adaptive reuse performs no difference with what it used to perform since the medieval period, which is solely for financial and functional terms. In other words,

⁵ Nol Binakaj, “The Great Hammam in Pristina: Conservation, Restoration and Re-Functionalizing Project” (paper presented at the annual meeting for the Conservation and Management of Historic Buildings, 2008).

⁶ “Preservation, Contemporary Art, and Architecture,” in *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism*, vol. 4, no. 2 (Winter 2007): 74.

without the establishment of internal connection and communication, adaptive reuse is paying little to no respect to historic preservation and thus not working to its fullest potential for service in historic preservation.

1.2 Purpose of this Study

The aims in this work are thus two-fold. First, this work sets out to examine a number of representative works that endeavor to establish internal connection and communication when the architects and designers go about adaptive reuse projects. Second, through the establishment of internal connection and communication, this work seeks to study how adaptive reuse works to its fullest potential and helps the public users learn about history better through values of different perspectives: architectural, cultural, historical, environmental, economical, and societal. This work consists of three parts: theoretical and critical discussion about historic preservation through literature review; in-depth understanding about adaptive reuse through case studies; and examining values of adaptive reuse through survey research and data analysis.

With the theoretical and critical discussion, the first part of this work begins with understanding the values of history and historic buildings, knowing why we need them and how they benefit us in contemporary society. This part also covers the concept of “historical consciousness” to better understand the emergence of historical awareness, which leads to historic preservation. The study of historical consciousness helps yield additional findings on making sense of the shift of adaptive reuse before and after the late-twentieth century. It is also important to address ways of defining old and historic buildings, as neither all history nor historic buildings are good collective memories that

are worthy to preserve. In addition, this part explains how adaptive reuse protects history and historic buildings in the light of historic preservation.

With in-depth understanding about adaptive reuse, the second part of this work includes how the roles of “internal connection and communication” can be infused into adaptive reuse, making influences in different perspectives: architectural, cultural, historical, environmental, economical, and societal. Additionally, this part includes different typologies and design strategies of adaptive reuse, including insertions, parasites, wraps, juxtapositions, and weaving. The following section will categorize adaptive reuse projects based on functional and ethical approach, such as reuse as commercial purpose, reuse as commercial and educational or memorial purpose, and reuse as educational or memorial purpose. Each type is analyzed with two case studies, one of which is located in the United States and the other one in an European country like Austria and Germany. The analysis of case studies helps examine the design intention of the architects and designers, as well as, whether or not, their effort in establishing internal connection and communication between the public users and the adaptive reuse buildings.

In order to examine values of adaptive reuse, the third part of this work takes a methodological shift. It explains the process of setting up and conducting survey research at specific case studies (i.e. Mill City Museum in Minneapolis, Minnesota) as discussed in the second part of this work. This survey research yields new findings by analyzing the results obtained from the survey research, examining the fullest potential of adaptive reuse projects based on their categories. This study concludes with another research question, which is yet to be addressed in the future.

1.3 Significance of this Study

The purpose of this study is to offer a platform for the architects, preservationists, urban planners, and individuals keen on historic properties to realize and rethink their roles in making a good adaptive reuse. This thesis proposes that good adaptive reuse does not only aim to keep historic features intact, but also implements internal connection and communication, allowing the historic buildings themselves to tell their own history to the public users. Wilhelm Friedrich Hegel (1770 – 1831), a German philosopher, says in *The Philosophy of History* “In our language the term *History* unites the objective with the subjective side, and denotes quite as much the *historia rerum gestarum*, as the *res gestae* themselves; on the other hand it comprehends not less what has *happened*, than the *narration* of what has happened.”⁷ Thus, as an act to protect history, the word “historic preservation” is critically contemplated in this work. In the terminology of “preservation,” it is defined as a methodology to protect, retain, and have minimal impact on the existing historic significance of the buildings, including their forms, integrity, and materials.⁸ To consider historic preservation in conjunction with the desires of helping public users to better learn history, adaptive reuse should not merely protect the historic features of the buildings physically, but also be able to create and internal connection and communication between the public users and the historic buildings. In other words, the components and considerations in adaptive reuse projects should be designed in ways that

⁷ Georg Wilhelm Friedrich Hegel, John Sibree, *The Philosophy of History* (Kitchener, Ont: Batoche, 2001), 76.

⁸ “Preservation Terminology: Preservation,” Google Secretary’s Standards: Archaeology and Historic Preservation, accessed September 1, 2014, http://www.nps.gov/history/local-law/arch_stnds_10.htm.

refer back to the original purpose of the building, directly or indirectly. This helps to acknowledge the public users about how the building in the past forged a living culture in the contemporary society, as how it contributes and forms the culture of future.

CHAPTER TWO: THE VALUES OF HISTORY & HISTORIC BUILDINGS

2.1 History: The Tale-teller and Predictor

This section explains the reasons why historic buildings are dearly held as our roots rather than stumbling blocks to move forward in contemporary societies. Knowing the values of historic buildings introduces us to the hidden treasure – history – of not only the historic buildings, but also the context of when the buildings were built. This also explains why history is important to the contemporary societies and what we can do with history for future use.

2.1.1 Importance of Historic Buildings

Living in contemporary societies, which are flooded with technological advancement, makes historic buildings appear to be valuable today. After the urban renewal practice by the Modernist movement, many historic properties were demolished to build infrastructures like highways and bridges for urban development. This tyrannical action in demolishing what the ancestors built prompted to the decrease of the number of historic buildings. Thus, historic buildings apparently became an important and valuable asset that deserves our efforts in saving our historic buildings.

One of the reasons that we need to protect the historic buildings stems simply from their distinctive architectural styles, features, construction methods and materials, and durability. All of these components are keys to help reveal the composition of thoughts and sensibilities of the people who built the buildings based on their limitations and context. Thus, historic buildings are the best archives for the historians to study about the past and even discover the unknown history. In *Thinking about Architecture*, Colin

Davies, a professor of architectural theory at London Metropolitan University, illustrates the significant relationship between architecture and history, as well as why historic buildings are important. Davies elucidates buildings [historic buildings] are the “primary sources” for the investigation of the past owing to their monumental size, complexity, and durability. By spending time exploring the historic buildings, one is able to feel in touch, almost literally, making an internal connection with the builders of the buildings, as well as creating empathy – standing at the original people’s point of view to experience their preferences, sensibilities, and view of the world.⁹

Other than standing as “primary sources,” the reason that we need and strive to save our historic buildings is simply because they are part of us and our daily lives – we, or our ancestors, have lived with it, creating what we possess today based on what we and our ancestors had. We were born and raised with them, having them as the settings of our daily routines. The physical presences of these historic buildings provide us with a sense of belonging and remind us that they are like part of our family, which grow old together, that we should not have torn them down. They are infused with the soul of history that allows us to recognize who we are, how we developed and became the nature of today. Even if we were to replace them with what is appropriate for today, we should do so only with careful thoughts and thorough considerations, ideally with professional theory, inasmuch as how the universe creates the nature and us.

Another reason that historic buildings are important to us is unavoidable from the age that we live in today – the age of globalization and universality – which is manipulated with overwhelming technological abilities. This tendency tyrannically leads

⁹ Colin Davies, “History,” in *Thinking about Architecture: An Introduction to Architectural Theory* (London: Laurence King, 2011), 125.

us to an era of cultural homogeneity, in which we are mostly living in cities with skyscrapers. Without taking a careful, further examination, the foreigners or sometimes even the locals cannot differentiate between standing at a spot in New York City (fig. 6) or London (fig. 7). Being not able to identify the environment that we live in, especially for the locals, is akin to not being able to identify the root of one's nation – we do not know who we are, where we came from, and what makes us different from others. Only through the historic buildings or districts, which are shaped distinctively based on the history and culture of each nation, are we able to maintain the difference, as well as personal identity, among the diversity of our nations.¹⁰

2.1.2 History Represented in Historic Buildings

Knowing that preserving historic buildings are to provide us with a closer contact with the past and to protect the history of each nations leads to the question of why learning about history is important. This question of why we need to learn about history requires contemplation, as history is highly associated with us human unwittingly since we are born. Without us having a chance to opt out, we are to take history classes during primary and secondary education since it is a mandatory subject. But what are we to obtain from history – in particular, something happened in the past – for contemporary or even future use?

“History” has many meanings, but it can be conducted as the study of written story, which is arranged as a chronological record, documenting significant or public

¹⁰ Robert E. Stipe, “Prologue: Why Preserve,” in *A Richer Heritage: Historic Preservation in the Twenty-First Century* (Chapel Hill: University of North Carolina Press, 2003), xiii-xiv.

events, as well as a particular trend or person's life.¹¹ Thus, learning about history is like looking through the kaleidoscope to better understand what happened in the past and its consequences. In other words, history allows us to pick up lessons from what was done wrong in the past and not to repeat it for ever. Therefore, learning about history in the contemporary society underlines an interesting notion about the negotiation between the past and present (and even future) – we learn about history because we are concerned about the past; and we learn about history because we can refashion the past for future use. This interesting notion is addressed by Andres Ruby, a German architectural critic and theorist, in the symposium “*Patronage of Space*.” In that symposium, Ruby explains his point of view: “On the one hand, you have this extreme petrification of the past in the name of authenticity, and on the other hand, you have situations where the past is just bulldozed as if nothing had happened since the tabula rasa days of modernism...I think there must be a way to negotiate the past and the present, and that transition would be interesting to think about.”¹² This form of negotiation between the past and present thus necessitates a compromise to mediate the two contradictory aspects [the past and the present], which is the central idea of this study.

However, how can history be helpful in our acts or decision-making in the present or future other than being a mere handbook? In a letter written on 19 December 1798 to Friedrich Schiller (1759 – 1805), Johann Wolfgang Goethe (1749 – 1832), a German writer and poet, philosopher, and historian respectively, “As for the rest, I hate everything

¹¹ *Oxford English Dictionary*, 2nd ed., s.v. “History.”

¹² “Preservation, Contemporary Art, and Architecture,” in *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism*, vol. 4, no. 2 (Winter 2007): 73.

that merely instructs me without increasing or indirectly rousing my activity.”¹³ Goethe’s words inevitably arouse the contradictory positions of worth and worthlessness of a handbook, which is history.

When philosophers are respectively finding the definition of human existence throughout history, Friedrich Nietzsche (1844 – 1900), a German philologist, philosopher, cultural critic, poet, and composer, interpreted human existence as a task of living – a task that we each approach individually based on our values. Nietzsche’s interpretation is in view of the fact that everything a person does will help gain a meaning (being engaged) while this meaning, bit by bit, will then be integrated into the task of living, defining the total task of human existence. This task of living, of course, includes the quest for knowledge and truth, especially the knowledge and truth about the task of living per se. The task of living nevertheless varies according to the values one follows, and it is unique because it is not carried out based on a “permanent nature but rather of producing the nature within the limitations of a situation.”¹⁴ At this point, we understand components of life such as producing nature, limitations, and situations are the contributors to the uniqueness regarding the task of living. In the quest for knowledge and truth of these elements, “History,” Nietzsche continues, “is the record of this self-production; it is the activity of a historical being recovering the past into a present which anticipates the future. With a total absence of this activity man would fall short of humanity: history is necessary.”¹⁵ Nietzsche’s explanation illustrates that history is a

¹³ Friedrich Schiller, Johann Wolfgang Goethe, and Dora Schmitz, *Correspondence between Schiller and Goethe: From 1794 to 1805* (London: G. Bell, 1877), 182.

¹⁴ Friedrich Nietzsche, “Introduction,” *On the Advantages and Disadvantages of History for Life*, trans. Peter Preuss (Indianapolis: Hackett Pub. Co, 1980), 1.

¹⁵ *Ibid.*, 1-2.

record of how the human race interprets their lives throughout time and produces their nature according to the situation and limitations, in addition to helping predict the future.

Understanding the task of living, which revolves around the components of life (e.g. producing nature, limitations, and situations), helps us understand that history is necessary for humanity. “Humanity” is the branch of knowledge concerned with human culture.¹⁶ Without having history to record the “production of nature within the limitations of a situation,” it is impossible to find out the root of each people, culture or nation. We are not able to find out how people create their nature based on the conditions provided and the consequences. We also cannot know whether the nature endures and how long it endures. By not possessing this knowledge, the ability of anticipating the future is not attainable either. Hence, in order to move towards the future, we need to comprehend the root of our nations beforehand. The more we grasp the understanding of our roots, the better we can master and unlatch the infinite possibilities of the future and colossal nature.

2.1.3 The Relationship between History and Historic Buildings

The explanation above sheds light on the significant relationship between history and historic buildings – history is the source to tell the root of each nation whereas historic buildings are the sources to reveal the history. Thus, the ultimate goal of protecting historic buildings does not only aim to protect the patrimony passed down by our ancestors, but also to keep the narration of what makes us who we are today, allowing the buildings per se to perform as the mediator to make an internal connection between us and our past. Nevertheless, it is important to bear in mind that not all history is good

¹⁶ *Oxford English Dictionary*, 2nd ed., s.v. “Humanity.”

memory and thus there is a certain degree of acquiring history for present or future use. Taking a glance at history, we see it is buried with, mostly, tragedies. It is about how each new movement built on the one before amidst involvement of wars and revolutions throughout the entire process, sacrificing lives of the innocent – a man, a culture, or a nation. For example, the “Vietnam War” was a costly armed conflict, in which the fighting took place in Vietnam between 1961 and 1975 (fig. 8). This war pitted the communist regime of North Vietnam and its southern allies, known as the Viet Cong, against South Vietnam and its principal ally, the United States; and has caused about 4 million deaths. In 1982, the Vietnam Veteran Memorials was built in Washington D.C. and the names of the killed or missing American army members were inscribed on the black granite wall of the memorial (fig. 9 and 10).¹⁷ This tragedy informs us the importance of interpreting and taking good care of history. Otherwise, it is possible to create the moment, as a specter, that leaves only nostalgia to the public without helping them to move forward in the contemporary society and future.

Hence, the appropriate way of dealing with history and historic buildings requires meticulous considerations and it is important to strike a balance in the degree we require history to service our lives. “For with a certain excess of history,” Nietzsche contended, “life crumbles and degenerates, and finally, because of this degeneration, history itself degenerates as well.”¹⁸ History is a handbook, not an instruction. It is impractical to follow the footprints of history without in-depth contemplation or assimilation into the contemporary being. By tailing after history, we will either repeat the same mistakes in

¹⁷ Nick Turse, “Getting the Vietnam War Wrong,” in *Nation* vol. 300, issue 8 (February, 2015): 22-24.

¹⁸ Nietzsche, *Advantages and Disadvantages of History*, 14.

the past or remain stationary without making improvements that lead to a better future. Instead, we should make improvements from the past by refashioning what has happened in the past, replacing what is lost, transforming the wounds into moral lessons and motivations. It is the ability to live “unhistorically” while the soul of history endures historically.¹⁹ This tendency highlights the important roles of architects, preservationists, and urban planners in the effort of reconciling the past and present through adaptive reuse in the name of historic preservation, which will be elaborated later (see Chapter 3).

2.2 Historical Consciousness

This section explains the emergence of historical consciousness in the nineteenth-century, which was induced by some of the political and societal events that marked a great difference between our past and our past past. It is important to discuss the concept of historical consciousness in this work, as this concept is believed as the trigger that leads to the shift of adaptive reuse, reintroducing adaptive reuse with a brand new identity as a philosophical treatment of historic preservation since the nineteenth to twentieth-century.

Throughout history, humans have been making improvements for better living conditions. Take forms of transportation for instance. We began transporting ourselves with our bare feet in the prehistoric period, followed by the domestication of animals as a means for transporting goods or even carrying humans (fig. 11). These forms of transportation were eventually displaced by the applications of rail transport with the invention of steam engine (fig. 12) during the industrial revolution between the eighteenth to nineteenth-century, and ultimately with the design of different modes (e.g.

¹⁹ Ibid., 9-10.

air, road, water, and space, etc.) of transportation we have today. We have been through a long evolutionary journey, in search of *modus operandi* for the sake of improving our living conditions as well as the surrounding environment. All effort was being done to detach us from the limitations and inconvenience of the past to make our lives easier.

With such aspiration and what we own today, we should have appreciated Modernism in the late nineteenth to early twentieth-century, in which period we began to be flooded with the invention of technological advancement. In this and immediately subsequent period after World War II, urban renewal practice took place as a method for social reform. The avant-garde worked intensely to come out with different urban planning strategies, aiming to clear the slums and eradicate traces of the past, or any infrastructure and objects, that hindered them from creating their so-called utopia. Take the largest slum clearance program in the United States led by Robert Moses (1888-1981) for example. Moses is an urban planner and master builder, who played a significant role in shaping the urban development of New York State in the twentieth-century. He successfully established the Title I of the US Housing Act of 1949 when he was a chairman of the Mayor's Committee on Slum Clearance between 1949 and 1960. The Title I was accomplished by numerous programs: planning 35 urban renewal projects, completing 17, and receiving \$65.8 million in Title I funds. The ultimate goal of the Title I was to clear the areas designated as slums in order to allow the private developers to redevelop and rebuild on the existing lands, as well as design highways to solve traffic flows in the city (fig. 13).²⁰

²⁰ Themis Chronopoulos, "Robert Moses and the Visual Dimension of Physical Disorder: Efforts to Demonstrate Urban Blight in the Age of Slum Clearance," in *Journal of Planning History*, vol. 13 (2014): 207-233.

Unfortunately, Modernism, which was expected to help detach us from the limitations and inconvenience of the past, did not last any longer than a century without fulfilling its promise. In *Romanticism and The Rise of History*, Stephen Bann, an Emeritus Professor of History of Art at the University of Bristol, exclaims, “the progressive and internationalist ideology of Modernism can hardly survive an epoch that makes us witnesses to the gradual disintegration of cultural identity into its component parts.”²¹ To expand Bann’s explanation, the reason that Modernism did not last is mainly because Modernist movement is a tyrannical action, in which the significant historic buildings that tell the cultural identity of each nation had been torn down for urban renewal practices. Without having these significant historic buildings, people felt disintegrated from their roots and thus began yearning for the past, which subsequently led to the fall of Modernism. This combination of thoughts and emotions only appeared during the Modernist movement but not before because Modernists perceived urban form development distinctly from the past of earlier epochs, that is, the traditional urban form.

In a very brief explanation, traditional urban form was created to allow mix-used purposes, in which the new constructions were shaped by the narrations of the existing surroundings and contexts as a continuation of the former urban development (fig. 14). On the other hand, Modernists perceived the city as a blank space for separate buildings to stand according to grid systems and separate zones without considering the continuation of the urban development (fig. 15). Thus, the planning and design of the Modernist urban form are just so perfect – as if, it is a final product that requires no

²¹ Stephen Bann, “Romanticism and the Desire for History,” in *Romanticism and the Rise of History* (New York: Twayne, 1995), 4.

expansion or addition.²² This kind of urban design nevertheless is equivalent to abolishing the continuity of the narration of the city, just as how it had bulldozed and terminated the continuity of history – the produced nature that tells the identity of each man, people, culture, and a nation.

While groups of avant-garde, either urban planners or architects like Robert Moses and Le Corbusier, were making their own historic moments to promote their innovations and novelties, similar to how far we have gone to free ourselves from the undesirable living conditions in the past, there arose a sense of historical awareness and ultimately the expansion of historical consciousness, both in Europe and America, in the nineteenth-century.²³ Historical consciousness was developed out of Romanticism. Romanticism is “a movement sprawled from Europe during the late eighteenth and nineteenth-centuries, which is marked by an emphasis on feeling, individuality, and passion rather than classical form and order.”²⁴ Having such freedom in expressing individuals’ emotions, history has become a great form of knowledge for inspiration in terms of different innovative disciplines such as literature, music, and art. Both Europe and America experienced a broad recurrence of historical interest and representation. For instance, the novelists of the 1820s were motivated by the “historical novel” while the paintings of the time were mostly inspired by the “historical genre.”²⁵ Not only history became a source of inspiration for the innovative discipline, but it also developed as a

²² Colin Davies, “The City,” *Thinking about Architecture* (London: Laurence King Pul., 2011), 142.

²³ Dorothy Ross, “Historical Consciousness in Nineteenth-Century America,” *American Historical Review* 89, no. 4 (October 1984): 909-928.

²⁴ *Oxford English Dictionary*, 2nd ed., s.v. “Romanticism.”

²⁵ Bann, *Romanticism and the Rise of History*, 4.

subject matter for the world of mass media, proven by the popular historical magazines in America, such as *American Heritage*, *Horizon*, and *History Today*, etc.²⁶

In response to the illustration above, Bann exclaims that this phenomenon is a “momentous social revolution,” as it is the first time in which history is not only cherished by historians or antiquarians but a mass reading public, who forced the marketability and urge for historical magazines, as well as historical knowledge through different forms of representations. He also explains that the occurrence of Romanticism and historical consciousness is explainable through the irreversible qualitative and quantitative shift between our past and our past pasts.²⁷ In other words, how we perceive our past is different from how our ancestors view their pasts. This shift can only be thoroughly grasped by taking a close examination of what happened from the seventeenth to eighteenth-centuries, which are the centuries of history, evolution, and economics, etc.

One of the salient examples is the great system of the physical universe in the 1680s, which reflects the transformation of human beings’ belief in God’s role – from a creator and ruler of the universe reduced to a mere creator, whereby the King would be the God’s immortal representative on earth to rule.²⁸ Take France for example. This transformation of belief has formed a great transformation from the theocratic to secular system, in which people no longer idolized God but believed in the King as the ruler in the form of the absolute monarchy system. Another conspicuous example that made a turning point in the globe as a whole, the French Revolution has been heavily associated to revolutionary movement and caused political and social changes. Lasting from 1789 to

²⁶ John Lukacs, “Our Historical Condition or the Evolution of Historical Thinking,” in *Historical Consciousness: or the Remembered Past* (New York: Harper & Row, 1968), 4.

²⁷ Bann, *Romanticism and the Rise of History*, 5-7.

²⁸ Lukacs, *Historical Consciousness*, 15.

1799, the French Revolution was an outbreak adduced to the inalienable rights between the prosperous elite of wealthy commoners and peasants. During this period, King Louis XVI was sent to the guillotine and condemned to death for betraying his nation.²⁹ The death of the beheaded King (fig. 16) brought up a radical transformation, in which the French citizens had thought the immortal King, as God's representative, in fact was mortal. This transformation of the King's role led the French citizens to uproot the absolute monarchy system, as well as raze and redesign the political system and landscape of their country.

Great shifts in both political and societal systems such as the above examples have thoroughly delineated the conspicuous difference between our past and our past pasts. Hence, the centuries before or around these historical moments deserve our historical awareness, as well as prompt to the expansion of historical consciousness. This expansion of historical consciousness was evidently reflected by representations in different modes, such as works done by the artists, poets, and writers. Take the painting called *Angelus Novus* (fig. 17) by Paul Klee, a Swiss artist, of 1920 for example. This painting is invoked and discussed in the expansion of historical consciousness because it is a great example of representation in both art and literature. It was observed and bought by Walter Benjamin (1892-1940), a German cultural philosopher, who subsequently included this painting for his study of philosophy of history. In *Illuminations*, Benjamin interprets his point of view regarding the painting:

It [*Angelous Novus*] shows an angel looking as though he is about to move away from something he is fixedly contemplating. His eyes are staring, his mouth is open, his wings are spread. This is how one pictures the angel of

²⁹ "French Revolution," History, accessed February 1, 2015, <http://www.history.com/topics/french-revolution>.

history. His face is turned toward the past. Where we perceive a chain of event, he sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise; it has got caught his wings with such violence that the angel can no longer close them. This storm irresistibly propels him into future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress.³⁰

Benjamin's interpretation illustrates the ironic thoughts of Klee when he painted the *Angelus Novus*, in which history is a form of knowledge that would avoid us repeating mistakes made in the past but the progression toward future is tyrannically detaching the society from the knowledge of history. The situation of living apart from history brings no advantages to the society and thus historical consciousness is needed.

In addition to the representations in arts and literature, the historians, antiquarians, and preservationists seek ways to preserve the patrimony handed down by our ancestors, keeping and interpreting them to be perceivable by the latter generations. This is proven by the great examples of the development of historic preservation in the United States, which is explicitly discussed in the later sections (see Chapters 2.3 and 2.4).

2.3 Development & Growth of Historic Preservation in the United States

This section throws light on the development and growth of historic preservation in the United States, beginning with the rudimentary stage, which was initiated from the private sector and gradually legitimated by the government sector. This section also introduces different federal agencies that take care of varying historic preservation

³⁰ Walter Benjamin, "Theses on the Philosophy of History," in *Illuminations: Essays and Reflections*, ed. Hannah Arendt (New York: Random House, 1988): 257-258.

programs and activities, as well as the establishment of differing acts to consolidate the accomplishment of historic preservation in the United States.

The effort of adaptive reuse for historic preservation purposes started in the early nineteenth-century from the grass roots of private individuals and endeavors. The Old State House of Philadelphia (fig. 18) is an example of whose preservation was initiated by the private sector, the community activists.³¹ This example is discussed because it demonstrates one of the embryonic motivations of preserving a building for the history and national identity of the nation itself. The Old State House of Philadelphia, also known as the Independence Hall, was constructed in the eighteenth-century as the Pennsylvania State House. The Old State House has been standing significantly at its location since it was built and has attracted attention from the public, both local and national, because of its association with the founding documents of the nation.³² The city purchased the weathered and degenerated Old State House in 1813 and unfortunately planned to subdivide the surrounding land as building lots. The community nevertheless opposed and argued that the building should be preserved since it is a significant setting to commemorate the Second Continental Congress in 1776. It is the birthplace of America, where the Declaration of Independence (fig. 19) and the U.S. Constitution were both debated and signed.³³ The redevelopment plan was finally called off, turned into a restoration project, and ultimately converted into a pristine artifact as a museum for the

³¹ Barry Cullingworth, "Historic Preservation in the USA," *Built Environment*, vol. 23, no. 2, Conservation in Western Planning Systems (1997): 137-143.

³² Charlene Mires, "In the Shadow of Independence Hall: Vernacular Activities and the Meanings of Historic Places," in *The Public Historians*, vol. 21, no. 2 (Spring 1999): 49-64.

³³ Robert Stipe, "Introduction: America's Preservation Ethos," in *A Richer Heritage*, (Chapel Hill: University of North Carolina Press, 2003), 1-2.

public to tour, understanding each step the Founding Fathers made, argued about, and created for the nation of America.³⁴

The significant transformation of the Old State House to the Independence Hall, initiated by the private sector, successfully demonstrated the public's patriotisms in preserving the nation's identity. This conspicuous accomplishment has also captivated the attention of the government in developing, consolidating, and legitimizing other historic preservation actions, and later through adaptive reuse, bringing adaptive reuse to a success of a philosophical treatment of historic preservation. The historic preservation actions began with the scenic landscape across the United States when in 1872 Congress established the world's first national park, Yellowstone, which covers over two million acres of public land in Montana, Wyoming, and Idaho (fig. 20). This preservation effort successively led to the establishment of the National Park Service and National Trust Historic Preservation, in 1916 and 1949 respectively, as federal agencies to watch over variety of historic preservation programs across the United States.³⁵

In the twentieth-century, adaptive reuse, in the name of historic preservation, was developed and dug in much deeper through educational discipline to ruminate on historic preservation holistically. For instance, in 1964, James Marston Fitch, American architect and preservationist, founded a master's degree program in Historic Preservation at Columbia University as the first such program in the United States. This program sets out to prepare keen individuals to redefine the boundaries and practices of handling

³⁴ Charlene Mires, "In the Shadow of Independence Hall: Vernacular Activities and the Meanings of Historic Places," in *The Public Historians*, vol. 21, no. 2 (Spring 1999): 49-64.

³⁵ Stipe, "Introduction: America's Preservation Ethos," in *A Richer Heritage*, 8-11.

patrimony.³⁶ From the standing point of education and architecture, the establishment and mission of the first such program underlines the historical consciousness of the time in seeking the injection of critical thoughts and professional theory on historic preservation. This tendency inevitably sheds light on rethinking one of the earlier held approaches – adaptive reuse projects – as a method to strike a balance between historic preservation and urban development.³⁷

Begun in the early nineteenth-century with private endeavors and gradually grown into a national network in about a hundred year with the aims of protecting patriotisms monuments and landmarks, historic preservation found its own new direction in 1966 with a dedication to the report *With Heritage So Rich* sponsored by the U.S. Conference of Mayors.

What we want to conserve, therefore, is the evidence of individual talent *and* tradition, of liberty *and* union among successive generation of Americans. We want the signs of where we came from and how we got to express the thoughts in action. We want to know the trails that were walked, the battles that were fought, the tools that were made. We want to know the beautiful or useful things that were built and the originality that was shown, the adaptations that were made and the grace-notes to life that were sounded. We want to know the experiments in community living that were tried and the lessons that were taught by a brave failures as well as by a brace success.³⁸

The report has made a clarion call that we are to move from preserving only landmarks and historic places to story of the historic sites, which are important to provide the

³⁶ “Historic Preservation Mission,” Graduate School of Architecture, Planning and Preservation, Columbia University in the City of New York, accessed January 27, 2015, <http://www.arch.columbia.edu/programs/historic-preservation/mission>.

³⁷ Robert Garland Thomson, “Taking Steps Toward a New Dialogue: An Argument for an Enhanced Critical Discourse in Historic Preservation,” *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 1, no. 1 (Spring 2004): 11-12.

³⁸ U.S. Conference of Mayors, *With Heritage So Rich* (Washington, D.C.: Preservation Press, 1983), 23.

collective memory of the American people as a nation of diversity. With this new direction, the National Historic Preservation Act was implemented in 1966 to include the National Register of Historic Places, as well as the establishment of the Advisory Council on Historic Preservation (ACHP). The implementation of the act also provides federal funding to support historic preservation programs across the United States, while the federal agencies are responsible for evaluating federal-funded historic properties.

While the Advisory Council on Historic Preservation plays its role in advising the President and Congress on any acts of historic preservation, the National Park Service takes care of a variety of programs and activities related to historic preservation. Maintained by the National Park Service, the National Register of Historic Places is the official list, which is responsible for identifying, evaluating, recognizing, and recording the patrimony that is significant on national, state, and local level. In order to embody the National Historic Preservation Act of 1966, the patrimony now includes a wide range of historic properties such as districts, sites, buildings, structure, and objects, etc. Throughout the entire process, a nomination form is filled out to report the conditions of each historic property, waiting for proper treatments – restoration, conservation, reconstruction, and rehabilitation or adaptive reuse – which will be discussed later (see Chapter 2.4).³⁹

Focusing on the last treatment, not only has adaptive reuse consolidated any historic preservation programs or vice versa, but it also infused the historic buildings with new identity to perform, both historically and unhistorically, in the contemporary urban fabric. Because of the adaptive reuse's capacities in injecting new identity,

³⁹ Stipe, "Chapter 2: The Federal Preservation Program," in *A Richer Heritage*, 35-40.

downtown areas of many cities have been the ideal targets for adaptive reuse project owing to the human traffic in order to create the collective memory of a community. Take Boston's Quincy Market and Faneuil Hall, which was built in 1742 to serve as the nation's first festival marketplace and meeting hall ever since, for example. Planned by the developer, James Rouse, Boston's Quincy Market and Faneuil Hall have been revitalized again, comprising shops, restaurants, and a huge food emporium within an old market building (fig. 21). This project is known as an exemplar of historic district revitalization through adaptive reuse, in which it was planned and built like a community or district with mixed-use functions. Allowing mixed-use functions within a district helps create a livable environment, as the public is able to access to all kinds of service they need in their routines in a close proximity. The apparent success shown by the festival market also successfully enlightened the feasibility of historic districts revitalization, through adaptive reuse, for both commercial and residential purposes.

Accompanied by the implementation of the Tax Reform Act of 1976 and later the Economic Recovery Tax Act of 1981, which offer tax incentives for rehabilitating historic properties, the number of adaptive reuse projects and historic district revitalizations increases at an even higher and faster rate. Hence, the historic properties have been becoming more acceptable in the contemporary society in spite of their incongruous forms and building materials, as well as gaining their identity by offering different forms of service to the community that they cannot live without.

In brief, the development of historic preservation in the United States can be comprehended by categorizing it into four major steps: the private sectors, the government sectors, the education sectors, and a new direction. In the early nineteenth

century, the acts of historic preservation were initiated by the private sector. One of the salient examples was the private sector's effort in preserving the Independence Hall in Philadelphia, which had subsequently captivated the government sector. Thus, in the late nineteenth century, the government sector began historic preservation with protecting scenic landscape, and a number of federal agencies were established to watch over the variety of historic preservation programs across the country. As historic preservation had become a field that acquired professional theories and critical thoughts, in the late twentieth century, Columbia University created the first master's degree program in historic preservation, educating the potential professionals to redefine the boundaries and practices of treating historic properties. Immediately after the effort made by the education sector, a new direction arose by implementing the National Historic Preservation Act of 1966, leading to the establishment of other forms of programs and agencies to take care of the historic properties that necessitate federal funds support. With such orderly structure and development, the National Register list today composed of more than 80, 000 properties, including buildings, sites, districts, structures, and objects.⁴⁰

2.4 Philosophical Treatments of Historic Preservation

The preservationists have made a great deal of effort in bringing up a diversity of philosophical treatments for the purpose of protecting historic buildings. This section discusses these treatments as a successive effort in addition to the variety of historic preservation programs, agencies, and acts as discussed above (see Chapter 2.3). These

⁴⁰ "National Register of Historic Places Program: About Us," Google National Park Service, accessed April 22, 2015, http://www.press.uchicago.edu/books/turabian/turabian_citationguide.html.

approaches are profoundly defined and organized by the National Park Service, acting on behalf of the Secretary of Interior, which including restoration, conservation, reconstruction, and rehabilitation or adaptive reuse.⁴¹

2.4.1 Restoration

Restoration is one of those philosophical treatments of bringing something back to its original form, removing those features added in later periods, and inserting the missing features taken away during its history.⁴² A salient example of restoration is the Frank Lloyd Wright Home and Studio in Oak Park, Illinois (fig. 22). This is a significant building to be preserved, as Frank Lloyd Wright (1867-1959), one of the greatest American architects, had lived in the home for many years. This example shows philosophical challenges of any restoration projects. Throughout the years, additions and modifications were made by Wright – started the design construction in 1889 (fig. 23) to the addition made in 1895 (fig. 24) and finally modified it to a home and studio from 1898 to 1909 (fig. 25). It simply stands as an archive to acknowledge the evolution of Wright’s philosophy.

After 1909, Wright remodeled the home and studio into a rental unit. This prompted to a changing of the layout of the original home and studio, which were thought to have somehow distorted Wright’s design philosophy. This issue prompted The Frank Lloyd Wright Home and Studio Foundation to plan for a restoration project on this building. The restoration project, however, was confronted by the uppermost challenge,

⁴¹ Norman Tyler, Ted Ligibel, and Ilene R. Tyler, “Intervention Approaches, Documentation, and Technology: Conservation,” in *Historic Preservation: An Introduction to Its History, Principles, and Practice* (New York: W.W. Norton & Co, 2009), 189-201.

⁴² *Ibid.*, 194-195.

that is, the appropriateness and decision to restore to which specific period.⁴³ If we are to follow the rules of restoration, which point of the past should the project be restored to, its original structure in 1889 or when Wright stopped modifying the house? This decision, nevertheless, meant to exclude and disregard elements from other periods, which are also the crucial elements to portray Wright's philosophy. Although the final decision was made to restore the property to the year 1909, when Wright and his family moved out from the house, should this have violated the rules of restoration? Moreover, the approach of restoration is challenged by the contradiction that emerges between classical materials and building techniques on the one hand; and modern material and construction methods that came into use in the latter stage, on the other hand.⁴⁴

2.4.2 Conservation

Another divergent philosophical position rolls in, which avoids the contradiction we saw in the above example of restoration, that is, conservation, which is preservation in the narrowest sense of the word. Rather than making any alterations, conservation advocates to retain historic structure from further destructive influences, natural decay, or waste. This approach can be conducted by examination, documentation, and treatment and preventive care.⁴⁵

One of the remarkable examples of conservation is the prehistoric monument – Stonehenge in Wiltshire, United Kingdom (fig. 26). Rather than restoration, conservation

⁴³ Frank Lloyd Wright Home and Studio Foundation, "The Home and Studio Building," in *The Plan for Restoration and Adaptive Reuse of the Frank Lloyd Wright Home and Studio* (Chicago: University of Chicago Press, 1978): 19-38.

⁴⁴ Nicholas Price, Mansfield Kirby Talley, and Alessandra Vaccaro, "Part V: Restoration and Anti-restoration: Introduction to Part V," in *Historical and philosophical issues in the conservation of cultural heritage* (Los Angeles: Getty Conservation Institute, 1996), 308.

⁴⁵ Tyler, Ligibel, and Tyler, *Historic Preservation*, 191-193.

was considered as the most appropriate treatment for Stonehenge. This is simply because Stonehenge is a prehistoric monument, which was built in 2000 BC, and we never know the original state of this thousands of year old monument. For the mission of sustaining its heritage value and exposing those values to present and future generations at the same time, the conservation acts are taken in different forms. The most fundamental is controlling of visitor flow as well as prohibiting public access to the stones themselves. This is enhanced by setting up ropes and barriers around the stones to prevent the public reaching out to the stones. Besides, planning for grass paths around the monument to regrow is conducted in order to maintain its very original form, as well as to minimize the impact and damage to the layers underneath the ground as the visitors walk near the monuments.⁴⁶ This planning implements historical research to record, document, and compare the archaeology and land use over time while the original documentation will serve as an objective reference for ongoing process, returning the grass paths to the original appearance.⁴⁷ The conservation approach, nevertheless, is confronted by the idealist philosophers who criticize it as an act of falsification owing to the intention of canceling the passage of time.⁴⁸

2.4.3 Reconstruction

In the name of historic preservation, another treatment that involves the rebuilding of a structure is reconstruction. This treatment is necessarily called in when the

⁴⁶ “Managing Stonehenge: Conservation and Research,” Google English Heritage, accessed September 17, 2014, <http://www.english-heritage.org.uk/content/imported-docs/education/conservation-research.pdf>.

⁴⁷ “Stonehenge, Avebury and Associated Sites,” Google United Nations Educational, Scientific and Cultural Organization, accessed September 17, 2014, <http://whc.unesco.org/en/list/373>.

⁴⁸ Price, *Historical and philosophical issues*, 310.

contemporary context requires the missing historic structure to be in place physically for a better understanding of the significant historical context. Thus, reconstruction necessitates adequate historical documentations and record as a reference to assure accurate reproduction.⁴⁹ At this point, both “restoration” and “reconstruction” may sound identical, as both philosophical treatments require sufficient historical documents as reference. However, the way preservationists, architects, or designers deal with the historical documents mark a great difference between the two treatments. For restoration, the historical documents are required in order to study the design of a particular property, as well as its original design or any significance of a particular time period. Thus, selecting and justifying a significant time period is crucial in restoration projects. If a portion of the building is found missing or unnecessary, which is crucial to interpret the historical context of a particular time period, the restoration work will require the insertion or demolition of that particular portion. Reconstruction is ideally considered as a treatment when a historic property or component is missing, yet it is important to be physically recreated for contemporary depiction and understanding.

For instance, the Mound of Vendôme (fig. 27) is a reconstruction project of a heap of mound surrounding the Vendôme Column to commemorate the *Commune de Paris* in 1871. The Vendôme Column, which was built in 1873, initiates as a tower symbolizing the might and triumph of the Napoleonic military in the Vietnam War. Nevertheless, the members of the *Commune de Paris* voted to destroy the Vendôme Column. Thus, the mound was laid around the base of the Vendôme Column in order to protect the windows and walls of the surrounding buildings from the impact of

⁴⁹ Tyler, Ligibel, and Tyler, *Historic Preservation*, 195-197.

demolition. The plan of demolition was eventually called off, as the necessity to commemorate the historical and radical events of 1871 was appreciated. In 2012, David Gissen, an architectural historian, proposed that the mound should be rebuilt in 2015 since it is a symbol of the revolution and the column's destruction, as well as the interest of the Commune in urban care for the sake of historic preservation and the future of the city.⁵⁰

2.4.4 Rehabilitation or Adaptive Reuse

Considering the challenges and criticisms from the scholars regarding the treatments illustrated above, rehabilitation arises as another set of philosophical treatment. This treatment allows compatible use of the historic properties through appropriate repairs, alterations, and additions. According to its flexibility and ability to adapt to new uses, this treatment is also known as adaptive reuse. However, there is a fundamental difference between rehabilitation and adaptive reuse. Rehabilitation usually only involves minor alterations, in which the sustainable function can be the same as the former function of the old building, while adaptive reuse results in a conscious act of saving old building, which results in major permanent changes, in terms of the architectural form and a brand new function, to the original building.⁵¹ Different kinds of architectural case study of adaptive reuse will be discussed explicitly later in this work.

⁵⁰ Giovanna Borasi, "David Gissen: The Mound of Vendôme, A Petition, Paris," in *Abitare* (September 2012): 86-89.

⁵¹ Christina Bond, "Adaptive Reuse Practices in the U.S.," in *Adaptive Reuse: Explaining Collaborations within a Complex Process* (Department of Planning, Public Policy & Management, University of Oregon, 2011), 1.

2.5 Defining Historic Buildings

In the field of historic preservation, there are a few questions that often sprawl around: 1) what are we to preserve? 2) Who gets to decide what we are to preserve? 3) How do we evaluate a building as a historic building that necessitates preservation? In order to answer these questions, the National Register of Historic Places was established with the implementation of the National Historic Preservation Act of 1966 (see Chapter 2.3). To be on the official list of the National Register of Historic Places, the characteristics of the old building have to align with the National Register Criteria for Evaluation. This section explains the three main criteria – time, integrity, and significance – which help identify a building as a historic building that is worth for preservation.

Time is the first and foremost criteria when it comes to defining historic buildings; we do not call a recently built building a historic building. As stated by preservation theory and practice, in order to be eligible for the listing on the National Register of Historic Places, the building has to be at least 50 years old, which is a long period to mark conspicuous differences between the contemporary society and the moment when the building was built, in terms of formal expression and construction methods and materials.⁵²

Integrity is another criteria for evaluating and identifying historic buildings. Each building is built with certain sets of character-defining characteristics and architectural styles that are able to show the building's own stories and epochal quality. In other

⁵² “National Register of Historic Places Program: Fundamentals,” Google National Park Service, accessed April 17, 2015, http://www.nps.gov/nr/national_register_fundamentals.htm.

words, by looking at the characteristics and styles of the building, one is able to tell which period the building belongs to, as well as the stories of the building itself. To consider whether or not the styles of the buildings built are genuine and authentic to its epoch, it is necessary to have the historical documents for reference, such as a plan with integrity showing construction materials, structural systems, construction details, and interior design features, etc. The fewer changes made to the character-defining characteristics since their first construction, the more integrity the buildings have in order to be determined as historic buildings.

The last but not least consideration is the significance of the building; we will not appreciate an old building as a historic building if it is a building merely functioning alone without making contributions to its surrounding context. To argue for the significance of a building, there are four different categories to be considered: event, person, architecture, and archaeology. For the first category, the at least 50 years old building with its character-defining features has to be imperatively associated with any periods or events that contribute to the development of American history. The second category is considered when the building is not directly related to any periods or events; in which the building has to at least associate with important figures of a period that contributes to the broader patterns in American history. The third category involves the architectural significance of the building. In other words, the building has to bear distinctive architectural styles or characteristics of a type, period, or method of construction. Another ways to consider the building architecturally significant is when the building represents the work of a master, possesses high artistic values, or represents a significant entity that can be an example for academic research. Archaeology is the last

criteria for considering the significance of a building, in which the landscape architecture has yielded or has the potential to yield important archaeological information in prehistory or history.⁵³ A building does not necessary to possess all these four categories at the same time in order for it to be eligible for registration; a building that falls into at least one or more of these categories is considered significant and thus is eligible to be on the National Register listing for preservation treatments.

⁵³ Dennis Domer, "Old but not Good Old History: Prospects and Problems of Freezing Time in Old Building," in *Journal of Architectural and Planning Research* 26, no. 2 (Summer 2009): 95-110.

CHAPTER THREE: ROLES AND BENEFITS OF ADAPTIVE REUSE IN DIFFERENT PERSPECTIVES

When we consider adaptive reuse projects, questions may arise about why we bother to alter the historic buildings strenuously before we inhabit them. After discussing the four philosophical treatments of historic preservation (see Chapter 2.4), this section focuses on the roles and benefits of adaptive reuse in different perspectives – architectural, cultural, historical, environmental, economic, and societal. This discussion also yields findings about why adaptive reuse works well than other treatments do.

It is important to examine discussions presented by notable thinkers of historic preservation in order to identify important characters of adaptive reuse. These discussions do not only help us to compare each treatment hand in hand, but also allow us to understand how adaptive reuse outweighs the other treatments.

Remembering one of the first master builders that concerned with the restoration approach, Eugène Emmanuel Viollet-le-Duc (1814-1879), postulated his restoration philosophy, “To restore an edifice means neither to maintain it, nor to repair it, nor to rebuild it; it means to reestablish it in a finished state, which may in fact never have actually existed at any given time.” This statement comes into conflict with the fundamental philosophy of restoration, as we understand today, yet it suggests a proper way to treat our historic building instead of blindly holding our nostalgia of the bygone eras. He again proposed, “Perhaps this is an opportune occasion for us to get a clear idea of exactly what is meant and what ought to be meant by a *restoration*.”⁵⁴

⁵⁴ Eugène Emmanuel Viollet-le-Duc, Barry Bergdoll, and Kenneth D. Whitehead, “Restoration,” in *The Foundations of Architecture: Selections from the “Dictionnaire Raisonné”* (New York: G. Braziller, 1990), 195.

Another leading English critic, John Ruskin (1819-1900), proclaimed his objection to the way of preservationists' endeavors in restoration. He states, "No restoration should ever be attempted, otherwise than...in the sense of preservation from further injuries...Anything beyond this is untrue in art, unjustifiable in taste, destructive in practice, and wholly opposed to the judgment of the best Archaeologists. Do not let us talk then of restoration. The thing is a Lie from beginning to end."⁵⁵ Based on Ruskin's criticism, it is apparent that any acts that attempt to restore the past are actually against the nature and beauty of historic properties.

Looking at another way of treating historic properties by Carlo Scarpa (1906-1978), whose works were most of the time influenced by history too, "The problem of historical materials, which we can never ignore but can't imitate directly either, is an issue that has always concerned me... Buildings that imitate look like humbugs and that's just what they are."⁵⁶ It is obvious about Scarpa's criticism in the endeavor of bringing the former back [restoration] and rebuilding [reconstruction] the past. The anxieties and concerns of the scholars about restoration, preservation, and reconstruction are understandable. This is entirely because any acts upon what is inherited from the past will be a mere imitation, which distorts the true narrative of the historic properties like how long have it survived and how long does the material or construction methods endure.

It is understandable that the concept of historic preservation revolved around the yearning for the past, longing for revisiting bygone societies. This desire nonetheless does not imply people would love to live in it wholly. They would rather revisit the past

⁵⁵ John Ruskin, "The Lamp of Memory," in *The Seven Lamps of Architecture* (New York: J. Willey, 1849), 185.

⁵⁶ Richard Murphy, "An attitude to history," in *Carlo Scarpa and the Castelvechio* (London: Butterworth Architecture, 1990), 4.

occasionally and whenever they want, instead of forcefully making them live in the past without having breathing room to escape or move forward.⁵⁷ When one is “imprisoned” in the past, he is not able to view it with a contemporary eye and thus learn his lesson. Only through adding elements from the contemporary into the historic buildings, where one has a delineation to traverse between the past and present within a space, will he be able to compare and contemplate the gap in-between. Not only the gap in-between helps us to understand what our ancestors had been through and how our lives now are a lot better because of their efforts, but also we are able to study and refashion the past to meet contemporary needs. With Jean Cuisenier, a French philosopher and ethnologist, “Heritage is something to be preserved and understood, but also to be modified to meet the needs of a changing world.”⁵⁸ This is the main reason why and how adaptive reuse is considered as the most appropriate treatment for servicing in historic preservation, considering the holistic relationship between patrimony, humans’ welfare, as well as urban growth.

In addition to the reasons illustrated above, adaptive reuse performs its roles and brings specific benefits to the contemporary society, which are not achievable in other philosophical treatments. The roles and benefits of adaptive reuse are studied in different perspectives: architectural, cultural, historical, environmental, economic, and societal. In architectural terms, adaptive reuse plays its role as a tool of self-understanding of time within the world, which is determined according to the architectural styles and iconic characteristics of each epoch. In cultural terms, adaptive reuse is an act to preserve the

⁵⁷ David Lowenthal, “Benefits and Burdens of the Past,” in *The Past is a Foreign Country* (New York: Cambridge University Press, 1985), 51.

⁵⁸ Jean Cuiseier, quoted in Michael Gibson, “Preserving France’s heritage from before the (Industrial) Revolution,” *IHT*, 5-6 July, 1980, 8.

evidence of human existence and allow the continuation of human development. In historical terms, adaptive reuse helps historic buildings to resurrect as a three-dimensional and interactive history textbook, which provides the contemporary society with a closer contact with history by living in a wider time-dimension and historical background. In environmental terms, adaptive reuse is a “green tool” for sustainable design, which creates livable and intimate living environment to the contemporary society. In economic terms, adaptive reuse possesses the innate value to prompt business incubations and attraction of heritage tourism interests, which indirectly generates income to the particular cities. In societal terms, adaptive reuse performs as a platform that enhances interactions and unites people, allowing the public to reside the historic buildings as the continuation of the former’s communities. In the following sections, we will examine the above categories of the roles and benefits of adaptive reuse.

3.1 Architectural Roles & Benefits of Adaptive Reuse

As today’s architects are competitive in search of design novelties, recycling and reusing historic buildings may be a huge constraint for them. This is because of the modernist urban form as discussed earlier, in which they perceive design as plotted out from a blank space, and as a consequence a final product does not allow any further development. Having a built structure, instead of a blank space, adaptive reuse may seem to architects prohibitive from thinking and designing out of the box. Accompanied by the guidelines and standards of keeping the historic features intact, it becomes seemingly impossible to incorporate any contemporary design and make historic buildings appropriate for urban fabric. It also becomes impossible for them to serve their users.

Instead of thinking about how to blend the contradictory aspects together harmoniously and make the obsolete features appropriate for the contemporary urban fabric, perhaps the contrast itself is the hidden yet maximal potential of adaptive reuse, which helps maximize performance of the reused historic buildings to the public. Peter Blake (1920-2006), an American architect, historian, and theorist of architecture, observes:

All over the world, buildings that have been recycled from an earlier function to a new one seem to serve their users better today than they ever did before – and better than contemporary, brand-new efforts designed and constructed to a form that supposedly follows and expresses its function.⁵⁹

The statement illustrated by Blake may be skeptical, yet take a closer look at some of the examples: most salient public buildings are actually adapted to historic buildings that were designed for other functions. Take the Jewish Museum Berlin for example, which is known for the addition by Daniel Libeskind, a Polish-American architect. The Old Baroque Building of the Jewish Museum Berlin (fig. 28), the former Collegienhaus that first served as the regal Court of Justice, is reused for the museum's temporary exhibition rooms, event rooms, museum shop, and café.⁶⁰ Designed by Steven Holl, an American architect, the New York University Department of Philosophy is another great example of a public building that originally was a six-story nineteenth-century warehouse (fig. 29).⁶¹

⁵⁹ Peter Blake, "The Fantasy of Function," in *Form Follows Fiasco: Why Modern Architecture Hasn't Worked* (Boston: Little Brown, 1977), 20.

⁶⁰ Daniel Libeskind and Kristin Feireiss, "The Berlin Museum and Its Extension," in *Extension to The Berlin Museum with Jewish Museum Department*, 32-52.

⁶¹ Francoise Astorg Bollack, "New York University Philosophy Department," in *Old Buildings, New Forms: New Directions in Architectural Transformation* (New York: Monacelli Press, 2003), 58.

The very reasons why old, historic buildings – in particular, public buildings – are adaptive to new uses are inseparable from two aspects: their roles in the public and their architectural forms. On the one hand, public building is able to influence not only an individual or a group but also the community, and even the nation itself, as a public building is visited by or visible to the community frequently. On the other hand, the handsome forms of the old building itself, such as the pediments or arch windows, possess the capacity to demonstrate a sense of authority, trustworthiness, and durability. They are thought-provoking components of architecture that allow people to think beyond the time of being and make connections with the past, perceiving and contemplating their enduring existence for centuries. These forms are the significant architectural styles and elements defined by Sigfried Giedion (1888-1968), a Swiss historian and critic of architecture, as “spirit of the epoch.”⁶² According to Giedion, the “spirit of the epoch” helps uncover the epochal quality of each period, which is the essence that we should grasp and master in order to understand our current standing. Thus, in the act of historic preservation, these architectural styles that speak of the “spirit of the epoch” and delineate the remarkable distinct form from those of the contemporary society are the criteria to be considered as historically significant and worth preserving.

As architectural styles are the “spirit” that developed in each period throughout history, they are the features that once believed as the primary principles to construct exemplar architecture in each era. Thus, in adaptive reuse project, by solely looking at the iconic features that are kept intact, the architectural styles allow us to evaluate and identify the historical background of the building. Additionally, we can place the building

⁶² Sigfried Giedion, introduction to *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge Mass: Harvard University Press, 2008), 2.

to its historical context and serve as a tool of self-understanding of time within the world.⁶³

People may think adaptive reuse is bound to violate historic buildings when alterations are made. The alterations made nevertheless are acted upon meticulous consideration, contemplating what is appropriate to let go and to keep, ultimately through re-interpretation to help justify present attitudes and actions. Not only adaptive reuse helps protect the significant historic features of historic buildings, it also highlights what is important in the past that forges the contemporary society through the process of re-interpretation.

3.2 Cultural Roles & Benefits of Adaptive Reuse

As one ruminates on architectural style, it becomes evident that it is indeed composed of ideologies of how the human race of its period in history came up with particular forms. This set of ideologies is mainly constituted by the context and factors of its time, such as politics, economics, society, or even the activities and beliefs. All these components worked well relatively and composed the culture of each nation of its time of being. In other words, to know how and what we come from, it is imperative to know the culture of our own nation. Only through protecting the architectural styles are we able to protect the culture of an individual, a people, and ultimately a nation.

As a mediator that reconciles relics with contemporary fabric and usage, adaptive reuse at this point not only performs as a strategy to solely protect the significant historic buildings and features, it also helps historic buildings themselves to get exposed to the

⁶³ Norman Tyler, Ted Ligibel, and Ilene R. Tyler, “Architectural Styles, Contextualism, and Design Guidelines,” in *Historic Preservation: An Introduction to Its History, Principles, and Practice* (New York: W.W. Norton & Co, 2009), 63-64.

public and acknowledge what they housed that forged the culture of contemporary society. Instead of having the significant relics to be imitated or displayed in museums and watched through a piece of glass with certain distant and written narrations, adaptive reuse allows us to get in touch with relics through firsthand experience. It allows us to explore the authentic site knowing this is the site where our ancestors carried out their activities and formed their, and our, culture within the surrounding limitations: touching on the genuine material, putting us in the presence of what was produced instead of imagining what the produced nature looked like.

In addition, culture embodies the root of our human race – it not only performs as an evidence of human existence, but also allows the continuation of human development, as it is passed down from one generation to another. This is simply because when people of different periods move in and inhabit the same building, they will add layers of history of their time of being, with their kinds of interpretation that are distinct from other periods. This tendency subsequently enriches the layers of history within a building, as well as allows the latter generations that take over the building to render the presence of the former generations and continue the narration with their own interpretation. Without having adaptive reuse to allow continued use of the same building and the continuation of human development, we will not be able to relate our habit and memory with past experiences; we see no sight and hear no sound from our ancestors – what we understand about our existence is simply what we are accustomed to instead of knowing the evolutions and factors that form us into who we are. As Marcus Tullius Cicero (106BC-

43BC), an orator and statesman of Ancient Rome, puts it, “Not to know what happened before you were born is to remain forever a child.”⁶⁴

Based on the considerations above, here is the recommendation to the practitioners. To design a good adaptive reuse project, the new program embedded to the historic building should inform the contemporary society about what we do in the adaptive reuse building apparently is a developmental or successive practice from the building’s original purpose. This design consideration is to amplify and highlight the continuation of human existence, as well as the culture of each individual, people, and nation. Concrete examples will be illustrated through a few architectural cases in this study later.

3.3 Historical Roles & Benefits of Adaptive Reuse

People tend to perceive that adaptive reuse projects are simply an action to protect historic buildings from demolition, owing to the significant historic features of the buildings per se. To expand and further contemplate the concept illustrated above, these significant historic features of old buildings impeccably play a role further beyond their tangible forms. These features are the physical relics that survived from evolutionary catastrophes – they bear traces of time from how long they have stood and witnessed the development of their surroundings; they are covered by scars that acknowledge what they have been through, what made them wholly survive or partly torn; they entail the painstaking effort of our ancestors in the pursuit of happiness and of course the unpleasant experiences. In other words, historic buildings perform like three-dimensional and interactive history textbooks; they speak for their history and historical values, which

⁶⁴ Marcus Tullius Cicero, *M. Tulli Ciceronis Ad M. Brutum Orator: A Revised Text*, ed. John Edwin Sandys (New York: Arno Press, 1979), 125.

made them significant to be eligible on the listing for the National Register of Historic Places.

Embracing historic buildings into the contemporary fabric and usage allows us to get in touch with history intimately with a closer contact, as well as conduct our lives in a wider time-dimension and historical background.⁶⁵ This wider time-dimension and historical background allow our minds to traverse between past and present instead of solely living within our own time frame. By doing so, we are able to perceive the past historically, knowing the former mistakes and misfortunes that persist, and refashion it unhistorically by seeking better solutions. History and its values, at this point, rather than perform as prophecy, at least allow us to avoid repeating the same mistakes and catastrophes.

The desire of keeping and conveying historical values to the contemporary society, through adaptive reuse, is attainable when both architectural and cultural values occur concurrently. To comprehend this in-depth idea of adaptive reuse for historic preservation work, an analogy can be applied by invoking in nouns and verbs.⁶⁶ As we perceive something (i.e. architectural style) that can be seen, touched, and interpreted, it can be viewed as a group of objects, which are nouns. These nouns do not happen alone; they fundamentally perform as the physical space for various activities and practices to take place. As mentioned earlier, activities and practices are part of the components that constitute the culture. This perspective, in a natural manner, allows us to perceive the “culture that tells the stories of the physical space [historic building]” as the actions, which are verbs. To conclude this analogy, we can only profoundly understand the

⁶⁵ Giedion, *Space, Time and Architecture*, 7-8.

⁶⁶ Tyler, *Historic Preservation and Philosophical Issues*, 15.

historical value of a particular historic building when the architectural and cultural values are both retained and presented to us at the same time, just as how nouns and verbs are both needed in a complete sentence for interpretation.

3.4 Environmental Roles & Benefits of Adaptive Reuse

The Oglala Sioux people among the Native American Indians say, “Treat the earth well. We do not inherit the earth from our ancestors. We borrow it from our children.”⁶⁷ This Native American proverb reverberates with the implications of our actions today on the future and thus we are responsible for taking good care of our environment, assuring our offspring to succeed with a healthy and livable habitat.

From the environmentally friendly perspective, adaptive reuse is a “green tool” to propagate healthier communities owing to its role in sustainable development. Adaptive reuse is considered sustainable and intrinsically energy-saving because when it recycles and reuses a historic building, it intermediately cuts down the demand of energy consumption and production throughout the processes of demolition and new construction, which include the energy for acquiring resources, delivering products, and manufacturing products, etc. This energy used throughout the project is defined as embodied energy. Thus, adaptive reuse not only helps preserve historic building and embodied energy, but also reduce adverse impact to the environment.⁶⁸ It is not to say that adaptive reuse is not net-zero throughout the process of alteration; it is just much lower when compared to energy costs for new building construction.

⁶⁷ “African Saying for the Month: September, 2010,” Google African Proverbs, Sayings and Stories, last modified December 10, 2014, accessed December 10, 2014, <http://www.afriprov.org/index.php/african-proverb-of-the-month/46-2010apotm/545-sept2010apotm.html>.

⁶⁸ Nebraska State Historical Society, *Building on the Historic Cultural Foundations of Nebraska: The State Historic Preservation Plan for Nebraska, 2012-2016*, 19-21.

In addition to energy saving, adaptive reuse possesses the capacity to create a livable and intimate environment. The reason is that adaptive reuse is able to locate both commercial and residential activities together in the existing fabric within the urban cores where public infrastructure is already in place. Consequently, mixed-used functions are created in close proximity, which are accessible to the community. This kind of close proximity community requires no necessity to exploit and develop new suburban areas, as well as reduces the use of transportation that emit waste and pollution. As a result from the close proximity, the public is able to move from one place to another on foot, exploring the community with closer contact and greeted by a mixture of reused historic buildings and contemporary buildings. In addition, they are able to make connections with the past, not only within a building but also in a larger sense as a community.

3.5 Economic Roles & Benefits of Adaptive Reuse

Renovating and reusing an old site often prompts us with the question of price – dollars and cents. Thus, the perspectives of the owners, bankers, and developers have an important role to play here because they are the individuals who invest and bring these activities to reality. We have discussed the contributions of adaptive reuse in other perspectives, on the one hand; the advantages of adaptive reuse remain controversial from an economic perspective, on the other hand. The owners, bankers, and developers primarily are the individuals that spur this controversy, as they believe that the cost of renovating and adapting these old sites is even higher than new building development.⁶⁹ As conspicuously shown in Table 1 and 2, the cost per square foot for renovation is

⁶⁹ Robert Shipley, Steve Utz, and Michael Parson, “Does Adaptive Reuse Pay? A Study of the Business of Building Renovation in Ontario Canada,” in *International Journal of Heritage Studies*, vol. 12, no. 6 (November 2006): 505.

mostly higher than that of new construction, especially for commercial and educational purposes that range from 18,000 to 50,000 ft^2 , which are the perfect sizes of space for business incubation. These figures, however, only represent the price for construction at the time. From a holistic standpoint, should we, too, think about those expenses spent on buildings demolition, as well as time consumed for both demolition and construction? Standing at the point of making short-term decisions for long-term consequences, whenever we pay for a particular item, it does not only entail the price itself for a period, but the worth and quality that come along with it – that is what we call the “innate value.”

The innate value of a reused site is amplified when the familiarity of the historic building is able to stimulate one’s wonder and reflection.⁷⁰ These mixed emotions usually occur when there is a contrast between the old and the new fabric within one structure, which successively allows us to perceive how far we have gone and survived from the past. The value obtained from this sort of ethical self-understanding and appreciation of the past has far surpassed the price paid for adapting the site.

Another innate value of adaptive reuse is prompted by the attraction of heritage tourism interest, which will subsequently generate economic benefits to the cities and regions. This is simply because tourists are particularly looking for places with historic sites that are able to bring about exotic experiences.⁷¹ In the course of globalization, the preserved historic sites are keys to the contribution of exotic experiences owing to the distinctive architectural style formed by different cultures and countries. Other than those

⁷⁰ Johannes Cramer and Stefan Breitling, “Architecture and time: the value of the built environment,” in *Architecture in Existing Fabric: Planning, Design, Building* (Basel [Switzerland]: Birkhäuser, 2007), 24.

⁷¹ Christina Bond, “Adaptive Reuse Practices in the U.S.,” in *Adaptive Reuse: Explaining Collaborations within a Complex Process* (Department of Planning, Public Policy & Management, University of Oregon, 2011), 7-8.

preserved museums and heritage sites, urban adaptive reuse is another method to directly provide the tourists their desired experiences – as they are able to dine in a reused restaurant or lodge in a hotel, which is transformed from a former prison or some other purposes, for instance.

3.6 Societal Roles & Benefits of Adaptive Reuse

To shed light on the role of adaptive reuse in social terms, we first have to comprehend the word “social” itself. It is defined as “consisting or composed of people associated together for friendly interaction or companionship.”⁷² It is plausible that adaptive reuse projects, especially on larger scale like historic district revitalization, have the capacity for enhancing interaction and uniting people. This is due to the traditional urban form developed in the past, in which public spaces were placed at the core, surrounded by other mixed-use functions in close proximity. At this point, by revitalizing the historic district through adaptive reuse, those vital contemporary functions and services that we often visit today are once again injected and reintroduced into historic buildings in the urban core. These historic buildings, by all means, ultimately serve as important public spaces for congregation once again within their district in contemporary societies. Through such congregation, contemporary societies are able to reside in the historic buildings again as the continuation of the former communities. The idea of “community’s ethos” comes from the definition of Karsten Harries, a professor of philosophy at Yale University. In *The Ethical Function of Architecture*, Harries refers to “community ethos” as the “spirit that presides over its activities,” while “ethos” itself is

⁷² *Oxford English Dictionary*, 2nd ed., s.v. “Social.”

defined as “the way human beings exist in the world: their way of dwelling.”⁷³ To explain Harries’ definition in a simpler sense, adaptive reuse acknowledges how our ancestors dwell in this world, in particular, within their urban core in close proximity. This is akin to how we should dwell in their revitalized historic district as the continuation of their scripted narrations.

In addition to congregation, the reused historic buildings are able to render a sense of familiarity. We recognize every object, every building, and every scene at the surroundings and we even know the stories about them because “previous encounters and tales heard, books read, pictures seen, have made them already familiar.”⁷⁴ We have seen them in historical films; we learned their stories from history textbooks; and we even heard about them from our grandparents’ life stories. This familiar ability to relate what we own today with past experiences not only provides us a better sense of our existence, in terms of social values, meaning, and identity, but also makes our surroundings comfortable and safe to dwell within. The familiar grids and landmarks for orienting ourselves subsequently serve as the guidance in our life in our search for identity and a proper way to live and explore.

This chapter examines the roles and benefits of adaptive reuse in different perspectives – architectural, cultural, historical, environmental, economic, and societal – which succinctly explains why adaptive reuse outweighs other philosophical treatments. This is mainly because while other treatments only consider historic properties as dead monuments, adaptive reuse regards these properties as the embryos for developments and

⁷³ Karsten Harries, “Introduction: Postmodern Prelude,” in *The Ethical Function of Architecture* (Cambridge Mass.: MIT Press, 1997), 4.

⁷⁴ Lowenthal, *The Past is a Foreign Country*, 39.

longevities. In other words, adaptive reuse does not only show reverence to the past, but also celebrates the past with a brand new identity and *raison d'être*, allowing them to be the root to anticipate the contemporary urban development.

CHAPTER FOUR: TYPOLOGICAL GROUPINGS & STRATEGIES OF ADAPTIVE REUSE

4.1 Typological Groupings of Building

In order to design, it is mandatory for architects or designers to first comprehend the typological groupings of building based on the expected use, which help to analyze the design of a building according to a set of particular group rather than individual oddity. Within the philosophical treatments of historic preservation (see Chapter 2.4), this section focuses on the typological groupings of building in a general sense, which prompts to the explicit study of typological strategies of adaptive reuse – insertions, parasites, wraps, juxtapositions, and weaving – in the later section (see Chapter 4.2).

In *A History of Building Type*, Nikolaus Pevsner (1902-1983), a German-born British scholar of history of art and architecture, conducted a survey of the history of building types. According to Pevsner, the differing functions of the forms or features of architecture are a reflection of the society's character. Hence, he categorized the building types according to their functions, such as national monuments, libraries, hospitals, and prisons, etc.⁷⁵

A divergent idea evolved later in *Architectural Principles in the Age of Historicism* by Carroll William Westfall, a former Chairman of the School of Architecture in University of Notre Dame. Westfall discusses architecture as political form, he contended, "...A building serves a political purpose and is therefore like an arrangement or an institution...Architecture serves politics when politics is the art of

⁷⁵ Nikolaus Pevsner, review of *A History of Building Types*, ed. Carl W. Condit, *Technology and Culture* 18, no. 2 (April 1977): 239-241.

living well together.”⁷⁶ To expand Westfall’s explanation, the form and type of a building are decided and categorized according to the political purpose the building is serving. This categorization is the general validity that informs certain features to be included in the design of a particular building type. Hence, Westfall classifies architecture into six types (fig. 30): *tholos* (venerating), *temple* (celebrating), *theater* (imagining or aspiring), *regia* (governing), *dwelling* (dwelling), and *shop* (sustaining).⁷⁷ To highlight the difference between the two scholars, Pevsner’s list of building type is categorized by the functions of the building carries, whereas Westfall’s kind of building form and type are grouped by the political purpose the building is to serve.

One of the practicing architects who incorporate typology in the design process is Rafael Moneo, a Spanish architect. According to Moneo, in order to design, it is vital to comprehend the typologies of building, as “that type means the act of thinking in groups.” Moneo contended, “He is initially trapped by the type because it is the way he knows. Later he can act on it; he can destroy it, transform it, respect it.”⁷⁸ To elaborate Moneo’s phrase, typology groupings of buildings help us evaluate buildings as part of a set of developing ideas – the ideas of a particular type – instead of mere individual oddities. Our understanding of that particular type, such as the limitations or capacities, then allows us to embark on the building with alternative design strategies. In line with the typology groupings of buildings according to functions, an equivalent effort is made on adaptive reuse based on differing design strategies. These kinds of specific typological

⁷⁶ Robert Van Pelt and Carroll Westfall, “Building Types: Types,” in *Architectural Principles in the Age of Historicism* (New Haven: Yale University Press, 1991), 154-155.

⁷⁷ Ibid., 155-160.

⁷⁸ K. Michael Hays, *Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984* (New York: Princeton Architectural Press, 1998), 23.

groupings help us better evaluate and organize the differing strategies to go about adaptive reuse explicitly, as well as to analyze and compare the capacity of each strategy.

4.2 Typological Design Strategies of Adaptive Reuse

After the discussion of the typological groupings of building as illustrated above, this section mainly focuses on the typological design strategies of adaptive reuse. This discussion is important, as the strategies help to understand the creative possibilities in the embarkation of adaptive reuse, which subsequently facilitate the design analysis of each architectural case study that will be discussed later in this work.

To be an ethical architect or designer is not about creating novelties out of nothing or solely based on market demands. Instead, we are to study, evaluate, plan, modify, and design the existing context as a whole according to the changing tastes and sensibilities throughout history. In other words, the role of architects and designers is to knit new pieces into the existing structure or environment, allowing the record of our lives and human existence to continue in an interpretative way within our historical perspectives. For one day when the later generations at the built environment, they are able to relate our creations to the roots of our shared history, just as how we perceive what was built for us, including the Parthenon in Greece (fig. 31), the Great Pyramids in Egypt (fig. 32), the St. Patrick's Cathedral in New York (fig. 33), and the Trinity Church in Boston (fig. 34).

The contrasting idea above – to create novelties or to design based on the existing environment – succinctly delineates the apparent difference between architects and designers on the one hand and inventors on the other hand. Moreover, even the definition of “architect” does not posit the word “create” nor “novelty” but “plan,” “design,” and

“arrange.”⁷⁹ Conversely, “inventor” is explained as the “first finder-out.”⁸⁰ Another apparent difference between architects and designers versus inventors is comparable to the design process – architects and designers begin designing with a site plan whereas inventors work with sketching ideas on piece of blank paper. To further analyze the role of architects and designers, a similar professional, artist, is invoked and compared. “Artist” is defined as a professional that is expertise in any kinds of the “fine arts and the works are mostly accomplished by imagination.”⁸¹ In other words, the role of artists has less societal obligation, as they are allowed to create their works solely based on their imagination, whereas the role of architects and designers will have more societal obligation when they are to “plan” and “design” for the built environment.

The above consideration on the role of architects and designers raises a question concerning aspirations for novelties. On the one hand, many modernists aspired to create novelties by generating new design ideas and forms, making it their goal to generate a great difference and departure from their precedents. On the other hand, some architects and preservationists are searching for novel design solutions in the incorporation of the new and the old fabrics through adaptive reuse. Most people assume adaptive reuse is about altering historic buildings to accommodate contemporary societies and functions. To emphasize the difference, it is not about introducing the obsolete into the urban fabric, because historic buildings are the record of history and we are part of the history; we do not own history. Rather, the author would say the idea of adaptive reuse is actually concerned with creative possibilities of handling historic properties in contemporary

⁷⁹ *Oxford English Dictionary*, 2nd ed., s.v. “Architect.”

⁸⁰ *Oxford English Dictionary*, 2nd ed., s.v. “Inventor.”

⁸¹ *Oxford English Dictionary*, 2nd ed., s.v. “Artist.”

methodology, designing the new addition of adaptive reuse as a successive development of the past. This idea is akin to Harries' definition of the word "community's ethos," in which the newly injected functions to the historic building in the contemporary should inform the "spirits that preside over their activities" (see Chapter 3.6). Thus, knowing the creative possibilities or typological design strategies in adaptive reuse is imperative for architects and designers, as these possibilities facilitate the architects and designers in their analytical and critical thinking when they go about adaptive reuse, helping them to analyze the design of a building according to a set of particular group rather than individual oddity. Not only do the architects and designers need to comprehend the history of the building per se and its contributions to the past and contemporary societies through critical and analytical thinking, but they also need to understand the historic nature of the building and amplify this nature into contemporary society by incorporating the creative possibilities.

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⁸² Françoise Astorg Bollack, foreword to *Old Buildings New Forms: New Directions in Architectural Transformation*, by Kenneth Frampton (New York: The Monacelli Press, 2013), 6-7.

4.2.1 Insertion

In some adaptive reuse projects, a new fabric is *inserted* to celebrate the historic building. In this case, the new fabric, either a space or building, usually borrows the historic building as a shell but the end results depends equally on both parties. For instance, the new fabric may enhance structural stability while nestling itself in the old, crumbling historic building. As a contemporary participant, the new piece possesses its own brand new identity different from the historical building. With its brand new identity, the new addition creates its own world and brings pleasure spatial journey, as well as emotional impact to the users by highlighting its contrasting relation to the historic building. What is interesting about “insertion” is that there is two different stories embedded under one roof.

Designed by Steven Holl, the New York University Philosophy Department in Manhattan showcases a design strategy with the insertion of a staircase with perforated metal railing (fig. 35) and a skylighting. This example conspicuously demonstrates the interesting notion of “two stories under one roof” illustrated above. On the one hand, the façade of the nineteenth century six-story building (fig. 29) reminds people that it was a warehouse, or at least that is how the public recognizes and remembers it. On the other hand, the interior behind the old façade is designated as a Philosophy Department, which carries a wholly different function or story from what its façade tells.

Mostly because of the dramatic contrast between the two contradictory aspects under one roof, the “insertion” is usually treated as a conceptual art rather than mere architecture that usually concerns choice of materials and forms. For instance, for the strategy of “insertion,” the driving force of the new piece can be generated from the idea

of the passage of time, the renewed relationship between the new and old, and the fundamental form that brings meaning to the old and vice versa, among other ideas.⁸³

4.2.2 Parasite

The term “parasite” is a biological term that refers to “an organism that lives on, in, or with an organism of another species” for the sake of acquiring food, borrowing shelter or retrieving benefits.⁸⁴ A similar idea is applicable in architectural interventions, in particular, adaptive reuse. As one of those strategies, “parasite” is the process of injecting a new addition to the historic building by attaching the new to either the side or top of the old, allowing the new to be dependent on the historic building for structural support. Although “parasite” involves a new addition, it is utterly different from “insertion.” For the former, the new addition is attached externally whereas the new addition of the latter is added internally. The “parasite” is a strategy that makes adaptive reuse conspicuous and easily comprehensible, owing to the heightened juxtaposition and interplay between the new addition and old structure, which can be differentiated by color, materials, forms, and construction methods. Despite the contradictory appearance, the “parasite” is a design strategy that involves internal logic in different aspects, such as geological ideas, space, time, and memory.⁸⁵

Tate Modern in the United Kingdom (fig. 36), designed by Herzog and de Meuron, is a salient example for “parasite” in terms of geological ideas, treating the historic building itself as “ground.” The architects explain their design intention for having the light beam glass structure sitting on top of the former Bankside power station

⁸³ Ibid., 23-25.

⁸⁴ *Oxford English Dictionary*, 2nd ed., s.v. “Parasite.”

⁸⁵ Bollack, *Old Buildings New Forms*, 65-66.

(fig. 37) serves not only practical means, but also conveys the ethical meaning of life.

According to Jacques Herzog, “Whatever comes on top – the tower of the expansion project – will be rooted in this history. Whatever we see in the future above ground will have grown out of this other world beneath, and wound its way upwards.”⁸⁶

4.2.3 Wrap

“Wrap” is the strategy that envelops the historic building or structure with a new veil. The overhead new veil usually performs like an additional roof to protect the fragile historic building or structure from climatic impact. Rather than adding a new addition of space or building like “insertion” and “parasite,” this strategy focuses on the addition of a roof as an enclosure to the historic building. Thus, at first glance, this addition that does not provide supplementary volumes seems to be unnecessary. The interesting point of “wrap” nevertheless reveals itself in the “in-between” room in the middle of the new veil and historic building. This “in-between” renders itself as a new form of space and subsequently draws tension between the new veil and historic building aesthetically and emotionally. Additionally, this strategy also introduces a renewal of the past that gears toward the future; the familiarity of the past is wrapped around with the modernity of a new veil.

The Le Fresnoy National Studio for Contemporary Art in France, which is the former 1920s leisure park, is an example for “wrap.” The former leisure park was then taken over by Bernard Tschumi, a Swiss architect, writer, and educator associated with deconstructivism, for redevelopment. When Tschumi came to this project in 1991, the historic structure was not in a good condition in either structural or waterproofing

⁸⁶ Jacques Herzog, “Message from below,” in *Architect’s Journal* 236, no. 2 (2012): 54-55.

systems. Tschumi nevertheless refused to demolish any parts from the historic structure, as every piece of them possesses meaning in the past and present. He then came up with the idea of incorporating an overhanging roof as an umbrella to wrap around and protect the historic building whereas the “in-between” is filled with the mechanical infrastructure and staircases for circulation (fig. 38).⁸⁷

4.2.4 Juxtaposition

Just as other strategies, the “juxtaposition” invites the participation of a new addition, but rather is accomplished by having the new addition standing next to the historic building to create a drastic contrast between the new and old aspects. At this point, the apartness of the two contradictory aspects is apparent, in which they do not engage with each other in an obvious dialogue. The dialogue or connection between the two aspects rather performs in a pragmatic and programmatic way and the entrance is often accessed through the historic building. Not only their physical bodies are separated in a kind of quiet aloofness, but also the differences of their appearance are legible, which can be distinguished by distinctive materials, colors, forms, texture, and volume abstraction, etc. Despite the differing appearance and the physical distance in between, the “juxtapositions” helps the two contradictory aspects to add value to each other.⁸⁸

The Jewish Museum in Berlin (fig. 39) is a representative example for the “juxtapositions.” While the main entrance of the Old Baroque Building is the only accessibility, rather than having an obvious mediator, Libeskind chose to connect his zig-zag configuration to the old building through an underground vertical staircase and horizontal corridor (fig. 40). As one is descending to the basement, the depth of the

⁸⁷ Bollack, *Old Buildings New Forms*, 113-119.

⁸⁸ *Ibid.*, 141-142.

foundation of the Old Baroque Building indicates the notion of going deep down to the undercurrents and finding out more about the components that support the structure of the society. This descending process represents Libeskind's method of connecting the two contradictory aspects vertically. The horizontal dimension is represented in the process of proceeding from the old building to the beginning of the extended building.⁸⁹ The "juxtaposition" strategy applied by Libeskind inevitably asks us to consider the relationship between the new addition and old fabric, as well as the values that they add to enhance each other.

4.2.5 Weaving

The strategy of "weaving" is akin to woven fabric – in particular, mending the torn fabric with appropriate fibers. This strategy requires new addition like other strategies but the new addition is woven in and out of the historic building. Thus, the seams or boundaries between the addition and historic building are blurred and unrecognizable. Before dealing with the new addition, the architects usually study, evaluate, and edit the remnants of the historic buildings. These works include leaving some of the existing elements intact, foregrounding some significant features, and eliminating unnecessary or disrepair elements. When the new layers are added, it becomes seemingly impossible to render the new additions as independent oddities or vice versa, as both new and old layers are interwoven intricately together that they hardly survive alone. With the strategy of weaving, it allows the public to enjoy and celebrate the ruins with a contemporary view instead of treating them as a distant object.⁹⁰

⁸⁹ Daniel Libeskind and Hélène Binet, "Extension II (Exile)," in *Jewish Museum, Berlin* (Amsterdam: G+B Arts International, 1999), 28-29.

⁹⁰ Bollack, *Old Buildings New Forms*, 179-181.

In 2009, the Neues Museum in Berlin (fig. 41) designed and completed by David Chipperfield, a British architect, presents itself as a striking example for the design strategy of weaving. Construction completed in 1855 and opened in 1930, the museum did not last longer than nine years due to World War II. The once beautifully designed muscular building was left abandoned and it bore scars from the war – the northwest wing (fig. 42), the staircase hall (fig. 43), and the semicircular apse in the Greek courtyard, to name a few. Chipperfield embarked on the ruins by weaving the new materials into the ruins – repairing, bringing the ruins to completion, or adding volume to the ruins. For instance, the apse in the Greek courtyard was reconstructed with a different material in order to highlight the different layers within the building as a form of collective work across time (fig. 44).⁹¹

In this chapter, we have seen different design strategies of adaptive reuse – “insertion,” “parasite,” “wrap,” “juxtaposition,” and “weaving.” Although each of them requires a new addition, there are apparent differences between these strategies. For “insertion,” the new fabric injected can be either a space or building, considering the building as a conceptual art rather than mere architecture. In comparison to “insertion,” the new addition for “parasite” is attached to either the top or side of the historic building by involving internal logic. “Wrap” is a strategy that used to provide the historic building with an additional new roof, and this strategy is applied to protect a fragile historic building. While “juxtaposition” is to having a new addition standing next to the historic building to create a drastic contrast, “weaving” is a strategy where the boundaries

⁹¹ Ibid., 212-215.

between the new and old fabric are blurred by weaving the new materials in and out of the historic building.

CHAPTER FIVE: TYPES OF ADAPTIVE REUSE

In the following, I have classified adaptive reuse, in terms of the relationship between function and ethical quality, into three different kinds: (1) Reuse for commercial purposes; (2) Reuse for commercial, educational, and memorial purposes; and (3) Reuse for educational and memorial purposes.

5.1 Reuse for Commercial Purposes

Reuse for commercial purposes inexorably has to do with monetary value. This type of adaptive reuse demonstrates that the alteration made to the architectural design of the historic building aims to be aesthetically and practically appropriate to run new functions. This newly addressed function, nevertheless, does not fundamentally reflect the original purpose of the old building but allows profit-making practices. In *How Buildings Learn*, again, Brand proclaims this kind of building as “Form follows funding.”⁹² In such circumstance, the ethical quality of adaptive reuse is seemingly forsaken and the building itself is treated as a property rather than architecture to roll in money based on the theory that money attracts money. Examples of this type of adaptive reuse will be discussed explicitly in the following chapter.

5.2 Reuse for Commercial and Educational/Memorial Purposes

The second type, adaptive reuse for commercial and educational or memorial purposes, potentially seems to compensate for the shortfalls of the previous kind. Just as the first one, it allows alterations to be made on the architectural design of the building

⁹² Stewart Brand, *How Buildings Learn* (New York, NY: Viking, 1994), 5.

yet welcomes multiple functions to be fitted into the old building at the same time. The only difference is, among the multiple functions, there must be a function that renders the ethical quality of adaptive reuse to educate the users about the original building. On the other hand, another function is introduced to trigger the money flow, which might be used to sustain the continuity and longevity of the building itself. Arguably, this kind of adaptive reuse painstakingly performs its role well as a historic precedent in the contemporary society. This is because of its abilities to mandate us to view the past with contemporary eyes rather than falling into the unknown nostalgia of the past. For instance, a significant nineteenth-century agricultural factory is converted into a modern office tower while part of the building remains as a museum of the old agricultural factory. In such circumstances, the staff that work within the modern office tower inevitably have to encounter the museum as they come to work each day. This could help the staff to reflect on the fact that what they currently possess all stems from the contribution of the old agricultural factory to the city in its heyday. The following chapter provides and explains this type of adaptive reuse through two different architectural cases.

5.3 Reuse for Educational/Memorial Purposes

The third type, adaptive reuse for educational or memorial, irrefutably has the least to do with monetary value. Rather than serve as a profit-making tool, this kind of adaptive reuse attempts to restore or conserve the originality of the historic building based on the existing archives, and afterwards wholly transform the building into an educational or memorial tool like a museum. This strenuous attempt, which is usually advocated by the preservationists, does not only endeavor to uncover the “hidden

treasures” and narratives of the past to the contemporary, but also acknowledge and anticipates a prescription and inscription for the future and more generations to come.⁹³ In other words, this kind of adaptive reuse is just as transforming a historic building into a vibrant museum such as a three-dimensional architectural history textbook, which aides the society to retrieve the collective memory about the city per se. However, the frequency of people’s interaction with museums may differ, as they do not visit museums as often as commercial entities. At this point, this type of adaptive reuse may gradually became a dead landmarks, without having the opportunity to tell their stories about how they forged the development of the cities in their heyday.

⁹³ Ibid., 108.

CHAPTER SIX: THE ADAPTIVE REUSE PROCESS: SITE & DESIGN ANALYSIS

This section brings in a few architectural cases in order to further discuss the three kinds of adaptive reuse, which are grouped according to the relationship between functional and ethical quality of a building (see Chapter 5). By analyzing each of the cases respectively, it allows us to visualize why a certain of adaptive reuse does not work and why another does in response to historic preservation, which establishes “internal connection” between the public users and the reused building per se.

6.1 Reuse for Commercial Purposes

6.1.1 From the former Ames Family Agricultural Company (1889-1950s) to the Ames Hotel (2009-present)

The Ames Hotel, Boston, Massachusetts by David Rockwell originally was a former office building. It applies the design strategy of “insertion,” and is an example of reuse for commercial purpose. For this case, adaptive reuse is considered beneficial for the developers, in which the monetary value spent is low and allow them to generate a new business. The developers thought this newly generated business would subsequently become a travellers’ attraction to anchor money. The amount spent for renovation might be higher than a new construction (see Chapter 3.5), but the “insertion” strategy applied in this case helped to cut down the expenses for demolition. Other than monetary value, the developers are able to embark on the new business in a shorter time, which is the most influential aspect for developers to use money effectively. In this project, other than satisfying the developers’ needs within the budget with a radical alteration, the architect David Rockwell made an effort in keeping some of the structure from the existing

historic building and creating a new experience to enhance the atmosphere of the past within the historic building.

The Ames Building is a significant building that is worth being discussed in this work. Originally constructed as an office building in 1889, the thirteen-story Ames Building (fig. 45) was the first skyscraper as well as its first elevator-dependent building in Boston, Massachusetts. Designed by Shepley, Rutan, and Coolidge, the Ames Building was considered as an unusual design for its time owing to its revival inspiration from the Romanesque architecture, which ranged from the sixth to the tenth-century.⁹⁴ The characteristics of Romanesque architecture are evidently presented on the Ames Building with the semi-circular arches surmounted on top of the openings, which is adorned with intricate stone carvings (fig. 46). Like a guardian that stood elegantly and watched over the city, The Ames Building served as Boston's tallest skyscraper for over two decades but unfortunately was sold by the Ames family in the 1950s. The building was added to the National Register of Historic Places in 1974 due to its significance in shaping the development of Boston at the time. It was not until early 2007; when the New Jersey-based Normandy Real Estate Partners, teamed with the Morgans Hotel Group, has taken over the property and developed it into a luxurious boutique hotel.⁹⁵

The architect who undertook this project, David Rockwell, an American architect and designer, understood that Morgans Hotel Group has been known for its leading fashion in design. In the act of reflecting the property owner's branding as well as

⁹⁴ "Ames Building, Office Building," Google Ames Building, accessed September 29, 2014, <http://www.shepleybulfinc.com/project/ames-building/LM9/>.

⁹⁵ Christine Perez, "Boston's Historic Ames Building will Become Boutique Hotel," *National Real Estate Investor*, July 1, 2007, accessed September 28, 2014, <http://nreionline.com/commentary/bostons-historic-ames-building-will-become-boutique-hotel>.

showing respect to this spectacular building, Rockwell aimed to create an interior space that mirrored the impeccably detailed and beautifully carved exterior of the building (fig. 47). Rather than creating an interior space that solely mimicked the exterior, Rockwell integrated a sense of sleek modern seductive design into the interior (fig. 48 & 49) to create a contrasting experience physically, visually, and mentally.⁹⁶ This kind of contrasting experience helps to engender a sense of transformation – from the past to the present – as a continuous and holistic experience of the city of Boston and the Ames Building, as well as the users per se.

Rockwell, however, did not eliminate the existing and obsolete fabrics within the interior, but rather repackaged and re-introduced them in a contemporary way. For instance, he restored the mosaic ceiling tiles at the lobby hall, and installed a metal chandelier against it. As shown in figure 50, composed of 12,000 metalized discs, the flexibility of the metal chandelier reacts according to the wind movement as the lobby door opens and glints at the guests elegantly, which provokes a welcoming and special interior environment that respects the historical building per se and the guests.⁹⁷ Other than the painstaking effort undertaken at the lobby, Rockwell showed respect to the historical building by retaining and restoring the existing fireplace at the apartment bedroom and the Romanesque arches that sit on top of the openings (fig. 51).

⁹⁶ *David Rockwell on designing The Ames Hotel in Boston*, directed by Chuck and Michelle Clifton and Mike and Sonja Cilligan (1970; New York: Hudson River Film and Video), Video Clip.

⁹⁷ Alicita Rodriguez, “Mirror Chandelier by Studio Roso Lights up the Lobby at Boston’s Ames Hotel,” *3rings Designer Pages Media*, March 9, 2010, accessed October 7, 2014, <http://media.designerpages.com/3rings/2010/03/09/mirror-chandelier-by-studio-roso-lights-up-the-lobby-at-bostons-ames-hotel/>.

Instead of using architectural elements, such as columns, beams or staircases, Rockwell inevitably made good use of the details to create and emphasize a connection between the past and the present. This kind of tender treatment provoked by the minute details can be interpreted as a gentle reminder of the past to the contemporary – it [the past] does not strongly assert for its existence in the contemporary society, just as the heavy architectural element, but rather reverberates with its soundless presence.

Another interesting detail that Rockwell added to the Ames Hotel is the Pepper's ghost that appears at the white gloss frame mirror, which the guests encounter as they come out from the elevator (fig. 52). Pepper's ghost (fig. 53) is a combined novel form of magical illusion invented by the English engineer, Henry Dircks in 1862 as a kind of phantasmagorical performance. The British scientist and inventor, John Henry Pepper, then adapted this magical illusion to the theatre stage and settings. This effect was shown during a scene of Charles Dickens' Christmas tale, *The Haunted Man and The Ghost's Bargain*, where a man called Redlaw was forced to confront with the terrifying aftermath because of his eagerness to be free of his past.⁹⁸

Applying the same theory into the Ames Hotel, Rockwell created a similar optical illusion of a classical chandelier in the center of the mirror is reminiscent of what might have been in the Ames Building in 1889. When the guests come out from the elevator, they are able to see the amber of the chandelier but it will gradually disappear as they move away from the origin point. To add a little piece of criticism, this concept is merited by applying an analogy with our human experience and existence over time. Standing at the origin point to view the amber of the chandelier light is just as how we perceive the

⁹⁸ Helen Groth, "Reading Victorian Illusions" Dickens's *Haunted Man* and Dr. Pepper's 'Ghost', in *Victorian Studies*, vol. 50, no. 1 (September 2007): 43-65.

past in an imperceptible distance. We can obviously “see” the past from a certain distance [length of period], but it will fade and vanish inch-by-inch as we go further. However, the optical illusion here appears as a reminder of the past to the contemporary society about how far we had come since the nineteenth-century rather than a penalty for escaping from the past as we saw from the pepper’s ghost.

Rockwell has successfully implied a certain amount of historical value to the guests who stop by the Ames Hotel and it certainly has a lot to do with the way he tackled the significant role of the details. It is coherent that the guests will only be able to appreciate the “hidden treasures” through the treatments of the details. This is merely because things are broken down into the human scale and eye level, which are easily digested and manifested by our visual and sensual experiences. To discuss the other side of criticism, this historical building, however, was inspired by the Romanesque architecture and erected in the late nineteenth-century, which was the period of classical revival. The designs elements, unfortunately, oscillates only between the revival of Romanesque and the contemporary whereas the patina of the nineteenth-century, which is crucial to tell its real age and identity, has been forsaken. There should be a way to reveal the different layers of the history within the building rather than cancelling the in-between period. Additionally, the Ames Hotel illustrates that this kind of adaptive reuse, which is reused for commercial purposes, only targets on paid customers who intend to visit and acquire services, rather than consider learning about the history of Boston.

6.1.2 From the former Gasometers of Vienna (1899-1986) to the Historical City Center (2000-present)

The Gasometers Historic City Center in Vienna converted from the former Gasometers of Vienna is another architectural case of the similar type, adaptive reuse for commercial purposes), and a mixed-strategy of “insertion” and “parasite.” For this particular case, adaptive reuse is considered beneficial for the city of Vienna, in which the obsolete gigantic monuments that were once significant to the growth of the city are preserved and brought alive again with new functions for the contemporary society. In addition to the historic preservation aspect, this case renders a new direction of urban planning for the city, which halts developments that disregard the past. The Gasometers also serve as a social center that allow the citizens of Vienna to gather and appreciate the remnants designed by the architects that reform the city of today.

Consisting of four cylindrical and gargantuan structures, the gasometers in Vienna (fig. 54) were originally designed by a German engineer, Schimming in 1896, and built in 1899. The historical gasometers irrefutably once merited their heyday, as they were considered the largest in Europe when they were built and consequently listed as one of the salient exemplars of industrial architecture by the country’s heritage ministry in 1981. Other than their reputation gained in the industrial architecture, these gigantic historical monuments are significant to the city of Vienna, in terms of their roles in shaping the transportation system of the city in the late nineteenth to twentieth-century. The gasometers churned out fossil-fueled energy to supply and support the transportation system, as well as the urban fabric in Vienna for nearly a century but it did not endure later than 1970, when Vienna substituted fossil-fueled energy with natural gas between

1970-1978. Thus, the gasometers were forsaken and became obsolete whereas the technical equipment within the cylindrical structures were dismantled leaving the classical masonry facades.⁹⁹ Although left abandoned, the muscular facades were left intact owing to their significance of the city's growth and identity. This architectural case is important to be discussed here because it has become an inspiring tale of innovative urban design, which forged a strong sense of community – interweaving history with mixed-use community rich in entertainment, offices, retail spaces, residences, and etc. Owing to its characteristics and the aftermath effects brought to the city development, this project has been studied and written about by academic scholars in different fields, which including psychology, journalism, architecture, and urban planning.¹⁰⁰

After shutting down for about a decade, there was an increase in awareness to preserve and make good use of the abandoned gasometers, as they stood elegantly and vividly as a symbol for the infrastructure development of the City of Vienna. The four industrial monuments have been revitalized by converting them into a social-housing (fig. 55) that composed of 600 housing units and integrated with a number of cross-programs, such as an event hall that holds 3500 people, a cinemacenter, a shopping mall, dormitories for a nearby university, Vienna's municipal archive, offices of telecommunication companies, a kindergarten, schools, as well as medical and other facilities. Each of the tanks were undertaken by different developers and renowned architects, such as Jean Nouvel, Coop Himmelb(l)au, Manfred Wehdorn, and Wilhelm

⁹⁹ “History of the Gasometers,” Google Wiener Gasometer, accessed October 9, 2014, <http://www.wiener-gasometer.at/en/history>.

¹⁰⁰ Diane Pham, “Gigantic Coal Gasometers Transformed into Thriving Communities in Vienna,” Google Gasometers in Vienna, last modified November 11, 2013, accessed October 18, 2014, <http://inhabitat.com/gigantic-coal-gasometers-transformed-into-thriving-communities/2/>.

Holzbauer.¹⁰¹ This study mainly focuses on the project, “Gasometer B,” by Coop Himmelb(l)Au.

The architects applied different paths and approaches while focusing on three themes that characterizes the architecture and cityscape of Vienna. The first theme is “residential building,” which has become the spine of urban development during the last decade and is still characterizing the development of the city nowadays. The second theme is the “protection of monument,” in which to show how the Viennese people treat monuments are not solely as sacrosanct buildings but as a vital fabric in the development of the city. The last theme is “the debate on the historical center in terms of urban planning,” the Viennese people believe that the tension between the historical fabric of the city with new programmatic developments helps them to contemplate what is appropriate for the future rather than blindly civilizing the City of Vienna with contemporary buildings.¹⁰²

The last theme, “the debate on the historical center in terms of urban planning,” is displayed even bold with the shield extension (fig. 56 & 57) by Coop Himmelb(l)Au to Gasometer B. The shield does not only highlight the debate programmatically, but also rather perform as a perceptible symbol of a new form of content that happens in the obsolete based on its distinctive construction methods and materials. This is totally plain and direct enough to be interpreted by the citizens of Vienna or even the tourists – as one only looks at the appearance of the design, we are able to recognize that there must be

¹⁰¹ “The Architecture of the Gasometers,” Google Wiener Gasometer, accessed October 9, 2014, <http://www.wiener-gasometer.at/en/history>.

¹⁰² “Apartment Building Gasometer: Coop Himmelb(l)Au, Jean Nouvel, Manfred Wehdorn, Wilhelm Holzbauer, Vienna, Austria,” in *GA Document* no. 69 (April, 2002): 68-79.

some sort of communications going on between an old and new fabric. According to Coop Himmelb(l)au, authentic architecture is the contrast between the new and old that helps to reflect the occurrence of both history and contemporary reality concurrently.¹⁰³

The rationale behind Coop Himmelb(l)au's thinking is coherent because we do not live only in our own time – we evolve and learn from history; without the past we are just living in nowhere. In respect to that, architecture is one of the archives that document the entire process from the past to the present. Thus, in architectural design, we have to include the past to solidify and enable the realization of what we own in the contemporary society. The form, however, appears to be peculiar – it is a slim and tilted tower that appears to be seemingly bound and shaky (fig. 58). It should actually imply anything beyond the form and its programs. As compared to the shield, on the one hand, the gasometer, which is made of masonry, appears to be colossal in size, sturdy in its cylindrical form, and muscular in its material. On the other hand, the shield appears to be more fragile like a parasite that leans on the obsolete gasometer. It seems to indicate the importance and solidity of what happened in the past and its role to shape the contemporary reality. In other words, what we own in the contemporary all depends on what was shaped in the past.

The degree of the shakiness of the shield, however, is varied according to different orientations and thus different perspectives could be formed. From the east elevation (fig. 59), the shield is just as what had been described earlier – it is slanted and wavy in a way that inclines toward the gasometer. Nonetheless, the shield starts to

¹⁰³ James Russell, "Coop Himm(b)l)au Challenges preservation Orthodoxy in the Gasometer B Project by Making Stolid Former Fuel Tanks Dance," in *Architectural Record* 189, no. 11 (November 2011): 108-115.

deviate from the obsolete as it reaches the highest point of the gasometers. This supports the point as illustrated above that the contemporary society is counting on and inspired from the past, yet it is gradually straying away from the past to move towards the future at the same time. On the other hand, when we look at the north elevation (fig. 60), the width of the shield is just as the same size as the gasometer and it is so much taller than the gasometer that we barely see the existence of the gasometer – the gasometer seems to have been gulped in by the shield. In this case, it supports the points as illustrated above too, in which the past is an inclusion of the contemporary society.

The inference made above is based on how the design of the gasometers has hindered any up-to-date architectural tendencies in Vienna. This is mainly because the massive gasometers and the effort asserted are extremely conspicuous to stand as a monumental reminder of the city at all times to contemplate what the city needs in its future.¹⁰⁴ To examine this project in a psychological aspect, however, should the design be too oppressive for the users? It is important to study an architectural case in its psychological aspect, as a building is meant to be built for human beings; it has the capacity to influence how the users feel within or outside of the building both physically and mentally.

The rigidity of the gasometers is solid to affirm its significance in the past and present; yet, it might also be an issue that leads any psychological impact to the users. On the one hand, the masonry façade of the gasometers performs as a monumental reminder to the Viennese people. On the other hand, the façade acts as a “city gate” that delineates the inside from the outside or vice versa. In other words, the users inside are

¹⁰⁴ “Apartment Building Gasometer,” 70.

“imprisoned” within the building whereas the public outside is only able to see a rigid structure without knowing what is going on inside the building. Thus, there is no communication between the inside and outside of the gasometers. In this case, the users are isolated from the outside world and vice versa, which would weaken the social activities among all the Viennese people in the city. To perform holistically, the gasometers should not be designed in a way that forges a sense of community only within the so-called “social-housing.” Rather, the architects of the gasometers should have also anticipated the overall public. For instance, if the masonry façade of the gasometers had been designed by dissecting each of the tanks vertically, it would have allowed the public outside to perceive the on-going activities inside the building. By revealing a certain portion of the interior to the outside world, the gasometers would have evoked the curiosity of the public and enticed more people to visit the reused gasometers, which subsequently encourages the users within the building to interact with those who are not living or working in the building. In addition to visual and social interaction, dissecting the gasometers would have allowed more daylight to penetrate into the building – making it a healthier and interactive building, not only between the past and present form but also the people inside and outside of the reused gasometers. Thus, this example features the downside of adaptive reuse project for commercial purposes, in which the overall building tends to be designed in the way that focuses more on the benefits of the users, such as the residents and the people who work in the building, rather than the public in the city of Vienna, as well as how they learn history about the city. This statement is observed from the effectiveness and convenience of the building, which is done by facilitating the residents with many retails and other services within the social-housing

buildings, while little to no attention is paid on educating the public about the history of the building per se, as well as how it forged the city today.

6.2 Reuse for Commercial and Educational/Memorial Purposes

6.2.1 From the former Charles Street Jail (1851-1990) to the Liberty Hotel (2007-present)

Converted from the former Charles Street Jail, the Liberty Hotel located in Boston, Massachusetts represents the second type of adaptive reuse (i.e. reuse for commercial and educational or memorial purposes) with a mixed-strategy of “insertions” and “juxtapositions.” By reusing for commercial and educational or memorial purposes, adaptive reuse for this specific architectural case is considered favorable, owing to its capacity that performs as part hotel and part museum. As compared to the Ames Hotel, which is merely reused for commercial purposes, the Liberty Hotel, as a succinct example of reuse for commercial and educational or memorial purposes, does not only anchor money, but also show reverence to the past concurrently and helps the hotel guests to learn about the history of the building per se.

This capacity is an apparent evidence of the painstaking efforts devoted by the architects and designers, as well as the developers, through juxtapositions of the past and present. The first juxtaposition is done with the overall purpose of the building, in which the former jail that used to be a dreadful environment for the notorious inmates to be penalized has now become a heavenly hotel that people are eager to enter for compensation and to be treated as guests. The second juxtaposition is apparent in the space planning of the interior layout, in that the new functions of specific spaces are juxtaposed with the old ones.

Owing to the efforts elaborated above, the Liberty Hotel is a significant award-winning architectural case that is worthy of discussion in this work. One of its awards is inaugurated by the Victorian Society in America, the “2008 Preservation Award” to recognize its notable effort in the protection or preservation of the Victorian past. Other awards include: the Massachusetts Historical Commission Preservation Award for Adaptive Reuse; the Boston Preservation Alliance Preservation Achievement Award; and the Masonry Construction Magazine, Project of the Year Award.¹⁰⁵

To examine the first juxtaposition, it is vital to have an in-depth understanding of what the building was in the past and what it is now. The original purpose of The Liberty Hotel was the Charles Street Jail (fig. 61 & 62), a jail that housed some of Boston’s most notorious criminals in the nineteenth century. The Charles Street Jail was designed by architect Gridley James Fox Bryant in collaboration with Rev. Louis Dwight and completed in 1851. This project had become noticeable as both of the individuals involved were important figures in Boston of the time – Bryant was widely known and considered as one of the most famous architect in Boston, while Dwight was a Yale-educated penologist, who shaped his interest in and advocacy for prison reform. Two of them intended to design a brand new design that would treat the prisoners with some respect. For instance, they designed an atrium for each cell, which allowed the prisoners to gaze out and look through the three-story arched windows that were meant to help the prisoners recharge with sufficient daylight and fresh air.

In 1973, the jail, unfortunately, did not perform as well as expected. The prisoners raised a rebellion for its poor living conditions due to its over-crowding population and

¹⁰⁵ “The Hotel – Awards,” Google The Liberty Hotel Boston, accessed October 26, 2014, http://www.libertyhotel.com/the_hotel/awards.html.

deterioration, including inadequate plumbing, a quirky electrical system, and uneven heating and cooling. In addition to the technical issues, the design of the jail was declared unfit and against the constitutional rights of the inmates. Thus, the prisoners were gradually moved to the new Suffolk County Jail and the last prisoners were moved in 1990. The Charles Street Jail was abandoned and listed on the National Register of Historical Places. As soon as the jail was forsaken, the Massachusetts General Hospital began a proposal to acquire the reuse of the building for the sake of preserving its significant elements.¹⁰⁶

After 10 years of planning, in 2001, the decision eventually has been made to transform the former jail into a luxury hotel, the current Liberty Hotel. This is how the juxtaposition of the building's overall purpose occurs. Ann Beha Architects (ABA) was commissioned to undertake this adaptive reuse project. As a preservation architectural firm, during the design process, ABA referred to Bryant's original architectural drawings to ensure no alterations were made to amend Bryant's creative vision for the cruciform-shaped building. The original architectural drawings by Bryant (fig. 63) visibly informs a number of dramatic characteristics of the Renaissance and Romanesque architecture. For instance, the building was designed with a symmetrical plan with an octagonal central building that was flanked with four wings; each wing was installed with massive three-story arched windows that maximize daylight (fig. 64). In addition to the Renaissance and Romanesque forms found, ABA found that Bryant had initially installed a cupola to be installed on top of the jail rotunda, which help to further light and promote better air

¹⁰⁶ "The Hotel – History," Google The Liberty Hotel Boston, accessed October 26, 2014, http://www.libertyhotel.com/the_hotel/history.html.

ventilation (fig. 65). The cupola that once served as the focal point was unfortunately taken down in 1949 in order to save money.

After a thorough examination of the original architectural drawings by Bryant, ABA went about restoring its exterior and interior. The way ABA implemented his design has conspicuously highlighted the juxtaposition between the changing functions of the building, from a former jail to the Liberty Hotel today. For instance, the first and fundamental step included rebuilding and reinstalling the removed cupola (fig. 66 & 67). Originally intended for the well being of the inmates, the reinstalled cupola today adds a sense of luxury to the hotel guests. Other than a number of restoration works, the building's granite exterior that was considered as one of the best examples of "Boston's Granite Style" of the mid-nineteenth-century architecture remains unchanged, as well as the expansive interior. Another conspicuous juxtaposition is reflected in the former jail's central atrium, which is beautifully preserved and resurrected to form the present core of the hotel as public spaces, such as a reception lobby, restaurants and bars, and a grand ballroom, etc.¹⁰⁷ Through the transformation made by ABA, the dreadful jail known for a place for penalization has resurrected itself with a brand new identity where people are eager to go and pay to be well treated.

The second juxtaposition between the former jail and the current luxurious hotel in terms of the space planning is apparent when the traces from the past are still perceptible in the restored hotel. For instance, the structure of the three-story wrought-iron railing that we see in the current reception lobby (fig. 68) is an example that is greatly preserved from the former jail's central atrium (fig. 69). These wrought-iron

¹⁰⁷ "The Liberty Hotel," Google Ann Beha Architects, accessed on October 27, 2014, <http://www.annbeha.com/the-liberty-hotel>.

railings were used to be the catwalks, on which the guards stood and watched over the prisoners to make sure they did not try to break out. These catwalks have now been revitalized as platforms with different activities, which allows the hotel guests to overlook the volumetric space of the reception lobby as well as to promote interactions. It is apparent that the idea of “to see and be seen” is a result of juxtaposition between the past and present within this interior space. In the past, the visual interaction here served as an act of surveillance, in which the subjects being watched might feel refusal. Yet, the visual connection today has become a form that promotes social interactions where people are eager to reveal themselves to others.

The corridor next to the reception desks in the lobby is another example of juxtaposition of the past and present in terms of the space planning. This corridor not only performs as the only path of access to the hotel rooms, but also serves as a Liberty Historic Center (fig. 70). This long and narrow corridor was one of the main circulation systems, which provide direct and close view into the individual cells in the former jail (fig. 71). It is interesting that this corridor has now become a historic center to educate the hotel guests about the story of the former Charles Street Jails. By imposing the historic center directly to the place, where the inmates spent the most time in addition to the powerful wrought-iron door cells, it seems to be easier for the hotel guests to relate themselves to the scenes of the time – how it looked when it was a jail. Reading the descriptive history and taking a glance at the well-preserved archives, the story of the former jail is possible to be rendered in one’s mind three-dimensionally and vividly.

A third interesting example of the juxtaposition of past and present in terms of the space planning is demonstrated by the former yard. As shown in figure 72, the former

yard was once designated as a place where the inmates carried out their daily exercises. With ABA's delicate attempt, this large empty spot is now a private landscape courtyard that performs like a hidden garden, which is only accessible to the hotel's guests (fig. 73).¹⁰⁸ Comparing the exercise yard to the garden, they seem to be a totally different component. Yet, to examine their relationship closer, both of these spaces suggest an escapism for the users, in which the inmates could release from the rigid, unfavorable cells once in a while to breathe a sigh of relief, whereby the hotel guests can get out from the highly active public spaces in the hotel to slow down their pace a little bit.

In addition to the effort made to the existing building, as a hospitality architectural design, a new sixteen-story structure (fig. 74 & 75) was added to honor the building's rich history, as well as to endow the former building with a contemporary life that bears sufficient guests room to maximize the profit of the hotel. Although the traces of the former jail flow throughout the entire core of the hotel, it has come to a complete stop at the new addition that performs as the guest rooms (fig. 76). In other words, the guest rooms appear to be totally new spaces that are detached from the core of the hotel without carrying the numerous significant elements of the former jail.

To contemplate the psychological aspect of a space, it is acceptable that the traces of the former jail do not invade the private and comfort zone of the guests, which might create a certain impact or trauma on the guests. However, what the addition looks like now is just like a complete disconnection from the former, restored building. Should there be a method to strike a balance and implement the traces of the past without disturbing the guests' mental and psychological state? Perhaps this could be done by the

¹⁰⁸ "The Hotel – History," Google The Liberty Hotel Boston, accessed December 14, 2014, http://www.libertyhotel.com/the_hotel/history.html

journey within the interior space. For instance, the traces of the former jail should be embedded into the hotel according to the flow of the journey within the interior space. The guests were to find the strong connection with the former jail in the core of the hotel, which is the public space. However, this kind of connection was to gradually fade as the guests were straying away from the crowded place and approaching their private spaces. This implies the guests, still, should be exposed to the traces of the former jail during the journey back to their rooms. For instance, some of the significant elements of the existing fabric should be replicated and installed throughout the corridors at each floor of the new addition. Thus, when the guests walk through the corridors before stepping into their rooms, this replication from the past would reverberate with the guests about the original purpose of the building. These gradually fading traces would help to soften the disconnection between the former building and the new addition, as well as create a different kind of experience at the same time.

Despite the fact that the new addition does not illustrate the continuing traces of the former jail, the Liberty Hotel is still a good example of adaptive reuse for commercial and educational or memorial purposes in comparison to the Ames Hotel discussed earlier. This argument is observed from ABA's effort in keeping the structures from the former jail intact and integrating them into his contemporary design, rather than masking them with what is appropriate for the contemporary society. Additionally, ABA implemented a historical center next to the lobby reception to educate the hotel guests about the history of the building per se. This succinctly demonstrates that an adaptive reuse project possesses the capacity to not only anchor money, like what the Ames Hotel solely does,

but also make an effort in educating the public about the history and collective memory of a particular building, and even a city.

6.2.2 From the former Washburn A Mill (1874-1965) to Mill City Museum (2003-present)

The Mill City Museum today in Minneapolis, Minnesota is another salient example of the second type of adaptive reuse (i.e. reuse for commercial, educational, and memorial purposes). It was designed with the “weavings” strategy. For this case, adaptive reuse is considered beneficial in which the abandoned flour mill has been revitalized as a museum to tell the stories of its past while parts of it are transformed into residential units and an architectural firm in order to maximize the existing building’s utilities and revenue at the same time. When adaptive reuse is adopted for commercial, educational or memorial purposes, it allows the historical fabric to “invade” into our contemporary routines and allow the users to feel the gentle reverberation of the past, rather than letting the monument itself to rot into a mere tourist landmark or a developed entity without showing reverence to its past.

The Washburn A Mill (fig. 77) was originally built in 1874. As a historical building, its former story formulated a significant cultural context that tells part of the United States history. As an architectural case for this work, the present Mill City Museum is an example of multiple award-winning architecture that combines the preservation of the building with contemporary utilities.

In an overall cultural context, the Mill is an edifice that defined and promoted the development of different aspects in Minneapolis in different aspects, such as waterpower, flour milling, food production, laborers and immigrants, and railroad. First, it is

significant for its location, which faces the Mississippi Riverfront. Minneapolis Riverfront, whose origin is the nearby St. Anthony Falls, is the oldest place in Minneapolis where people began to settle, owing to the convenience of the river as a source for food and water transportation. When the earliest population, the Native Americans like the Dakota and Ojibwe people, settled near the Mississippi Riverfront in the early 1630s, they were relatively dependent on the Riverfront for canoe transportation, hunting, and fishing. Owing to the Riverfront's great contribution to sustain the livelihood of the people of the time, the Dakota and Ojibwe peoples named the Mississippi Riverfront as the "Father of Waters." In the late 1600s, the French and the Spanish subsequently controlled the river when the European explorers moved into this area. The European explorers readily named the river as a "gathering of waters" owing to the length of the river. They mapped out all the river's channels and backwater areas, spanning from St. Louis, Missouri to Saint Paul, Minnesota, which is a total distance of 854 miles.¹⁰⁹ This river was then a source of energy supply when the lock and dam were constructed in 1950 to 1956 to generate hydroelectric system, which supported the entire Mill (fig. 78).¹¹⁰

Second, the former Mill, constructed in 1874, successfully defined the development of Minneapolis in terms of economics foundation by its stories of flour milling. In the mid-nineteenth century to early twentieth century, the Mill, as the largest flourmill of the time in the world, turned Minneapolis into a renowned city for flour production. During its heyday, of forming the economic foundation of the city, the

¹⁰⁹ "Overview and History," Google Great River Road, Minnesota, accessed November 10, 2014, <http://www.mnmississippiriver.com/great-river-road.cfm>.

¹¹⁰ "Minneapolis Riverfront," Google Mill City Museum, accessed November 5, 2014, <http://www.millcitymuseum.org/minneapolis-riverfront>.

Washburn A Mill was believed to have grained 2 million pounds of flour each day, an equal in value of producing 12 million loaves of bread. This extremely high production undeniably led to extensive job opportunities, which sustained the livelihood of the local laborers, as well as the immigrants. The consequent reputation of the Washburn A Mill also led Minneapolis to deserve the name of the “Flour Milling Capital of the World” in 1930. This implies the influences of the Mill did not only linger within the city and state per se, but reached out to the international arena.

To fulfill the demand of being the “Flour Mill Capital of the World,” the Mill and other similar facilities in the area also prompted the development of railroading. In the late nineteenth century to mid-twentieth century, the Mill had been accessed by rail. As shown in figure 79, the railroad tracks were constructed in 1883 behind the Mill for transporting grain from the Northern Plains grain belt and the Dakotas and Canada. Once the grain was processed, a different rail track allowed the train to deliver the milled flour to the east coast of the United States for both exporting purposes and domestic supplies.¹¹¹

In terms of the building per se, the Mill was originally built in 1874 and performed as a flagship mill of the Washburn-Crosby Cooperation. In 1878, a flour dust explosion (fig. 80) unfortunately destroyed the Mill after 4 years of operations, which consequently claimed 18 workers’ lives. The explosion resulted in a great destruction of the riverfront business area and the capacity of Minneapolis’ milling was cut into half, which led to a great impact on the foundation of the city’s economy.

¹¹¹ “Flour Milling History,” Google Mill City Museum, accessed November 5, 2014, <http://www.millcitymuseum.org/flour-milling-history>.

The dust explosion of Washburn A Mill in 1878 consequently had put William de la Barre, who was an Austrian civil engineer, into the involvement in the Mill reconstruction project. De la Barre came into the reconstruction project by introducing Cadwallader C. Washburn, the owner of the Mill, to a flour dust-collecting device that would prevent accidents like dust explosion. The Mill was subsequently reconstructed in 1880 under the commission of De la Barre, coupled with his introduction of technology and machinery in milling, which allowed safer operations and higher quality production. De la Barre did not only investigate the construction of the Mill and its machinery aspects, but also studied the seasonal effect of the river and St. Anthony Fall. This embodiment allowed him to improve the water distribution system and leveled the waterpower output of the Mill by approximately six times.¹¹²

Upon the completion of the reconstruction project of the first and second Washburn A Mill in 1880, with the introduction of technology and machinery, the Mill helped to define the advancement of the local industry within Minneapolis and became the largest and most technologically advanced mill in the world. However, the Mill was forced to shut down in 1965 when Buffalo, New York, surpassed it in production and cost efficiency. In 1991, regrettably, an anonymous fire raged and destroyed the Mill building terribly (fig. 81).¹¹³

The abundance of contributions made by the Washburn A Mill that defined Minneapolis as a city was the very reason that led to no destruction of the completely

¹¹² Molly Huber, "De la Barre, William (1849-1936)," Google MNopedia, Minnesota Historical Society, last modified November 15, 2013, accessed November 12, 2014, <http://www.mnopedia.org/person/de-la-barre-william-1849-1936>.

¹¹³ Andrew Urban, "Mill City Museum," *Journal of American History*, vol. 92, issue 3 (December 2005): 938-941.

ruined building although it was gutted by multiple disasters, such as the flour dust explosion in 1878 and the spectacular fire destruction in 1991. The building was designated as a National Historic Landmark in 1983 under the supervision of the Minneapolis Community Development Agency. Until 1994, they envisaged the site, by revitalizing and reusing it as a milling museum that celebrates the ruins, which could be a catalyst for the area's re-development alongside the riverbank. The Minnesota Historical Society was assigned to take care of the Mill's project while the firm of Meyer, Scherer and Rockcastle undertook the architectural design and planning for this project, completed in 2003 and opened as the Mill City Museum today. The mission of the chief architect, Thomas Meyer, was to make the ruined Mill usable by the public with modern components and honor the historic integrity of the milling structure at the same time.

What was left from the multiple disasters before Meyer implemented his design included the grain silos, the two Gold Medal Flour signs (fig. 82), the foundation pads for the two original water powered turbines (fig. 83), and the perimeter masonry walls in ruins facing the riverfront. Although the steel columns at the railroad tracks had survived from the multiple disasters, they were terribly twisted by the fire. Other than that, the metal ducts and parts of steel windows were hanging here and there in the air (fig. 84).¹¹⁴

As the chief architect of this project, Meyer faced the challenge of the commission of undertaking this project. In addition to the traditional scope of solving programmatic problems and accomplishing creative innovations, Meyer had to deal with the difficulties of incorporating the fragments with modern components. He also

¹¹⁴ Françoise Astorg Bollack, "Mill City Museum," in *Old Buildings, New Forms: New Directions in Architectural Transformation* (United States: The Monacelli Press, 2013), 204-207.

questioned to what extent the ruins should be retained and what degree of new elements should be brought in. Rather than avoiding the ruins, Meyer embraced them to create an utterly layered architectural design (fig. 85).

Meyer unquestionably had to include a new volume to the mere ruined shell in order to enclose the disparate fragments and embody different programs within the building. Instead of making the design to be solid and heavy, the new building by Meyer is designated to be spatially porous, creating a perception that the Mill City Museum is an incomplete construction. Does this imply that adaptive reuse does not necessary to bring a ruined structure back to its completion state? As we go through the design of the Mill City Museum, this question is important to be contemplated, which will be discussed again later.

In terms of the visitors' procession, the building has three entry points: the riverside entry, rail corridor train shed entry, or the city side entry. Through the riverside entry, the visitors come to the ruined courtyard with a panoramic view to appreciate the newly added eight-story glass façade (fig. 86). The depth of this perspective is just right with sufficient room as a reflective backdrop for one to acknowledge visually and ponder mentally about the interwoven story between the past and present, merely from the distinctive forms and construction materials.

Meyer states, "This is a significant challenge of restoring and maintaining the ruin; we have to make up details that I don't know if that had existed before. For instance, the jagged top of the ruined wall would not have survived at its post-fire state without an intervention, but we didn't want the intervention to look like an intervention,

we wanted it to look like the day after the wall collapsed.”¹¹⁵ The embodiment of this idea is conspicuously reflected in his design, in which Meyer did not see the newly-added glass façade as a flat plane but a multilayered pocket of spaces starting with the end of the ruined jagged wall (fig. 86). This seemingly deliberate design informs us that this new addition is a story woven out of the old, making the entire structure look unintentional. Another fascinating minute detail of this new curtain wall façade is the true-to-scale graphic of the milling machines (fig. 87). This kind of minor detail inevitably helps the visitors to view the former mill in their mind and evokes another kind of memory.

As the visitors walk in, they are to take the elevator and purchase their admission tickets at the lobby on the third floor, which is two levels higher than the courtyard level, before beginning their visit located at the first floor (fig. 88). One of the interesting features that we can observe in the lobby is that the different layers of the history of the mill are perceptibly presented here. As shown in figure 89, the round concrete columns are those remnants from the post-fire reconstruction in 1928 whereas the square columns, also of concrete, are the new structural elements added by Meyer.

The permanent exhibit gallery includes different kinds of artifacts of the former mill, such as the machinery for flour milling, a cross-section wooden model of the former mill to display the operations (fig. 90), nicely preserved invoices for order purchases (fig. 91), and a scrumptious meal spreads throughout a long dining table that displays a variety of possibilities of food production from the mill. This collection of artifacts, however, highlights the downside of the exhibition’s arrangement within the museum. It is because all of the artifacts are placed randomly within the exhibit gallery, in which the artifacts

¹¹⁵ “Mill City Museum,” Google Meyer, Scherer, and Rockcastle, accessed November 12, 2014, <http://msrdesign.com/project/mill-city-museum/>.

show no relation to where they were placed. Without showing the context of the artifacts, the capacity of informing the visitors about the artifacts has been weakened. If the journey of the exhibition had been organized in the flow of the process of flour milling, the visitors would have a clearer image of the story and history holistically rather than random pieces in their minds.

One of the key features of the museum is the Flour Tower (fig. 92), in which the visitors are to ride in a reused elevator and travel through the eight-story building. The reused elevator, which is the former elevator for transporting freight vertically within the mill, provides the visitors with multi-media exhibit whose views and sounds simulating the machines and workers, to educate the visitors how the mill performed when it was in operation. In other words, the entire ride experience provides the visitors with a better comprehension of the scenes or atmosphere of the time that made Minneapolis the “Flour Milling Capital of the World.” As the simulated voices of the former workers describe what it was like to work in the mill and operate the machines by risking their life, this oral history perfectly adds another dimension to the visit of the Mill City Museum. As a result, it successfully and holistically brings the fragments of memory of the past to the contemporary society. In other words, the Flour Tower is deemed to perform as a time tunnel that bridge the past to the contemporary, acknowledging that the accomplishment of the contemporary is laid over the foundation of the past.

The Flour Tower concludes on the eighth floor, where the visitors are greeted by a museum interpreter and a collection of machinery that used to vacuum dust produced from the milling process and prevent any dust explosion. What follows is the observation deck overlooking the breathtaking panoramic view of the Mississippi River, St. Anthony

Falls, as well as the surrounding area. Other than the awe-inspiring view, the visitors are exposed to a clearer visual of the structural elements of the building – the ruins of the perimeter masonry walls and the courtyard – which shows Meyer’s painstaking effort in keeping the existing ruins intact and preserving them as they were after the fire in 1991.

The ruined walls are made of different materials – some of the stones are red, which are those had burned at a very high temperature in the fire, while some are grey that had survived undamaged. With Meyer’s honest treatment and design strategies, we see no deliberate attempts are made to change the ruins or bring the destroyed portions to a complete state as a feasible building, although a modern functional building is slipped in sleekly.¹¹⁶

To reflect on the question that was highlighted earlier, should Meyer’s design imply that an adaptive reuse does not necessarily need to be in its complete state? In other words, should the ruins of adaptive reuse be the beautiful and powerful traces that assert the building’s own story without the need of a narrator? If the answer to both questions were positive, this indicates that adaptive reuse, especially with a good architectural design, is significant to stand alone as a three-dimensional conveyor of its own story. This accomplishment, however, is manifested through the meticulous treatments done by the architect, who studied and connected every fragmented element, as well as memory, as a whole and integrated them into the contemporary’s routine through adaptive reuse.

To review the commercial aspect of this adaptive reuse project, beside the museum store nor the café that also contribute to the revenue of the building, the Mill City Museum lends parts of itself to the residential and commercial rehabilitation as well.

¹¹⁶ Ibid.

The third, fourth, and ninth floors are converted to lofts, while the eight floor is transformed into Meyer's architecture firm. It is seemingly impossible to tie the essence of the flour-milling story into such personal space. This is especially difficult when the elements from the mill are those industrial exposed ducts, whereas a residential unit is meant to be a comfort zone that is cut off from any mental disturbance.

The architect, however, intelligently included the residential units and architecture firm as the participants in the building rather than avoid the distinctive or undesirable elements. Meyer's design strategy allows the masonry walls and the round concrete columns, which are the remnants from the post-fire reconstruction, to intrude naturally into those residential units as well as his own firm without masking them (fig. 93 & 94). The juxtaposition between the industrial design and household not only allows the remnants of the mill to stand out as a focal point within the space, but also serves as an obvious yet gentle reminder to the occupants to remember the past. This is analogous to how we should view history or past with a contemporary perspective – every inch of land that the occupants are standing on is all grounded on the foundation built by the mill.

Through the discussions and comparisons of different architectural cases, the benefits gained from this type of adaptive reuse, for commercial and educational or memorial purposes, have succinctly outweighed what we can gain from the first type (see Chapters 5.1 and 6.1). In commercial aspects, this type of adaptive reuse allows the re-establishment of new businesses within shorter time of renovation. Although the cost for renovation may be higher than a new construction, the time saved by altering the existing elements and making them usable again has far surpassed the figure spent – the sooner the business gets started, the more money it anchors. In educational or memorial aspects,

this type of adaptive reuse performs as a three-dimensional history textbook to educate the public about the past of a particular building, and even a city, in a more interactive manner. The reason is that, rather than reading and learning about history from a physical book or other forms of information, the public is provided with a physical space to re-render the scenes from the past and create empathy for what had happened, as well as a closer contact with the physical space that establish an “internal connection and communication” between the public and the building per se. In short, this type of adaptive reuse does not only show reverence to the past, but also celebrate the past with a brand new identity, allowing them to participate and contribute to the contemporary urban development with a *raison d'être*.

6.3 Reuse for Educational/Memorial Purposes

6.3.1 From the former “Elevated Freight-Railway” (1934-1980) to the High Line (phase I from 2009-present; phase II from 2011-present; phase III from 2014-present)

In this section, The High Line in New York, New York designed by Diller Scofidio + Renfro is discussed as the third type of adaptive reuse (i.e. reuse for educational or memorial purposes). It was designed with the “weaving” strategy. Adaptive reuse, in this case, is considered beneficial because of its painstaking compromise between urban revitalization and historic preservation, which successfully turns an abandoned and ready-for-destruction elevated freight-railway (fig. 95) into a vibrant public park, The High Line (fig. 96). When adaptive reuse is employed for educational or memorial purposes, it allows the historic fabric to gain new life and re-introduce itself to the society with what we might call a seemingly new image, while economic benefits are not the project’s priority. The “seemingly new image” is created by

turning the obsolete eyesore into a desire environment, which is able to create empathy for the past in a positive way rather than acute nostalgia. In addition, it allows the obsolete itself to perform as a tourist or local attraction or catalyst, which anchors redevelopment of that particular area, as well as investment in the neighborhood, while exposing its own story to more diverse users.

The birth of the former elevated freight-railway is rooted in the congestion of street traffic in New York, mainly on the West Side of Manhattan. In 1847, the West Side of Manhattan had already become a bustling industrial waterfront when the City of New York authorized street-level railroad tracks to be constructed at that area. The bustling area became even more uncontrollable as soon as the trains from Hudson River Rail Road and other lines began to serve the industrial area, such as warehouses and factories along Tenth and Eleventh Avenues (fig. 97). At the other extreme of that hectic and profit-making industrial waterfront, a number of casualties occurred in which many people were run over by trains. This saddening tragedy inexorably had given that area the nickname of “Death Avenue,” and caused a protest against the dangerous conditions of “Death Avenue” in 1908. As a stopgap for this issue, in the early 1920s, the railroad hired men on horses, called the West Side Cowboys, to ride in front of trains and wave red flags to warn the pedestrians when the train was coming (fig. 98). This temporary fix, however, would not solve the matter in every respect.

In 1924, The New York City Transit Commission commanded the railroad to come up with a plan to solve the casualties caused along Tenth and Eleventh Avenue, and they named this planning “the west side improvement.” The planning ended up with a proposal of the erection of an elevated freight-railway, at 30 feet above street level, that

snakes through Manhattan's Meatpacking District and Chelsea, starting from St John's Park Terminal on Spring Street and continuing to the Hudson River and the rest of America.¹¹⁷ As soon as the proposal was accepted, the construction on the new structure began from 1929 (fig. 99) to 1934, and the first train ran in 1934. In terms of craftsmanship, this structure can be considered as a medium to establish an internal connection between the users and the builders, as the massive frame was assembled by the steelworkers by hand.¹¹⁸

As an elevated line that spans for 1.45 miles (fig. 100), it not only sidled up to some old buildings but also sliced through some others (fig. 101) to bring food to the city's west side, which led itself to the nickname of "Live Line in New York" in 1934 because it sustained the livelihood of the neighborhood.¹¹⁹ In terms of urban issues, the elevated line was so impressive in the way that that it represented the evolution of street traffic; in particular, a changing system for the railroad track and freight transportation systems. It also merited applause due to its capacity to resolve the congestion of rail, ship, and street traffic that strangled commercial activity on Manhattan's West Side. This is proven by the number of freight elevators and trucks designated for the elevated line. According to Annik LaFarge, the New York writer and editor that lives above the High Line in Chelsea, "inside, 14 freight elevators were available to transport goods to the ground floor, where as many as 150 trucks could simultaneously load or unload

¹¹⁷ Jane Gillette, "On The High Line: Exploring America's Most Original Urban Park, by Annik Lafarge," in *Landscape Architecture*, vol. 103, issue 1 (2013): 114.

¹¹⁸ Joshua David and Robert Hammond, "Timeline 1847-1999," in *High Line: The Inside Story of New York City's Park in the Sky* (New York: Farrar, Stratus and Giroux, 2011), viii-ix.

¹¹⁹ "Improbable Journey: The Story of New York's High Line," Google Mother Nature Network, accessed November 19, 2014, <http://www.mnn.com/lifestyle/responsible-living/sponsorvideo/improbable-journey-the-story-of-new-yorks-high-line>.

cargo.”¹²⁰ When all these activities happened 30 feet in the air, this inevitably abated the congestion on the ground.

As an aftermath of World War II, the heyday of the elevated line did not endure. The market of manufacturing in the city gradually declined, and ultimately so did the diminution of train traffic. This decline was also prompted by the increase in freight truck traffic on the new interstate highway system, and thus the New York Central Railroad was forced to sell St. John’s Park Terminal in 1960. Besides selling the terminal, the service on the southernmost section, called south of Bank Street, was halted and its line was demolished then. Although the other sections of the line were still working, the number of the boxcars was decreasing. In addition, the last train that ran down the High Line, which is the moniker of the elevated line used in the late 1980s, was reported only pulling three boxcars of frozen turkeys and left abandoned (fig. 102). From being abandoned to having a new proposal, the High Line experienced a changing of ownership, although the sale agreement was repealed in 1986. Later in 1989, the High Line was required to be demolished due to its adverse abandonment, while some other individuals keen in the High Line were making effort to save it from demolition.¹²¹

In 1999, CSX Transportation, which is an international transportation company, commissioned a study on the High Line. Everyone that was interested in saving this significant relic of railroad track in New York was welcomed to the commission board meeting to present his or her suggestions on how to deal with the High Line. Those suggestions included turning it into a horizontal parking lot, rolling billboard, rail

¹²⁰ Gillette, “On The High Line: Exploring America’s Most Original Urban Park, by Annik Lafarge,” 114.

¹²¹ David and Hammond, *High Line*, viii-x.

banking, etc. While some of the individuals did not really care about the saving of the High Line or wanted to tear it down, Joshua David and Robert Hammond, a writer and an entrepreneur respectively, were so eager that they wanted to preserve it and turn it into something else for future use. As individuals who were interested in helping to save the High Line from demolition, in 1999, David and Hammond cofounded a foundation, called “Friends of the High Line.” In the name of “Friends of the High Line,” David and Hammond raised millions of dollars and led a fight against the demolition of the High Line. To protect and create a brand new image for the High Line, they sought for some use for it in the future.¹²²

A design competition was announced in 2004, seeking interdisciplinary design teams of architects, landscape architects, engineers, horticulturists, and lighting designers, as well as professionals from many other disciplines. The proposal for the High Line set out to include the past of the High Line and enticed people to visit and stroll around. Among the four finalist teams like TerraGRAM, Zaha Hadid Architects, Steven Holl Architects, and James Corner Field Operations and Diller Scofidio + Renfro, the latter teams finally won the design competition and turned their winning proposal into the design of the High Line as it exists today.

The winning design teams, James Corner Field Operation and Diller Scofidio + Renfro, won the competition with their protective proposal of the High Line, in which they rejected any mundane aspects or programs to be held that might dilute the special qualities possessed by the High Line. For instance, they fought against people who only went to the High Line to get a cup of coffee because there were too many other places in

¹²² Gillette, “On The High Line: Exploring America’s Most Original Urban Park, by Annik Lafarge,” 114-118.

New York to drink coffee. Rather, they intended to make a bold contrast to the life under or surrounding the High Line. In other words, their design intention was to evoke a sense of slowness and quiet distraction that contrasted to the fast pace of everywhere else in the city.¹²³

Other than dealing with the above concerns, the concept of the collaborating design teams was inspired by the melancholly of the wild seeded landscape that had been left after the High Line had been abandoned, which is reflected in *Walking the High Line* photographed by Joel Sternfeld. Taken from May 2000 to July 2001, Sternfeld's photographs witnessed the seasonal changes of the unoccupied High Line (fig. 103), which was slowly infiltrated and colonized by overgrown weeds and plants (fig. 104) such as scrawny trees, buttercups, clover, grape hyacinths, etc.¹²⁴ James Corner, as the leading architect of the collaborating design team, was driven and compelled to the narrative of the High Line. His aim was to approach this project as more than a singular object, and he expresses, "rather than just using it as a site to do a project, we actually used the site as something to try to amplify or concentrate the High Line's charm; the aura."¹²⁵

Without stretching too far from its past and to amplify its charm, the design teams had a keen desire and intention to translate the wildness of the biodiversity that took over the abandoned relic into their design for the High Line through a strategy of "agritecture," which is part agriculture and part architecture. To accomplish this strategy, the architects designed a paving system to incorporate with the existing fabric of the

¹²³ David and Hammond, *High Line*, 93-101.

¹²⁴ Carolyn Kuebler, review of *Walking the High Line*, ed. by Joel Sternfeld, Adam Gopnik, and John R. Stilgoe, *Library Journal* 127, no. 16 (October 2002): 92.

¹²⁵ Gwen Webber, "The High Line," in *Blueprint*, issue 304 (2011): 50.

biodiversity. Matching with the concept of wildness, the paving system was designed in an irregular manner (fig. 105) where the public can wander in unscripted ways. The paving system was composed of linear concrete planks with open joints and specially tapered edges that comb into planting beds naturally. This design allows the free flow of water for irrigation, as well as mimics the emergent growth of wild plants through the cracks in the sidewalk (fig. 106). To assure the water collected for irrigation is sufficient to sustain the livelihood of the biodiversity, the horticulturists introduced low-maintenance native plant-life that pair well with the entire design and the signature art deco railing.¹²⁶ This pairing aimed to amplify the interacting system within each aspect of the High Line, allowing it to blend in together and perform as an ecosystem. Just as what Corner says, “We didn’t want a sharp delineation between the plantings and the hardscape, so we treated the park as a continuous carpet where the hard and soft blend together.”¹²⁷

The construction of this ambitious project was divided into two stages of work: site preparation and construction of the public landscape. For site preparation, the construction teams traced the position of the existing railroad tracks and trestles, which would be a reference for them to reinstall and give the appearance that the structures remained intact, before removing them. They also removed the grass, soil, and other materials to allow the following works: comprehensive waterproofing, followed by

¹²⁶ “The High Line (Phase I and II), Public Park: New York,” Google Diller Scofidio+Renfro, accessed December 3, 2014, <http://www.dsny.com/#/projects/high-line-two>.

¹²⁷ Clifford A. Pearson, “High Line New York, James Corner Field Operations and Diller Scofidio + Renfro: James Corner Field Operations and Diller Scofidio + Renfro Change Our Perspective on Parks with the High Line,” *Architectural Record* (October 2009), accessed December 3, 2014, <http://archrecord.construction.com/projects/portfolio/archives/0910highline-1.asp>.

striping and painting of all the art deco steel. For the construction stage, the works included the installation of access points (stairs and elevators), pathways (fig. 107), seating, lighting, planting beds (fig. 108), safety enhancement and other features. In addition to these works, the railroad tracks were reinstalled to the new landscape (fig. 109) as if they would had been kept intact with the pathways blending in together (fig. 110).¹²⁸

Owing to the size of the High Line and its project scope, the construction was divided into three sections. The construction of the first section, spanning from Gansevoort Street to West 20th Street, was completed and opened to the public in June 2009, followed by the second sections (West 20th Street to 30th Street) opened in June 2011, and the third section in September 2014.¹²⁹ As soon as it was opened to the public, the High Line successfully captivated the entire city, especially the residents nearby that district. It evokes the memory and nostalgia of the residents, as they grew together with that local significant relic that weathered and wore into the fabric of the city. Yet, they now see the relic with a brand new image as a vibrant public park rather than being trapped in the emotions where they only see the massive line as an undisturbed space. This space is now endowed with a new life and its liveliness is revitalized again although it is different from what it was.¹³⁰

¹²⁸ “ Mayor Bloomberg Announces City Acquires High Line From CSX Transportation: Trail Use Agreement Signed Permitting Recreational Uses on the Elevated Rail Structure; Transformation into Public Open Space to Begin in 2006,” *Friends of High Line*, November 16, 2005, accessed December 3, 2014, http://assets.thehighline.org/original_site/newsletters/111605_pr.html.

¹²⁹ “Overview about the High Line: History: A Revitalized Piece of New York City’s Past,” Google Friends of the High Line, accessed December 3, 2014, <http://www.thehighline.org/about>.

¹³⁰ Webber, “The High Line,” 49-54.

Just as the architects' promising intention to turn the High Line into an otherworldly landscape, the access points like stairs and elevators are the mediums that prolong the transitions from the fast-paced city streets to a quiet distraction 30 feet above the street level. There are a number of outdoor spaces offered at the High Line, such as a sunning area at 16th Street with wooden chaise lounges (fig. 111), an overlook with a large glass providing a view of 10th Avenue (fig. 112), and a grassland where people can lay down and relax (fig. 113). Other than these outdoor spaces, the High Line is like an architecture gallery that borrows the surrounding environment as a huge canvas whereas the buildings are the focal point of the art piece. When people walk up to the High Line, they are served with an immediate view on the Hudson River and the beautiful cityscape of New York City, including many prestigious buildings like Frank Gehry's IAC Building (fig. 114), Shigeru Ban's Metal Shutter House (fig. 115), and Jean Nouvel's apartment block 100 11th Avenue (fig. 115), and Renzo Piano's Whitney Museum of American Art (fig. 116). These buildings are displayed either opened up broadly or are framed serendipitously by adjacent buildings.

If one is to offer a piece of criticism, despite the meticulous design and intimate interactions between the park and its surroundings, the users are only able to see the tangible traces of the abandoned High Line, which are the original tracks and the rusting Art Deco railings. What about the intangible experiences and memories that once made the High Line significant to the city? These intangibles simply include how the trains used to perform along this 1.45-mile railroad tracks – how it brought food into the city, loaded and unloaded cargoes from one building to another, and finally distributed it to other places. This is the aura, which made up the liveliness of the High Line of its age,

and now the liveliness of the High Line is re-ignited in a totally different manner that has detached from its original purpose.

It is always positive to envisage the old High Line with a new perspective. However, it would be beneficial to discuss the other side of offering that historic preservation could make a better design, which educates the public users and brings a variety of experiences to the users at the same time. Standing at the position of historic preservation, simply retaining the physical body of that structure [original railroad tracks] does not seem to be obliging without its soul [the intangibles]. The physical body is dead, a non-living object, which is mute and unable to convey messages to the public users. Yet, its soul does because humans [the public users] have souls, in which they can relate themselves to the old High Line easily and innately since they are the same sorts.

This issue, however, is not apparent for this generation because the history of the High Line began 80 years ago, which is not far off from where we are today. Without a hitch, the elderly can relate their personal experiences to the history of the High Line, as they witnessed the evolution and revolution of it. For the adults or younger generations, they only get a look at the deserted High Line and hear from their parents' or grandparents' narrative, as a primary source about the old High Line. From there, they can barely manifest the history of the High Line by connecting what they saw and heard bit by bit, and treasuring the High Line today. Yet, when it comes to the later generations after the resurrection of the High Line today, the issue highlighted above will become apparent. Perhaps their parents, who knew about the history of the High Line, could be their narrator. Yet, the experiences obtained by the parents from what they heard are never comparable to the experiences of the ones who witness the history itself. It will be

even more difficult for the later generations to create empathy for what the High Line was and how it strove to become what it is today. The history of the High Line is just going to fade as it wears out through the passage of time. What people know is its conversion from a previous elevated railroad tracks, but not the story behind the line – like why it was built and how it was used – as well as the interesting political issues and debates laid behind. Other than that, it is just another interesting hang out place to see and be seen, which has totally failed the ultimate goal of historic preservation.

If the High Line had been designed to incorporate the experiences of the High Line in operation of the public users, the history and significance of it would not diminish but continue to survive and flourish in the present and future. This will result in creating different layers of history for the High Line. When people from different generations use it, they will endow it with different meanings, as each age interprets matters differently. Other than the great effort done by the architects, there is a way to design an intangible experience. With the help of technological advancement today, we are not only allowed to design the concrete and solid forms, but also the abstract ones. For example, by providing a three-dimensional projection of how the train used to work at a certain time, running through the existing railroad tracks that have been kept. The public users will be able to witness the history of the High Line, but not only count on their imaginations where they might misinterpret or distort the real story. On top of that, the integration of sound simulation will help to convey the original purpose of the High Line without a hitch. These abstract forms do not only help to resurrect the past but also create a perception of distance, just like our distance from the past. Although we are afar off from the past, there is still a need to learn what happened before we were born simply because

“history does not belong to us; but we belong to it.”¹³¹ Despite the fact that the historical interpretation of the High Line is weak, this project still merits applause, owing to the effort made by the Friends of the High Line. As a non-profit organization, the Friends of the High Line does not only protect the historic structure from demolition, making it a desirable public park, but also effectively works for the revitalization of the economy of the area.

6.3.2 From the former Thyssen Hochofenwerk Meiderich (1901-1985) to the Landschaftspark Duisburg, Nord (1991-present)

The last architectural case is the Landschaftspark Duisburg-Nord in Duisburg, Germany (fig. 117), which is another example of the third type of adaptive reuse, reuse for educational or memorial purposes. Designed by Peter Latz, a German landscape architect, it is an adaptive reuse example of the “weaving” strategy. The Landschaftspark Duisburg-Nord highlights the benefits of adaptive reuse, in which the aesthetic of an industrial relic is brought to life again. It is endowed with an experience rich in memories, associations, and feelings, which influences culture, nature, and leisure. For this case, the uncountable benefits of adaptive reuse are explainable. This is mainly because when adaptive reuse is employed for educational or memorial purposes, the historic relic becomes a highly active part that serves a vital function in the contemporary with a new identity, where people are eager to visit and participate in learning its past, rather than letting the relic rot into a mere museum that solely awaits visitors.

In the mid-nineteenth-century, Duisburg was one of the cities in Germany renowned for its dense population, prompted by the heavy industrial development. The

¹³¹ Hans-Georg Gadamer, “Elements of a Theory of Hermeneutic Experience,” *Truth and Method* (London: Continuum, 2004), 276.

industrial development was made up by a number of productions, such as mines, iron, steel works, as well as roads and rail networks that crosses the region. In 1901, viewing this high demand and supply of industrial production as a great business opportunity, August Thyssen began his ironworks company, Thyssen Hochofenwerk Meiderich.¹³²

As soon as the construction work was completed, Meiderich Ironworks factory began to produce steelworks by blowing in its first blast furnace in 1903 (fig. 118). By bringing in the first machine, it allowed the ironworks company to produce a variety of steelworks, including hematite, case and non-phosphorous pig iron. In the later years, with the ambition of increasing the size of his company, Thyssen subsequently set up other blast furnaces (fig. 119, 120 & 121) and all five were operational in 1912.¹³³ With hardship and effort, Thyssen led his ironworks company to become one of the major economic sources in Ruhr District. Meanwhile, it also symbolized great job opportunities for the locals at that time.

The greatest success of Thyssen's company, unfortunately, did not last any longer when the First World War occurred in 1914. The company started having difficulties in obtaining ore due to the export boycott and laborer shortage. This terrible situation led the company's pig iron production into crisis. After suffocating for about a decade, the situation was eventually normalized in 1923. However, the ironworks company, once again, experienced another great challenge of world economic crisis in 1930. This undesirable situation reduced the company's income by half, which consequently led to

¹³² Mònica Oliveres I Guixer, "Landschaftspark Duisburg-Nord, Duisburg (Germany), 2000: Restructuring of a former industrial zone in the Rhur basin, new park in the north of Duisburg," Google Public Space, accessed December 14, 2014, <http://www.publicspace.org/en/works/a008-landschaftspark-duisburg-nord>.

¹³³ "Chronology: A bit of History," Google Landschaftspark Duisburg-Nord, accessed December 14, 2014, <http://en.landschaftspark.de/the-park/evolution/chronology>.

wages reductions and shorter working hours. With an upturn and increased revenue in 1933, the allies confiscated all of the company's iron and steelworks, and planned to demolish the company. Thyssen managed to talk and negotiate with the allies and was granted permission to resume his steelworks production with only two blast furnaces.¹³⁴ In addition to having unskilled workers from overseas, Thyssen's ironworks company was forced to close down in April 1985 owing to the wake of new steel production quotas mandated by the European Union.¹³⁵ Consequently, the percentage of unemployed workers rose from a low of 1.3% (approximately 12, 700 unemployed) in 1969 to 14.7% (approximately 265, 800) in 1986.¹³⁶ Since then, the 200 hectares turbulent manufacturing plant once significant with heavy machine production noise had turned into the silence, left itself devoid of function and meaning, and waited for re-appropriation.¹³⁷

The shut down of the former Thyssen's steelwork company revealed high levels of land and water pollution in the surrounding areas due to its industrial heavy-duty operation throughout the decades. The unpleasant polluted environment of that area prompted an ecological renewal project in 1989 in conjunction with reusing it. In *Groundswell*, Peter Reed, curator in the Department of Architecture and Design at The

¹³⁴ "Chronology: A bit of History," Google Landschaftspark Duisburg-Nord, accessed December 14, 2014, <http://en.landschaftspark.de/the-park/evolution/chronology>.

¹³⁵ Werner Abelshauser, Wolfgang Köllmann, and Franz-Josef Brüggemeier, *Das Ruhrgebiet im Industriezeitalter: Geschichte und Entwicklung* (Düsseldorf: Schwann im Patmos Verlag, 1990), quoted in "Memory Gardens: Aesthetic Education and Political Emancipation in the Landschaftspark Duisburg-Nord," in *German Studies Review* 33, no. 2 (2010): 243-261.

¹³⁶ Judith M. LaBelle, "Emscher Park, Germany – expanding the definition of a 'park,'" in *Crossing Boundaries in Park Management: Proceedings of the 11th Conference on Research and Resource Management in Parks and on Public Lands*, ed. David Harmon (Hancock, MI: George Wright Society, 2001), 222.

¹³⁷ "Memory Gardens," 243-246.

Museum of Modern Art, asserts that in order to rehabilitate this site, “the question whether to reveal or conceal the traces of a site’s history – whether natural, industrial, or political – defines its genius loci and ultimately plays a role in the form, meaning, and cultural significance of the new design.”¹³⁸ Owing to the history of the site, this former Thyssen manufacturing plant recorded the collective memory of the region, such as its wounds, bruises, and experiences that caused by job loss, unemployment, war, etc. Thus reusing the manufacturing plant may impact the region’s psyche by stirring the unpleasant memories.¹³⁹ This issue highlights one of the concerns in embarking on adaptive reuse, that is, to avoid from any negative interpretation of the past, which is enumerated previously.

An international landscape architecture competition was held in 1989. The winning landscape architect, Peter Latz was able to revitalize the plant successfully. Instead of treating the remaining structures as stumbling blocks, Latz defined the traditional serene notion of “park” by including and transforming the former massive industrial structures into a destination of cultural recreation.¹⁴⁰ As stated by Latz, “the park is not a park in common sense, not easy to survey, not clearly arranged, not recognizable as a whole. According to its situation amidst chaotic agglomerations and infrastructure lines, it appears as a torn figure with numerous different aspects.”¹⁴¹ Thus, rather than reshaping the site, Latz imagines the site is composed of combined small gardens and large-scale landscaping with the existing buildings and infrastructure; just as

¹³⁸ Peter Reed, *Groundswell: Constructing the Contemporary Landscape* (New York: Museum of Modern Art, 2005), 16.

¹³⁹ “Memory Gardens,” 245.

¹⁴⁰ Hugh Hardy, “The romance of abandonment: industrial parks,” in *Places* 17, no. 3 (Fall 2005): 32-37.

¹⁴¹ “Landschaftspark Duisburg, Nord-Duisburg, Germany,” 7.

planning different pocket of spaces within architecture with the existing structural columns.¹⁴² In order to rejuvenate the polluted land, Latz conducted an ecological renewal practice. For instance, previously served as an open sewer channel, the Emscher River that ran through the park from east to west was transformed into a pretreated runoff and rainwater collector to culvert and divert wastewater. Another visible effort was covering the lightly polluted land with new layers, and closing off areas that they were unsafe to be used.¹⁴³

Taking the advantages of the remaining scattered buildings and structures at the site, Latz converted the great concrete storage structure into playgrounds that integrated with metal slide (fig. 122), a bunker concrete into a water-filled gasometer that serves as training facility for scuba diving, a hulking wall into a rock-climbing center (fig. 123), and one of the massive blast furnaces into a concert venue.¹⁴⁴ These programs are served as the central area for exploration of this cultural recreation. There are layers radiating out from the central area, such as rails and bike paths (fig. 124), which are intertwined with the surrounding landscape. Along the paths of these untamed areas, the signage is designated to be minimum to allow disorientation within the site yet contemplative wandering and exploration in the meantime. For zoning wise, the boundaries of the entrances and exits are blurred so one is able to stumble upon different zones with surprises.¹⁴⁵ The design intention of Latz is to allow everyone to emerge meanings from the site distinctively while they traverse freely. As stated by Latz, “everyone who uses the

¹⁴² Arno S. Schmid, “Heilung der Wunden,” in *Garten+Landschaft* 12 (1992): 12, quoted in “Memory Gardens,” 245.

¹⁴³ Latz + Partners, “Landschaftspark Duisburg Nord – Duisburg, Germany,” (paper presented at the EDRA/Places Awards Design, 2005).

¹⁴⁴ Hardy, “The romance of abandonment,” 34-35.

¹⁴⁵ “Memory Gardens,”

park has a different park” since people can come upon and appropriate whatever is relevant to their experience within the park.¹⁴⁶

Despite integrating the new design with the existing remnants, Latz also took good care of handling the polluted terrain, making it a piece of sustainable design. The meticulous design and thoughts by Latz included the planning the types of vegetation to revitalize that area and their management, collecting of rainwater, dispensing with soil movement and construction measures, and dispensing with laying of underground pipes that respond to the disused dumps. Other than these acts, Latz wanted the energy, which is necessary to support the operation of the park, to be generated by the park itself. To accomplish this, Latz introduced a wide range of generating systems into the park, such as wind-power plants, photovoltaic systems, and solar collectors, etc.¹⁴⁷

To offer a piece of criticism, through the design approach of Latz, instead of forcibly imposing specific cultural or historical values, his design allows room for the park users to explore and contemplate. However, the outcomes vary according to different people – some may recall the heyday of the plant, while some may empathize the pain of the unpleasant job loss and economic decline at the time. Latz’s juxtaposition between the site and programs was well played, as his design reveals the scars of the abandoned plant [the old, former structures] and soothes the uneasy emotions with the lively and playful programs. With his completely innovative design, the Landschaftspark has served as a perfect example of new generation of park, as well as an example to other

¹⁴⁶ Arthur Lubow, “The Anti-Olmsted,” in *New York Times Magazine*, May 16, 2004, accessed December 14, 2014, <http://www.nytimes.com/2004/05/16/magazine/the-anti-olmsted.html>.

¹⁴⁷ Peter Latz, “Landschaftspark Duisburg Nord: Duisburg North Landscape Park,” in *Anthos*, vol. 31 (1992): 31-32.

similar case of ways to go about adaptive reuse with industrial relics. The ways he designed the Landschaftspark has perfectly addressed the notion of adaptive reuse, that is, to bring the historic fabrics alive yet view them positively instead of holding grudge from the past.

Looking at the other side of historic preservation, the newly addressed program seem to have gone too far from acknowledging the users of how exactly the former Thyssen's ironworks company operated. For instance, the introduction of a metal slide to the concrete storage structure would not inform people of what was the role of that structure and how it served the company. This same issue applies to the rock-climbing wall. It is understandable that Latz was trying to bring in some adventurous activities to the former manufacturing plant in order to render the possible risk and danger that could happen in a factory. However, the activities appear to be not only detached from the original history about the former manufacturing plant, but also between each activity itself. Yet, it had been great if the new activities and programs could be designed in the way that relates to the story of the former steelworks manufacturing plant. With Latz's intention to create a chaotic agglomeration within the boundary, there should be a way to define certain orders of relationship within chaotic. This method could be done by addressing the new activities to each relic according to the former usage of the relic itself. For instance, the user has to complete the current challenge in order to proceed to the next activity. This process and experience is analogous to the process of production in factory – there are always certain sequential steps to be followed in order to complete the final product. By planning the new activities analogous to the relic's former usage, completing all the activities will help the users to create empathy and apprehend how the

former industry performed in its heyday with more positive perspectives rather than unknown nostalgia.

To compare to the previous architectural case studies of each type of adaptive reuse, the third group, which is reuse for educational or memorial purposes, yields different findings. While economy is not the priority in adaptive reuse project, the historic property is worked to its fullest potential in providing the public with a livable environment through different forms of revitalization effort. However, the effort is solely made to protect the historic property from demolition and commemorate the past of that particular property based on its physical presence. At this point, adaptive reuse is served as a strategy to reintroduce the forsaken historic property with a brand new identity and make it usable and desirable for the public, rather than pay attention on making connection between the new and old function and educating the public about the history of that particular property.

CHAPTER SEVEN: EXPLANATION OF SURVEY RESEARCH METHODOLOGIES

The effort done by the architects were studied and explained explicitly above. Nevertheless, knowing how the architects go about adaptive reuse, in terms of their design intentions of whether or not to convey certain values, is sparingly sufficient to holistically understand the effectiveness of the reused historic building. The idea of effectiveness is does not only include the understanding of how the reused building performs its contemporary functions, but also evaluate how it is brought alive to establish an internal connection and communication with the contemporary society and tell its own story to the public. This section explains the survey research methodologies applied to study how the public learns about history from their visit at adaptive reuse project.

7.1 Research Question & Objectives

Other than literature review, a survey research was conducted at the Mill City Museum in Minneapolis, Minnesota in order to study the influences brought by adaptive reuse to its users and society, as well as whether or not it is able to establish an internal connection with the users to convey its values. This overall objective is determined by studying the values brought by the Mill City Museum in different perspectives as discussed earlier: historical, architectural, cultural, economic, and societal. The environmental perspective is not designated in the study of this survey research because whenever a building is reused, materials that are saved from the existing building for sure, which helps to reduce the energy consumption for destruction and new construction.

For historical values, this survey research analyzes the awareness of history through the design language in the Mill City Museum and examines whether the historic

features and remnants of that building help the users to learn history better. For architectural values, this survey research aims to study the users' awareness of different features, finishes or construction techniques that delineate the two contradictory aspects within the same building. In terms of cultural values, this survey research sets out to find out the activities and spaces, in which the users enjoy the most in the museum, as well as how the designated activities and spaces help the users to learn history better. For economic values, this survey research aims to evaluate the development of the neighborhood. This survey research also involves the understanding the users' motivation to visit to the museum to render the societal value or pattern of adaptive reuse.

7.2 Data & Methods: Participant Population, Survey Mode Design, Methods of Recruiting Participants

The participant population of this research was the staff or employees, who work in the Mill City Museum based on volunteer sampling. In other words, this survey research involved the staff of the Mill City Museum with the approval of their director to volunteer their museum as a site for this research. The reason that the staff are chosen to be the participant population is because they are the long-term users of the reused Mill City Museum. In addition to that, they are also able to provide information about the visitors based on their observations and interactions with the visitors. This survey research originally set out to include the museum's visitors as the participant population. Including the visitors as the participant population is helpful, as they are the "primary sources" in this research. Unfortunately, this research was not allowed to have direct access to the museum's visitors. Thus, the staff of the museum, based on their observation and interactions with the museum visitors, is a good source to acquire information and feedbacks from the museum's visitors.

Considering the financial constraint, this survey research was conducted via Qualtrics, a Web surveys software, in which the questions were administered online through a computer. Although this survey method was limited to those potential participants without Internet accessibility, it helped to bring this survey research to an accomplishment despite the financial and distance restrictions. Another advantage of employing Web surveys software is to protect the privacy interest of the participants. By using Web surveys software, it allowed automatically return and direct accessibility without leaking to other individuals once the participants completed the questionnaires.

The recruitment of this survey research was done by sending an advanced e-mail as pre-notification to the Director of the Mill City Museum, Laura Salveson. This pre-notification e-mail was sent to introduce her the study of this survey research, as well as to request for her approval for conducting this survey. As soon as the approval letter was granted by the director of the Mill City Museum and this survey research was approved by Institutional Review Board (IRB), this survey research started officially by distributing the survey. The survey was distributed accompanied by an informed consent e-mail, including a recruitment flyer that explains the purpose and goal of this survey research and a link to access the online questionnaires. The potential participants were free to respond to the questionnaire at their workplace at their convenience in two weeks time, from February 4th to 18th, 2015. Rather than obtaining the staff list of the Mill City Museum and distributing this survey research to each of them, the informed consent e-mail was sent to one of the staff, who then forwarded the e-mail to the other staff. The reason for doing so was to show respect and protect the potential participants' confidentiality.

7.3 General Questions of Questionnaire

There were totaled over 19 questions in the questionnaire, which were categorized in four general question topics. The first general questions topic involved the personal information of the participants, such as age and gender. Followed by the second general questions topic, this session included questions about the personal working experience of the staff in the Mill City Museum, covering the historical and architectural values of the museum per se. The third general question was about the participants' observations about the visitors' visiting experiences at the Mill City Museum. This session helped to render the cultural and societal values or patterns within the museum. The last general question topic asked about the economic of the Mill City Museum, which helped to study the economic values of the museum itself and to its surrounding neighborhood. Copies of the questionnaire accompanied by the responses of the participants are included at the appendix for reference.

CHAPTER EIGHT: SURVEY ANALYSIS & DISCUSSION

In order to fully study the effectiveness and capacity of adaptive reuse projects, a survey research concerning how the reused historic properties influence its users was proposed. Besides doing pure research regarding different architectural case studies, conducting a survey research is beneficial in this thesis. The reason is that this survey research allows a direct access to the users of the reused building to study what they think and how they feel, rather than only stand at a point of view of the architects and designers to articulate their design intentions. It is important to understand that architects and designers tend to believe that their design intentions are good in the way that influences and adds values to the public users, while the design intentions remain questionable until a survey research regarding the users' perspectives is conducted and the data collected is studied and analyzed.

8.1 Data Analysis & Findings

The survey was proposed to three adaptive reuse projects, each selected from one of the three categories discussed in Chapter 5. Unfortunately, the proposals were rejected by the Ames Boston Hotel and Friends of the High Line, as this survey research is not in line with their job scope, and only the Mill City Museum granted a permission for conducting this survey. Although this survey research was turned down by Friends of the High Line, they provided a similar professional survey research that they conducted in 2013 as reference for further analysis in this work. This section discusses the findings of the survey research conducted at the Mill City Museum and the High Line respectively, followed by a comparison of the effectiveness between the two adaptive reuse types.

8.1.1 Mill City Museum, Minneapolis, Minnesota

Before digging in much deeper into the findings of this survey research, it is important to highlight a point in advance regarding the validity of this survey research. Due to the limitations and low response rate, the validity of this survey research is low but it is still worth to study the data collected, especially for the comments collected from the open-ended questions. As discussed earlier, a number of questions were carefully crafted following four general topic questions in order to obtain information about the benefits of the Mill City Museum, as an adaptive reuse project, in different perspectives – historical, architectural, cultural, economic, and societal. The results obtained from the survey yield a number of key findings that made the Mill City Museum a success adaptive reuse project, which will be discussed as follows.

As explained earlier, the architectural benefits of adaptive reuse are conceivable when the historic features of the building itself are the tools for self-understanding of a certain time period (see Chapter 3.1). In order to validate this hypothesis, two questions were included in the survey questionnaire: (1) Based on the structure of the building, are you able to distinguish the original structure from the contemporary addition within this building? (2) As you are to encounter the original structure of the building when you come to work, does the original structure help to relate your personal experience to any historical events that you have learned or heard of before? The answers obtained from the first question reflect the first architectural key finding – the historic features of the old building, which are different from the contemporary addition, perform as the tools for self-understanding of a certain time period. This finding is evident when the staffs, the participants of this survey research, are able to tell what the distinctive materials are that

help them to delineate the boundaries between the existing Mill City Museum and the former Washburn A Mill. These distinctive materials include the brick walls, concrete ceilings and certain concrete pillars from the former mill and the glass and steel that are used for many new features of the existing museum. The data provided by the staff also reveals that the different materials within the Mill City Museum help to understand how this building itself was adapted and changed over time. Another interesting architectural key finding, which could be a suggestion or consideration for the practicing architects, is the historic feature of the historic building does not necessary to be completely restored to its best form to convey its architectural value. This is reflected in the data provided by the staff about the ruin courtyard, in which the brick wall was raged and destroyed by the fire in 1991, while the architect decided to keep this ruin wall intact to tell its own story. Not only the staff is able to understand the impact of the fire, but also the visitors love to spend time at the ruin courtyard because this remnant is able to render the collective memory to them.

The cultural benefits of adaptive reuse are perceptible if only the new building that sits on top of the former one is still practicing the original activities that the former building used to hold (see Chapter 3.2). In the Mill City Museum, there are a number of areas that fulfill this requirement: the Flour Tower, the ruin courtyard, the observation deck, and the permanent exhibit gallery. The Flour Tower, in particular, is worth a focused discussion, which demonstrates the key finding of cultural benefits of adaptive reuse – history is learned better if only the former activities are integrated into the contemporary functions through adaptive reuse. This finding is yielded by asking which part of the museum do the staff think the visitors enjoy the most in the museum, as well

as learning why the visitors enjoy that particular area. Provided by the staffs, the participants of this survey research, the visitors of the museum enjoy spending the most time at the Flour Tower and its exhibit, followed by the observation deck on the top floor, the permanent exhibit at the lower floor, and the ruin courtyard. The reason that the Flour Tower appears to be the most favorable visiting area is due to its ability in re-rendering and bringing what happened in the past back to the contemporary society. This is highly associated with the capacity of adaptive reuse, as the Flour Tower is a reused elevator from the former mill, in which the elevator was used to transport freight vertically within the former mill. This existing elevator is reused as the Flour Tower today that provides a vertical ride within the eight-story building to re-render how the former mill looked like when it was in operation. Accompanied by the technologies, movements, and sound effects performed by the exhibit in the Flour Tower, these combined experiences inevitably help to put a kaleidoscope on the visitors' lenses and bring them back to the past, knowing what the practices or activities were in the former mill and how it was to work here.

On the contrary, the other areas are only able to showcase what made the past of the building through the non-interactive artifacts and surrounding context. For instance, although the permanent exhibit at the lower floor is self-explanatory, the artifacts are dead and mute and they do not communicate well how they used to perform. It is nevertheless a complementary experience to the live exhibit at the Flour Tower. Another example of showcasing what made the past of the building is the observation deck at the top floor, which is a part of the contemporary activity planned by the architect. The observation deck provides a reflective space for the visitors to understand the setting of

the former mill, knowing what the source was to help the former mill perform its high productivity. For the ruin courtyard, as discussed above, being an open space for any possible activities to take place, it helps the visitors to relate themselves to the past events and create empathy for the disasters happened to the building itself.

There are three key findings of historical benefits infused into the Mill City Museum. The first key finding of historical benefits reflects that adaptive reuse is able to help the public learn about history better. This finding is illustrated by the answers provided in the questionnaire by asking whether the staff know how the role of the original purpose of the Washburn A Mill contributes to the development of the city. The data collected illustrates that not only the staff are able to understand the past of the Mill City Museum, which is built on top of the former Washburn A Mill, but also the visitors have a clearer sense of the contributions made by the former Washburn A Mill. According to one of the staff, “This mill was one of the mills that improved the flour milling process to bring more consistent flour to more people.” They understand that the past of the museum itself is the mill that improved the flouring process to supply more flour to people constantly. The role of the old mill has consequently contributed to the development of the city in the flour-milling industry, being the main catalyst for the growth and development of Minneapolis.

The second key finding of historical benefits of adaptive reuse is demonstrated by asking how do the particular area, where the visitors enjoy spend the most time, help the visitors to understand more about the history of the building. The data collected reflects that the former Washburn A Mill is not only being appreciated as an aloof artifact but also its relationship to its surrounding. This statement is made based on the answer

provided by one of the staff, “Viewing St. Anthony Falls shows people why the mills were here and how the power came into the Mill.” The answer provided by the staff succinctly shows their understanding of how the Mississippi River and St. Anthony Falls were vital to bring hydroelectric to sustain the mill and supply food to the people.

The third key finding of historical benefits is about how the users are able to relate what they learned about history to their personal experiences. This finding is rendered by the conversation between the staff and the visitors when the visitor asked question like, “Where is flour made now?” This reveals the appreciation and concern of the visitors to the former Washburn A Mill, as they know how this great mill has been the vital source of food. An additional example that reflects the third key finding of historical benefits appears from the conversation between the staff and the visitors as well – the visitor told the staff that her mother had the Betty Crocker cookbook, which is a recipe book displayed at the museum and most of the food includes flour. This example informs that the visitor is able to relate the activities took place in the former old mill to her own living experiences, knowing how the mill had shaped her family’s eating habits.

The key finding of economic benefits of the Mill City Museum illustrates that adaptive reuse has the capacity of bringing an increase of business establishment around the neighborhood. On the one hand, it is sad to know that, the ticket income is insufficient to cover the maintenance of this building itself. On the other hand, it is glad to find out an increase of other forms of business around the neighborhood after the Mill City Museum was built. This increment subsequently helps to make an increase in the revenue of the businesses at its neighborhood and district. This is akin to the economic values of adaptive reuse explained earlier because it is important to consider the innate

value of adaptive reuse rather than the dollar-and-cents values or income of the building itself (see Chapter 3.5). However, it would be interesting to know what other income sources are in order to cover the expenses on the maintenance of the Mill City Museum itself.

The key finding of societal benefits of the Mill City Museum shows that adaptive reuse allows a historic building to unite people and enhance interactions. From understanding the visitors' primary motivation for visiting, it is possible to study the societal pattern and benefits of how the Mill City Museum congregates people together. The data provided reveals the visitors are mostly recommended by their friends, relatives or colleagues. This statement implies that the Mill City Museum has been one of the topics in between the conversation of the public, which also indicates the museum's popularity in the community. Another primary visiting motivations of the visitors are the appearance and history of the Mill City Museum itself, in addition to field trip organized by school. This statement underlines how important the Mill City Museum is as a place for the public and even the younger generation to learn about the history of the flour-milling industry in Minneapolis. Accompanied by the activities designated in the Flour Tower, the Mill City Museum helps create the "community ethos," which acknowledge the public of how our ancestors used to dwell in building and created what we own today (see Chapter 3.6).

8.1.2 The High Line, New York, New York

Conducting a survey research with the same set of questionnaire was initially proposed to the High Line in New York. The proposal was unfortunately turned down by Friends of the High Line, a non-profit and private organization to the New

York City Department of Parks and Recreation who supervises and maintains the High Line. The reason was given the proposed survey research is not in line with the scope of the organization. Nonetheless, the results of another survey conducted at the High Line in 2013 were provided by Friends of the High Line for reference and analysis.

As an important note prior to the survey analysis, the results of these two surveys, conducted at the Mill City Museum and High Line respectively, are incomparable at certain points because the different ways the questions were asked. Yet, it is still noteworthy to study the results obtained from the survey conducted at the High Line and examine the results of both surveys hand in hand in the later section despite the difference and variation of the questionnaires.

It is interesting to find out that the architectural design of the existing High Line, which is built upon the former elevated railroad, reveals different forms of architectural benefits from the Mill City Museum. Instead of the Mill City Museum performing as a tool to delineate the boundaries between the old structure and the contemporary addition, the High Line merged the old and the new to the extent that it is difficult to discern one from the other. In addition, the architectural design of the High Line provides the public users with a distinctive experience from what they have in other parks in the city of New York. This tendency is associated with the programs and activities injected into the High Line even if those are not necessarily the reason for the users to visit the High Line. It is also partly because of the decision made to repurpose the elevated railroad with a public park but not other functions. The High Line, as a public park suspended 30 feet above from the street level, impeccably has offered the users a closer look at the city of New

York with a more tranquil atmosphere. This statement is succinct by knowing how the users describe the High Line with positive words or phrases: innovative, peaceful, unique, city, and views, etc. To highlight the point of architectural benefits of the High Line, it shows that adaptive reuse is able to create a unique spatial experience that is different from other public parks and thus anchors the public users to stop by.

The cultural benefits of an adaptive reuse project are only perceptible if the latter function is practicing a similar activity as the former (see Chapter 3.2). While it is impossible to reproduce what the former railroad used to be in the contemporary High Line, the Friends of High Line intends to offer opportunity for the users to learn about the High Line's history through different forms of activities: walking tours, lectures, and talks. The Friends of the High Line conducts additional activities, such as art exhibition or installations, performing arts programs, film screenings, and family programs and activities. However, history-related activities are less popular or known. What the visitors usually do at the High Line is to merely take a stroll and visit the art exhibition or installations. What they prefer to do at the High Line will not help them to learn about the history of the High Line. This occurrence also shows the downside of the varieties of activity offered by the High Line, which aims to be a diversified public space to congregate people from all places and ages.

As explained in Chapter 3.3, the historical benefits of an adaptive reuse project is only perceptible holistically if the contemporary society acknowledges of how a particular activity or function was conducted and supported with the features or remnants from the old structures. Owing to the users' least interests in involving in those High Line's history related activities, we conclude that the High Line is not a successful

example of adaptive reuse from the point of view that convey values of a historic site despite the efforts and attempts of the Friends of the High Line. By not learning about the High Line's history, the users who visit the High Line may not be able to know how significantly the former railroad used to contribute to the city development and forge the contemporary city of New York. However, choosing not to participate in or value the history related activities do not imply history is not important to the people.

One of the most successful aspects of the High Line is the economic benefit brought to not only the High Line itself but also the neighborhood. This is worth of contemplation – the High Line has the potential to revitalize the economic development of its neighborhood, while it is a type of adaptive reuse for educational or memorial purpose without the involvement of commercial aspect. Although the High Line is set up as a public park with free admission, renting out part of the 1.45 miles High Line to other businesses – such as press events, private parties, and interactive installations, etc. – has impeccably become a great source of income to maintain the High Line itself. This strategy does not only help to increase revenue, but also add a distinctive and composite atmosphere to the High Line, making it unique to the public users. The economic benefits of the High Line also extend to its neighboring businesses and attractions. As indicated in the survey result provided by the Friends of the High Line, the numbers of users that visit a shop, restaurant, or bar in that area has doubled as compared to the past years. Another economic value brought by the High Line is through tourism. Although the High Line continues to draw users from local and out-of-town at the same time, the numbers of users from out-of-town or even other countries outweigh those of the locals. This

statement implies that the High Line has been successfully performing as a tourist attraction and a must-see destination for the tourists.

While the High Line performs as a must-see destination for the tourists, it is conspicuous that it carries societal benefits at the same time, as it congregates people from different ethnicities together. As resulted from the survey, more users are drawn to the neighborhood specifically to visit the High Line, which indicates the High Line itself is performing as a magnet for that area for congregation. One thing very similar to the Mill City Museum is most of the users learn about the High Line from their friends, relatives, or coworkers. In addition to word of mouth, the visitors learn about the High Line from tourist brochure about New York's tourism. Just as the Mill City Museum, the High Line has been one of the topics between the conversations among the public. It also indicates the positive impression of the High Line creates to its public users. One thing nevertheless different from the Mill City Museum is the High Line barely informs its "community ethos" to the public, as the activities offered at the High Line do not practice what the former railroad used to carry. However, the results from the survey reflects that most of the users are more likely to visit the High Line with their significant others and children instead of friends. This statement implies that the family programs and activities offered at the High Line is performing as a great tool to attract the families to come and engage in the park, making the High Line a family-oriented public space and promoting a healthier community.

8.2 Comparing the Findings of Adaptive Reuse across Different Types

After analyzing the results of both surveys conducted at the Mill City Museum and High Line respectively, this section aims to compare the two hand in hand. It will be

interesting to study the effectiveness of adaptive reuse for different purposes and cases: the Mill City Museum is a case to be reused for commercial and education or memorial purposes whereas the High Line is another case to be reused for solely education or memorial purposes.

The survey analysis above reveals that the Mill City Museum is capable of influencing the contemporary society by bringing different aspects of value: architectural, cultural, historical, economic, and societal. On the other hand, the High Line also ushers in certain aspects of value like economic and societal, but it shows little to no values in terms of architectural, cultural, and historical aspects. Although the architectural design of the High Line is capable of providing the users with distinctive experiences, which distinguish the High Line from the other public parks in New York City, it is uncertain whether or not the remnants of the railroad perform as an assisting tool for the users to delineate the boundaries between the past and present. At least this uncertainty is addressed by questionnaire, which might also reflect the Friends of the High Line's mission, which pays little to no attention to whether the remnants of the railroad contribute in conveying the High Line's history or creating unique experiences for the users. If this is the case, perhaps it might have failed the architects' design intentions in meticulously blending the remnants of railroad with the contemporary design and additions. Without the attempt of engaging the users with the remnants of the railroad or acknowledging the roles of the railroad, the remnants from the bygone society would serve like ornamentation to the contemporary society instead of the root for the contemporary society to grow.

It is surprising to find out that the Mill City Museum [a reuse for commercial and education or memorial purposes] plays a better role than the High Line [a reuse for education or memorial only] in educating the public about the history of the building or structure itself. This tendency induces the integration of “commercial” purpose might be the trigger for the remarkable accomplishment of the Mill City Museum. When a historical site is reused and incorporated with commercial purpose, especially a museum, the functions or programs to be injected into the adaptive reuse building have to work to its fullest potential to acknowledge the public users of what they are supposed to know. This explanation is akin to buying a service at a restaurant – the customers walk in and pay for the food and service, so what the restaurant provides have to live up to the expectation of the customers and every penny paid. The visitors of the Mill City Museum mostly aim to learn history during their visiting, and thus the programs in the museum are planned in a way to help the visitors learn history better.

However, the collection of artifacts at the permanent exhibit gallery features the downside of the Mill City Museum, especially the history of flour milling. Although the permanent exhibit includes different kinds of artifact of the former mill, all the artifacts are placed randomly without showing any connection between each of the artifact to the context. The artifacts are dead and mute, which are unable to communicate their functions to the visitors of the museum. If the journey of the exhibition had been organized in the flow of the process of flour milling and the arrangements of the artifact show connection to the context, the visitors would have a clearer image of how the mill worked and what it was in operation.

On the contrary, the cofounders of Friends of the High Line, Robert Hammond and Joshua David, set forth to protect the elevated railroad from demolition because they do not want the significant structure of the city vanishes into memory, that is, they recognized the value but they did not acknowledge the historical value and benefits of the High Line as an adaptive reuse project. Thus, the historical site is reused as the High Line, which is a public park with free admission that welcomes whoever just wants to visit and do whatever they want at the park with no obligation. As a public space, the High Line offers a great deal of freedom for the public to go there and just to people watch, dine, and relax, etc. but not necessary to learn about the High Line's history. This idea sets forth with a desire to protect historic relics but gradually leads to the tendency of turning the historic site as a solely congregation place but not a place to learn about the High Line's history. In other words, the High Line is reused for memorial purpose but not really for education, especially for the founder of the High Line but not inasmuch to the public. This yields another idea that memorial and educational are not exactly the same, which should not be placed into the same category. For memorial purposes, the values of adaptive reuse are only perceptible by the people who appreciate high value in a particular history. However, in order to reuse a historic relic for educational purposes, more contemplation is required to amplify the ways of educating the public to learn about the particular history.

To conclude, by learning and comparing the findings from the surveys, the Mill City Museum appears to be a successful example of adaptive reuse, which creates an "internal connection and communication" and educates the museum visitors in learning about history. The achievement of the Mill City Museum inevitably is grounded on the

architect, Thomas Meyer's effort, who had this instinct in his mind when he went about the adaptive reuse project. This salient example designed by Meyer highlights that when a building is reused as commercial and educational or memorial purposes, it is possible to convey all its roles and benefits in different perspectives. On the contrary, it is interesting to learn that although the intention of the Friends of the High Line's cofounder was to protect the relic from demolition, as they were captivated by the history of the High Line, but the effort of keeping and conveying the High Line's history is not inasmuch as their initial appreciation of the narrations of the High Line. This implies that the success of adaptive reuse does not depend on the category where it belongs, but rather on the perceptions of the architects and designers, or even the owner property – how they want the adaptive reuse project to be.

CONCLUSION

Approaching to the end of the discussion of this work, we understand that each time period creates its own “spirit of the epoch,” which is reflected in the distinctive architectural styles of each era. And in the late nineteenth to early twentieth-century, our ancestors were aware that they have gone too far that they began to regard for the significant historic features and buildings. This awareness led to the occurrence of historical consciousness and the seeking of ways to reintroduce and perceive history in a contemporary method. This kind of historical consciousness yielded the call for historic preservation and served as key to allow adaptive reuse rolls in as a strategy to show reverence to the historic properties while enabling them to play vital functions in the contemporary society. Thus, adaptive reuse has been developed and explored in full dimensions to find out its potentials and possibilities in assisting urban development by reconciling the past relics and present additions.

However, for what adaptive reuse intends to do, blending the past relics to present additions does not assure that it is answering to the call of historical consciousness and preservation. This is partly because solely keeping the physical historic relics intact does not help to tell the story of the past. Only through meticulously engaging the contemporary society with the former activities conducted at that particular historic site, is adaptive reuse able to perform to its fullest potential in rendering the narratives of the past. Adaptive reuse is believed to be the best philosophical treatment among other treatments, as it does not only preserve the relics passed down by the ancestors, but also allow to relics to perform vital functions in the contemporary society as a continuation the narrations of the human development.

Examining different case studies in this work helps us to understand how the architects go about adaptive reuse, as well as their attempts and methodologies at borrowing adaptive reuse as a tool for helping the public learn about history better, establishing connection between us and our past, and refashioning the past for contemporary appropriateness. The potential of adaptive reuse is studied even more thoroughly by categorizing the case studies according to their reused purposes. The survey research included in this work also helps us to fully understand how the public is using the reused historic sites and whether or not the public is able to discover the values infused in adaptive reuse projects. This survey is imperative because most of the times when architects intend to control the humans' behavior and activities through their design, the users may not be able to perceive the architects' design intentions or use the space as the architects wish.

Having fully developed its expertise and popularity, adaptive reuse seems to have grown as an architectural style of this epoch. The efforts of the federal, state, and local government in promoting adaptive reuse are conspicuous while the ways of architects go about adaptive reuse are becoming more and more innovative. If we were deemed to regard for the past and have architecture revolved around the past relics, this would be a great platform to start contemplating what the subsequent architectural style will be in the near future.



Figure 1 Anthemius of Tralles and Isidorus of Miletus, Exterior view of Hagia Sophia, Istanbul, Turkey, 532-537. Available from: ARTstor, <http://0-library.artstor.org.library.unl.edu/library/secure/ViewImages?id=%2FThWdC8hIywtPygxFTx5TnQkVnohdg%3D%3D&userId=hDFDejkn&zoomparams=> (accessed September 17, 2014).



Figure 2 Reconstruction drawing of interior showing shade awning and gladiators fighting wild beasts, Flavian amphitheater, Colosseum, Rome, Italy, 1st century BCE. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/ahis101/id/383> (accessed March 28, 2015).



Figure 5 The Great Hamam was reused as a multifunctional space, Pristina, Kosovo, 2007. Available from: Republic of Kosovo, http://dtk.rks-gov.net/tkk_objekti_en.aspx?id=1571 (accessed April 21, 2015).

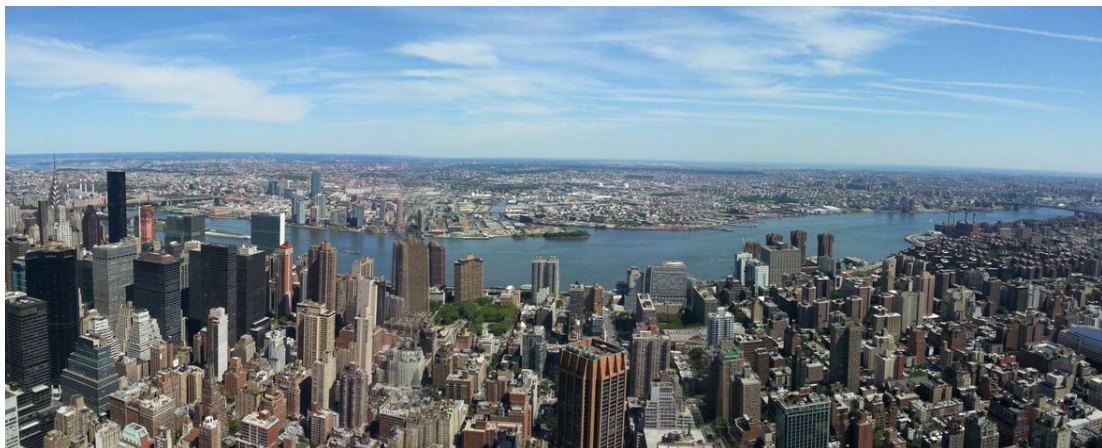


Figure 6 Aerial view of New York City viewed from Empire State Building, New York City, New York. Photography by Tshui Mum Ha, 2013.



Figure 7 Aerial view of London, London, United Kingdom. Available from: ArchDaily, <http://www.archdaily.com/tag/new-london-architecture/> (accessed April 2, 2015).



Figure 8 Soldiers of Vietnam War aiding wounded comrades. The first sergeant of A Company, 101st Airborne Division, guided a medevac helicopter through the jungle to retrieve casualties near Hue in April 1968, Hue, Vietnam. Available from: CNN, <http://www.cnn.com/2014/06/20/us/vietnam-war-five-things/> (accessed April 2, 2015).



Figure 9 Aerial view of Vietnam Veterans Memorial designed by Maya Lin, Vietnam Veterans Memorial, Washington, DC, c. 1982. Available from: MayaLinStudio, <http://www.mayalin.com/> (accessed April 2, 2015).



Figure 10 The names of the killed or missing armies were inscribed on this black granite wall, Vietnam Veterans Memorial, Washington, DC, c. 1982. Available from: MayaLinStudio, <http://www.mayalin.com/> (accessed April 2, 2015).



Figure 11 Domestication of animals as a mode of transportation, Omnibus, London, United Kingdom, late nineteenth-century. Available from: Geography of Transport System, <https://people.hofstra.edu/geotrans/eng/ch6en/conc6en/omni.html> (accessed April 2, 2015).

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Figure 12 Locomotive 710 is one of the first served passenger steam trains in the 1920s, 710's hilltop display at Pioneers Park, c. 1960s. Available from: TrainWeb, <http://www.trainweb.org/screamingeagle/gallery/cbq710.html> (accessed April 5, 2015).

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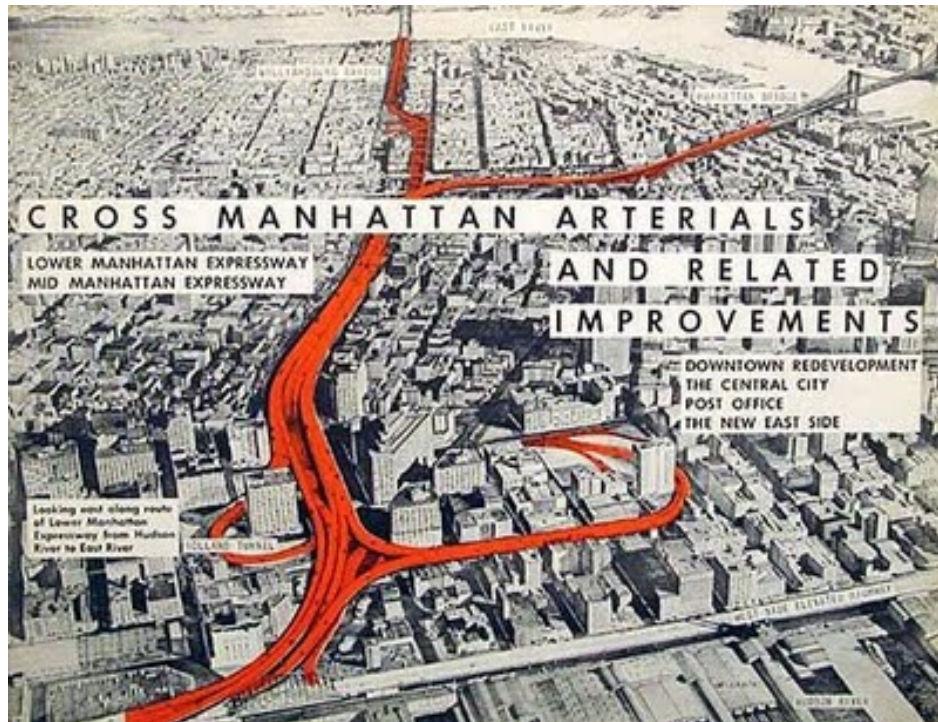


Figure 13 Cover of a 1959 brochure, Robert Moses proposed three cross-Manhattan expressways to solve traffic flow, New York, New York, c. 1959. Available from: ColumbiaMagazine, <http://www.columbia.edu/cu/alumni/Magazine/Winter2007/moses.html> (accessed April 5, 2015).



Figure 14 General view of Piazza Anfiteatro looking west. The Piazza Anfiteatro in Lucca is an example of traditional urban form. It was built as an amphitheater and some of the fragments of the amphitheater are seen around the perimeter, which are incorporated into the everyday residential and commercial buildings that define the space now, Lucca, Tuscany, Italy. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/archivision/id/36043> (accessed April 5, 2015).

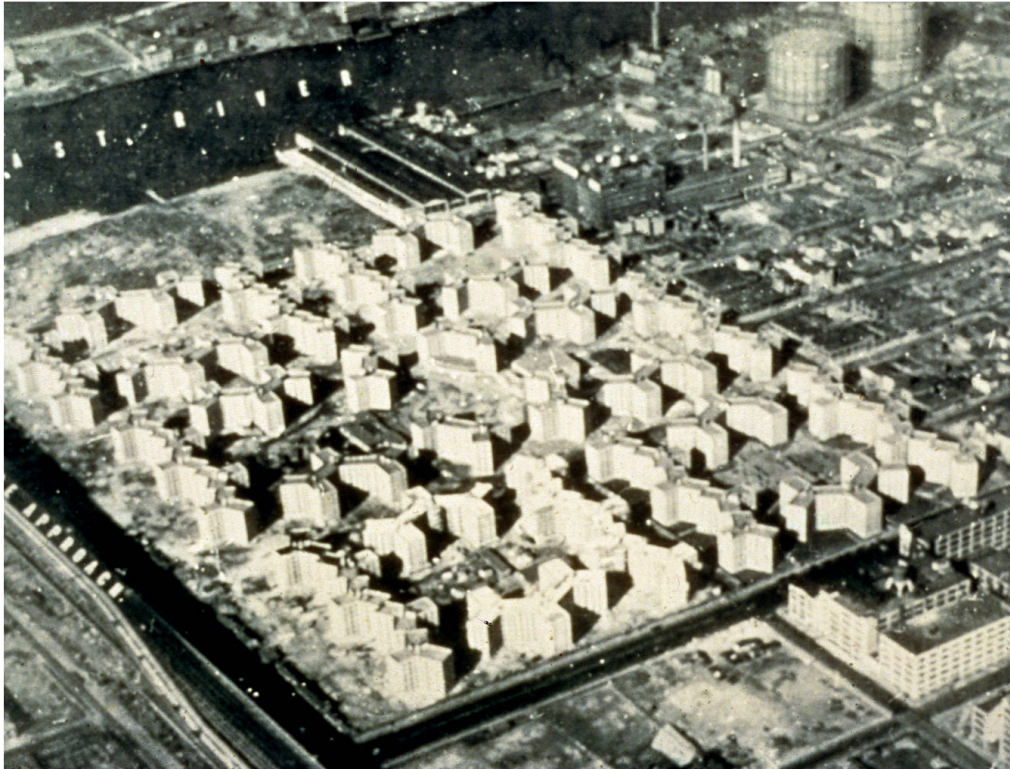


Figure 15 Aerial view of Queensbridge. New York City housing projects. New York City is a great example of Modernist urban form development due to the designated grid system, New York, New York. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/gerckens/id/651> (accessed April 5, 2015).



Figure 16 Execution of King Louis XVI in the Place de la Revolution. Available from: HistoryToday, <http://www.historytoday.com/william-doyle/execution-louis-xvi-and-end-french-monarchy> (accessed April 5, 2015).



Figure 17 *Angelus Novus* painted by Paul Klee in 1920. Available from: The New York Review of Books, <http://www.nybooks.com/articles/archives/2014/sep/25/walter-benjamins-angel-hitler/> (accessed April 5, 2015).



Figure 18 Independence Hall, Chestnut Street façade, Philadelphia, Pennsylvania. Available from: National Park Service, <http://www.nps.gov/inde/learn/historyculture/places-independencehall.htm> (accessed April 5, 2015).



Figure 19 The Declaration of Independence, Independence Hall, Philadelphia, Pennsylvania, c. 1776. Available from: American History, <http://www.let.rug.nl/usa/documents/1776-1785/the-final-text-of-the-declaration-of-independence-july-4-1776.php> (accessed April 5, 2015).



Figure 20 The world's first national park that covers over two million acres of public land in three different states, Yellowstone. Available from: CBSNews, <http://www.cbsnews.com/news/toddler-dies-from-gunshot-in-yellowstone-park/> (accessed April 5, 2015).



Figure 21 An overview of Faneuil Hall with a glass retail pavilion left of Faneuil Hall, Faneuil Hall Marketplace, Boston, Massachusetts, 2014. Available from: New York Times, http://www.nytimes.com/2014/12/03/realestate/restoration-in-store-for-bostons-faneuil-hall-marketplace-.html?_r=0 (accessed April 6, 2015).



Figure 22 Frank Lloyd Wright, View from the Street of Frank Lloyd Wright home and studio, Oak Park, Illinois. Available from: Frank Lloyd Wright Trust, <http://www.flwright.org> (accessed September 17, 2014).

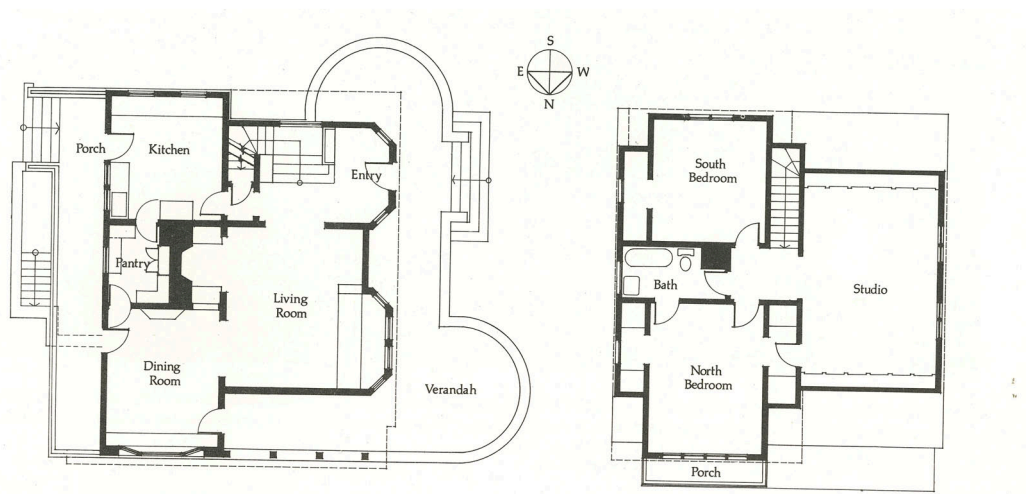


Figure 23 Frank Lloyd Wright, First Floor Plan (left) and Second Floor Plan (right) in 1889. From: Frank Lloyd Wright Home and Studio Foundation. *The Plan for Restoration and Adaptive Reuse of the Frank Lloyd Wright Home and Studio*. Chicago: University of Chicago Press, 1978. 21.

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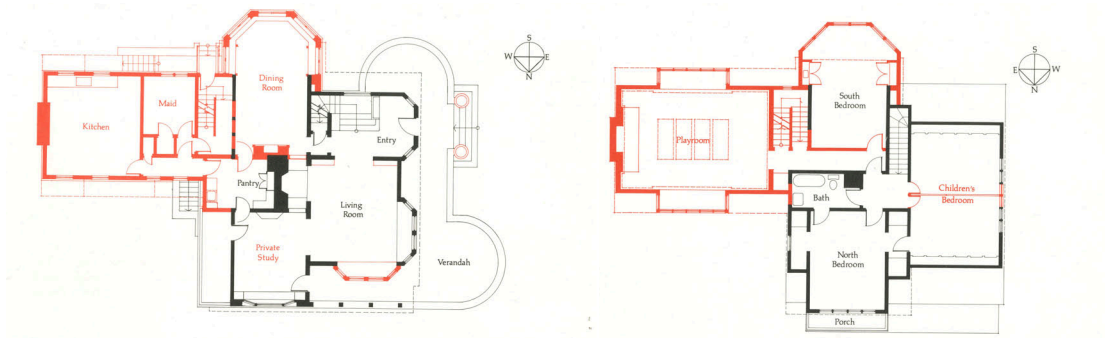


Figure 24 Frank Lloyd Wright, First Floor Plan (left) and Second Floor Plan (right) in 1895. Available from: Frank Lloyd Wright Home and Studio Foundation. *The Plan for Restoration and Adaptive Reuse of the Frank Lloyd Wright Home and Studio*. Chicago: University of Chicago Press, 1978. 23-24.

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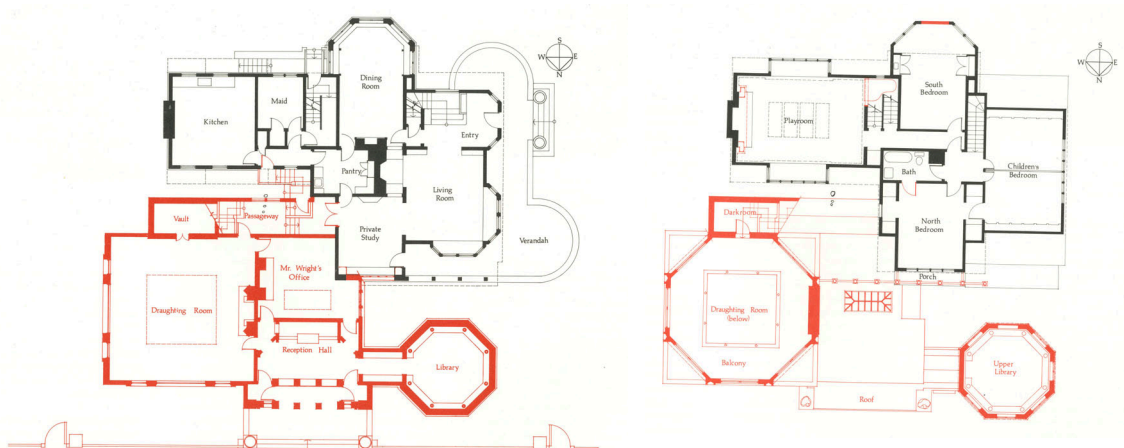


Figure 25 Frank Lloyd Wright, First Floor Plan (left) and Second Floor Plan (right) in 1898. Available from: Frank Lloyd Wright Home and Studio Foundation. *The Plan for Restoration and Adaptive Reuse of the Frank Lloyd Wright Home and Studio*. Chicago: University of Chicago Press, 1978. 29-30.

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Figure 26 Aerial view showing inner circle of megaliths and horseshoe formation of megalithic trilithons, Stonehenge, Wiltshire, England, ca. 2550-1600 BCE. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/architect/id/281> (accessed April 6, 2015).



Figure 27 The Mound of Vendôme by David Gissen, Paris, France, 2012. Available from: World Architects, http://www.world-architects.com/architecture-news/found/The_Mound_of_Vendome_596 (accessed April 6, 2015).



Figure 28 The Old Baroque building of Jewish Museum Berlin that first served as the regal Court of Justice, Berlin, Germany, c. 2009. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/archivision/id/51536> (accessed April 6, 2015).



Figure 29 The New York University Department of Philosophy is adapted from the six-story nineteenth-century warehouse, NYU Department of Philosophy, New York, New York, 2007. Available from: Steven Holl Architects, <http://www.stevenholl.com/project-detail.php?id=21> (accessed April 6, 2015).



Figure 32 Great Pyramids of Giza, Egypt, built 2552-2471 BCE. Available from: ContentDM, <http://contentdm.unl.edu/cdm/singleitem/collection/archivision/id/20556/rec/60> (accessed April 6, 2015).



Figure 33 Newly restored 5th Avenue exterior of St. Patrick's Cathedral, St. Patrick's Cathedral, New York, New York, 2015. Available from: St. Patrick's Cathedral, <http://saintpatrickscathedral.org/photoalbums/restoration-photos> (accessed April 6, 2015).

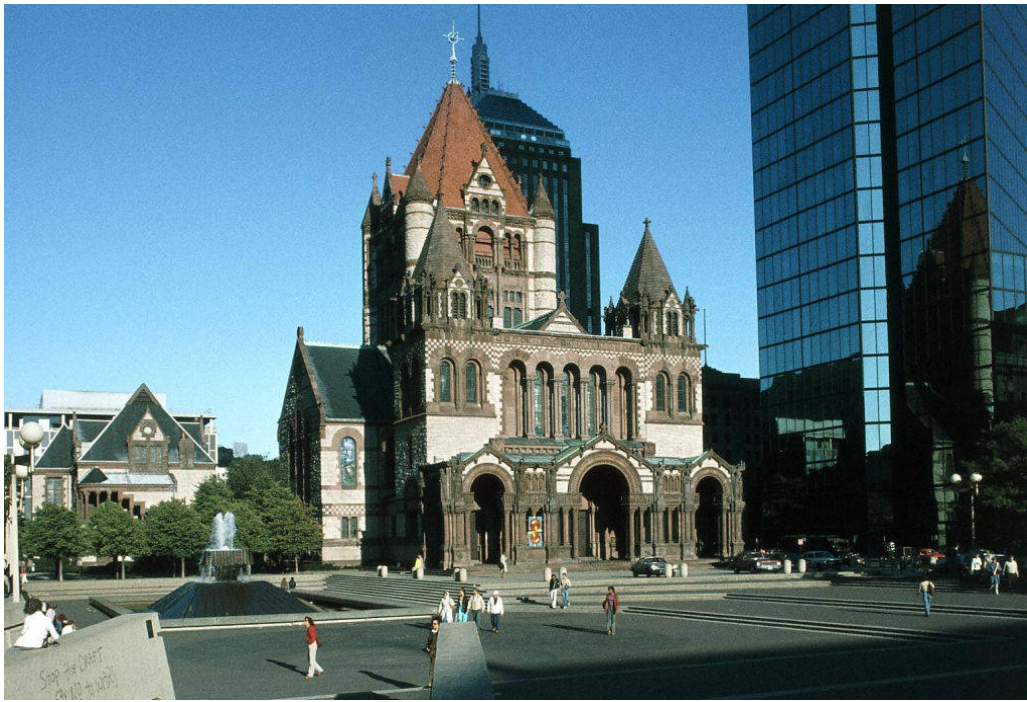


Figure 34 Overall view of Trinity Church in Boston, Massachusetts, built 1872-1877. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/architect/id/1211> (accessed April 6, 2015).



Figure 35 A new staircase with perforated metal railing is inserted to the former six-story nineteenth-century warehouse, NYU Department of Philosophy, New York, New York, built 2007. Available from: Steven Holl Architects, <http://www.stevenholl.com/project-detail.php?id=21> (accessed April 6, 2015).



Figure 36 Tate Modern Gallery designed by Herzog & de Meuron, London, England. Photography by Tshui Mum Ha, 2014.



Figure 37 The light beam glass structure on top of the tower, Tate Modern Gallery, London, England. Available from: ContentDM, <http://contentdm.unl.edu/cdm/ref/collection/lon1800/id/2783> (accessed April 6, 2015).



Figure 39 The new zig-zag configuration designed by Daniel Libeskind is contrasting with the former Old Baroque building, Jewish Museum, Berlin, Germany, 2001. Available from: Studio Libeskind, <http://libeskind.com/work/jewish-museum-berlin/> (accessed April 6, 2015).

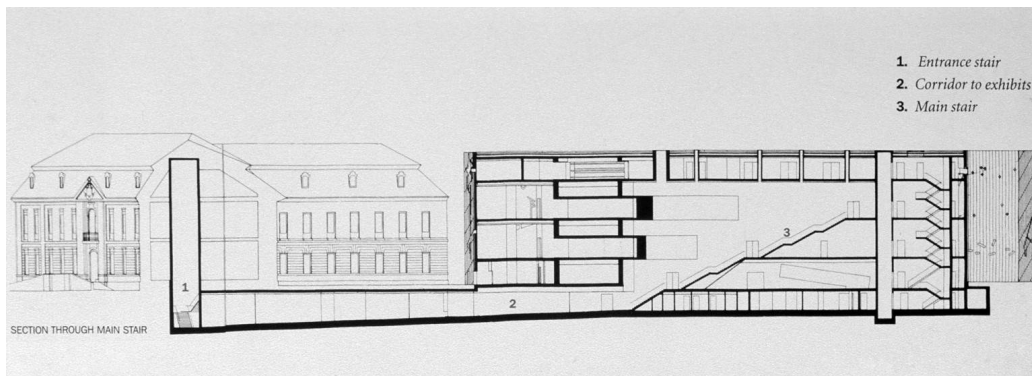


Figure 40 The underground vertical staircase and horizontal corridor that connect the new addition to the old Baroque building, section through main stair of the Jewish Museum, Berlin, Germany. Available from: James S. Russell, "Project Diary: Daniel Libeskind's Jewish Museum in Berlin speaks to a history that is both rich and tragic," in *Architectural Record*, v.187 (Jan-March 1999): 87.



Figure 41 Southwest façade after intervention by David Chipperfield, Neues Museum, Berlin, Germany, built 2009. Available from: Françoise Astorg Bollack. *Old Buildings New Forms: New Directions in Architectural Transformation*. New York: Monacelli Press, 2013. 216.

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Figure 42 The ruin of northeast façade after World War II, Neues Museum, Berlin, Germany, c. 1964. Available from: Françoise Astorg Bollack. *Old Buildings New Forms: New Directions in Architectural Transformation*. New York: Monacelli Press, 2013. 216.

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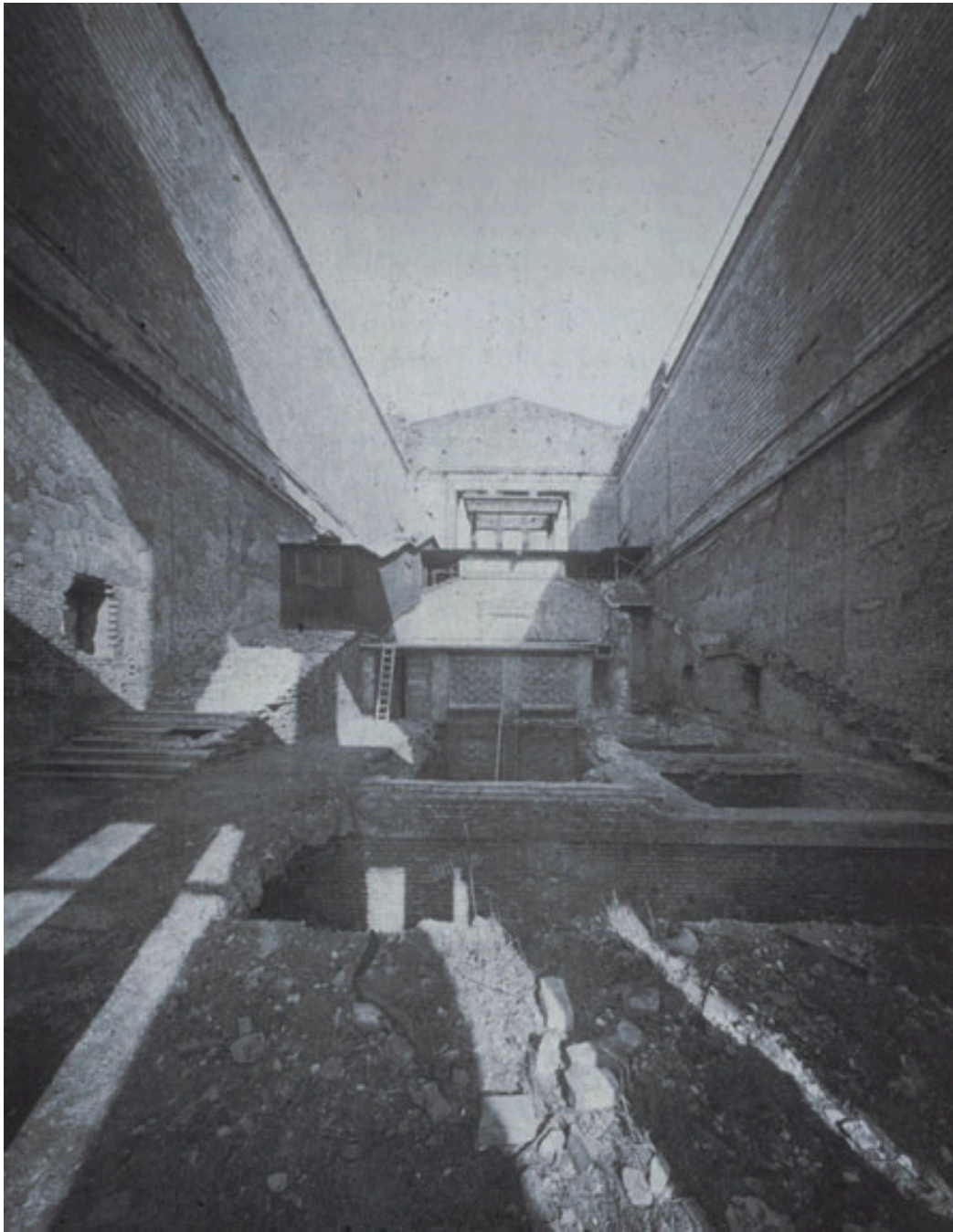


Figure 43 The destroyed staircase hall before rebuilding, Neues Museum, Berlin, Germany. Available from: David Chipperfield Architects, http://www.davidchipperfield.co.uk/project/neues_museum (accessed April 6, 2015).

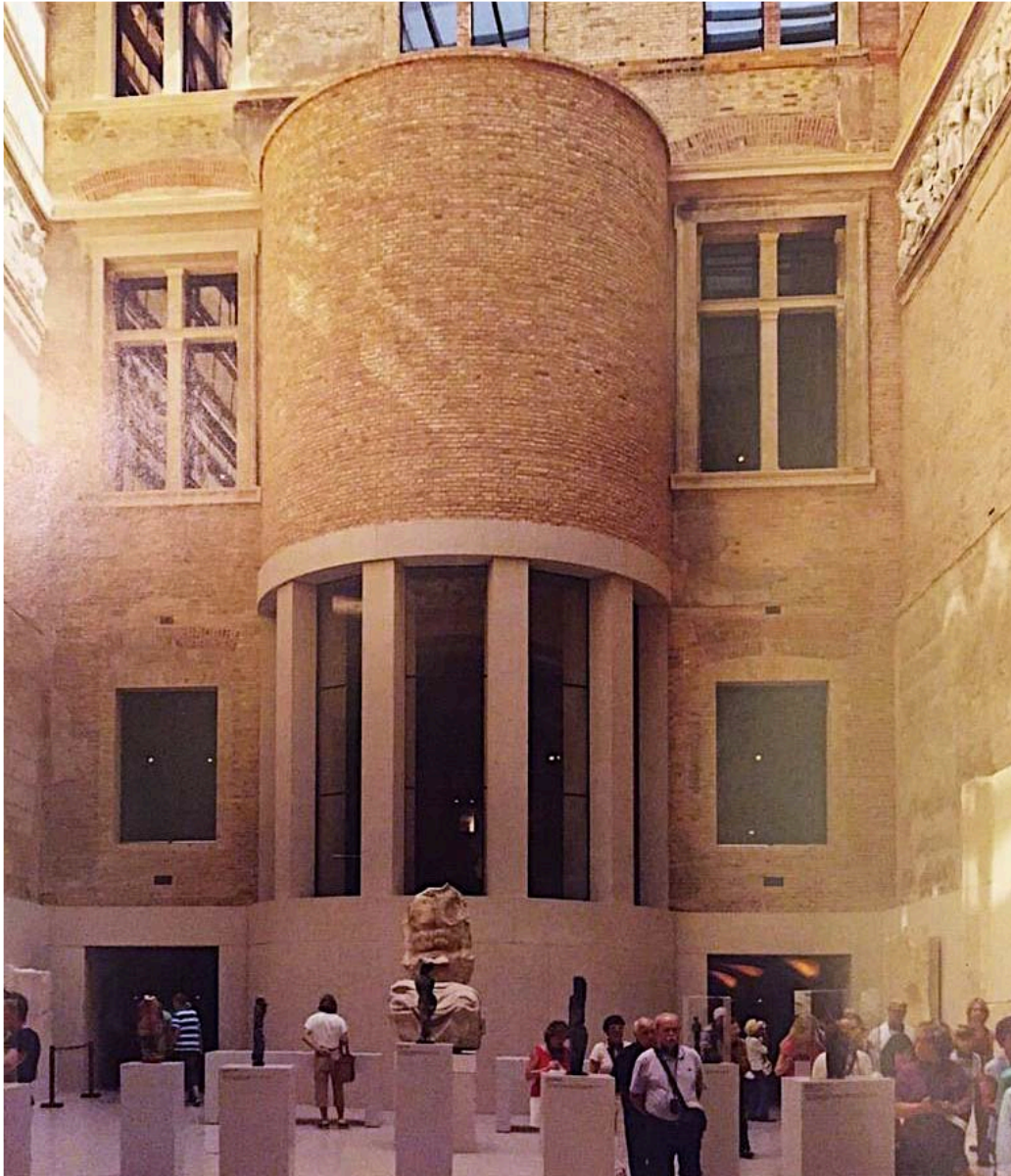


Figure 44 The courtyard after intervention by David Chipperfield, Neues Museum, Berlin, Germany, built 2009. Available from: Françoise Astorg Bollack. *Old Buildings New Forms: New Directions in Architectural Transformation*. New York: Monacelli Press, 2013. 218.

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Figure 45 The Ames Building in 1893, Boston, Massachusetts. Available from: Ames Building, <http://www.shepleybulfinch.com/project/ames-building/LM9/> (accessed October 1, 2014).



Figure 46 The Ames Building, the semi-circular arches with intricate stone carvings on top of the openings, Boston, Massachusetts. Available from: Hudson River Films, <http://hudsonriverfilms.com/david-rockwell/> (accessed October 1, 2014).



Figure 47 The detailed carved stone on the exterior of the Ames Building, Boston, Massachusetts. Available from: Cambridge Seven Associates, Inc., <http://www.c7a.com/work/the-ames-hotel> (accessed October 4, 2014).



Figure 48 The modern design of the lobby hall, The Ames Hotel, Boston, Massachusetts. Available from: Cambridge Seven Associates, Inc., <http://www.c7a.com/work/the-ames-hotel> (accessed October 4, 2014).



Figure 49 The modern design of the apartment bedroom suite, The Ames Hotel, Boston, Massachusetts. Available from: Cambridge Seven Associates, Inc., <http://www.c7a.com/work/the-ames-hotel> (accessed October 4, 2014).



Figure 50 The ambience created by the metal chandelier at the lobby hall, The Ames Hotel, Boston, Massachusetts, 2010. Available from: 3rings Designer Pages Media, <http://media.designerpages.com/3rings/2010/03/09/mirror-chandelier-by-studio-rosolights-up-the-lobby-at-bostons-ames-hotel/> (accessed October 8, 2014).

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Figure 51 The restored fireplace and Romanesque arches at the Apartment Bedroom, The Ames Hotel, Boston, Massachusetts, 2010. Available from: Ames Boston Hotel, <http://www.ameshotel.com/photo-gallery/> (accessed October 8, 2014).



Figure 52 The “pepper’s ghost” at The Ames Hotel, Boston, Massachusetts, 2010. Available from: Hudson River Films, <http://hudsonriverfilms.com/david-rockwell/> (accessed October 8, 2014).

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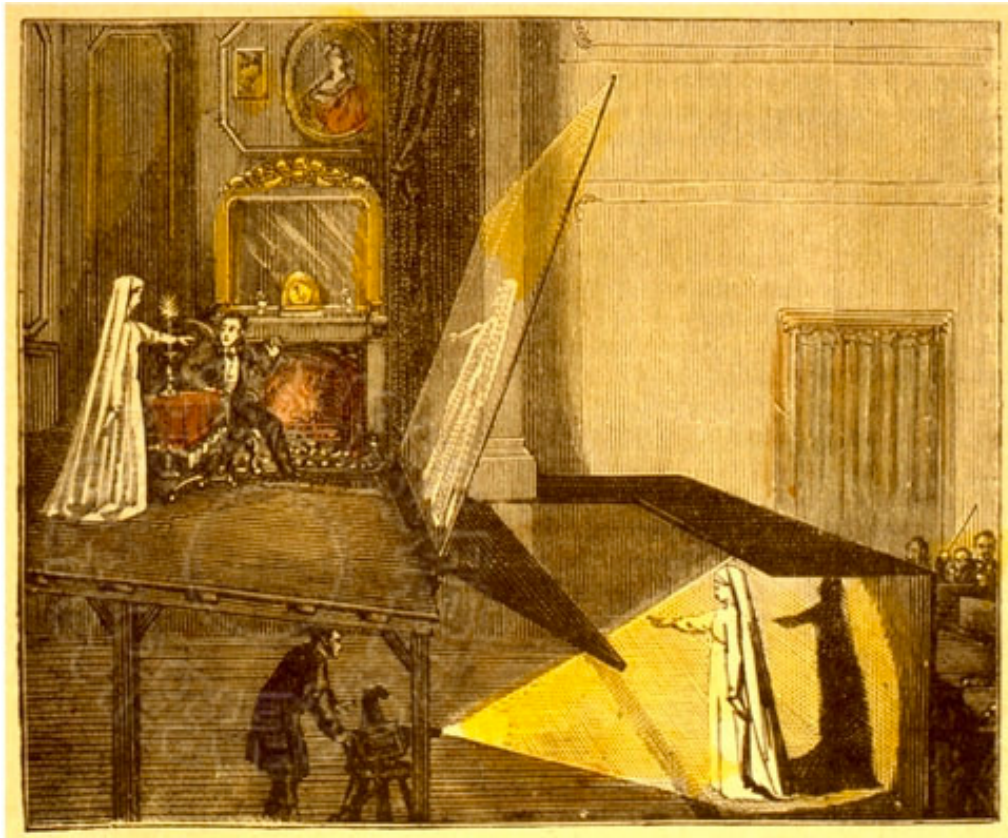


Figure 53 John Henry Pepper, The magic lantern trick “pepper’s ghost,” *The Haunted Man and The Ghost’s Bargain*, 1862. Available from: Retrograph, <http://www.retrograph.co.uk/downloads/magic-lantern-trick-peppers-ghost/> (accessed October 8, 2014).



Figure 54 Historic photographs of the four gasometers, Gasometers, Simmering, Vienna, Austria, 1899. Available from: Wiener Gasometer, <http://www.wiener-gasometer.at/en/photographs-pictures-drafts-media-pr> (accessed October 9, 2014).

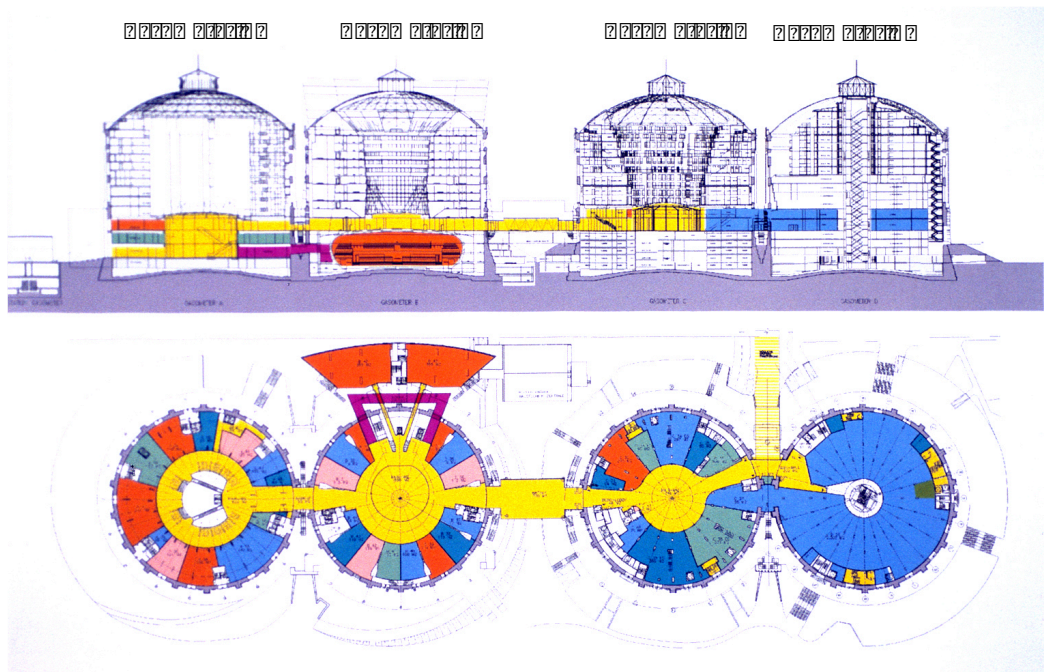


Figure 55 Coop Himmelblau, Section and Plan of Gasometers, Gasometer A by Nouvel, Gasometer B by Coop Himmelblau, Gasometer C by Manfred Wehdorn, Gasometer D by Wilhelm Holzbauer. Vienna, Austria. Built 1998-2001. Available from: ContentDM, http://0-contentdm.unl.edu.library.unl.edu/fullres/Architecture_1800-3/Volume12/51907941_20.jpg (accessed October 18, 2014).

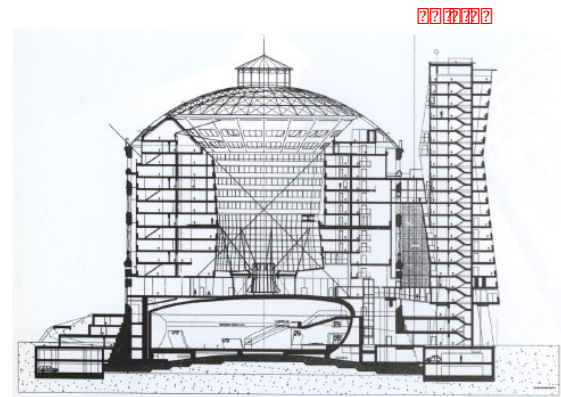
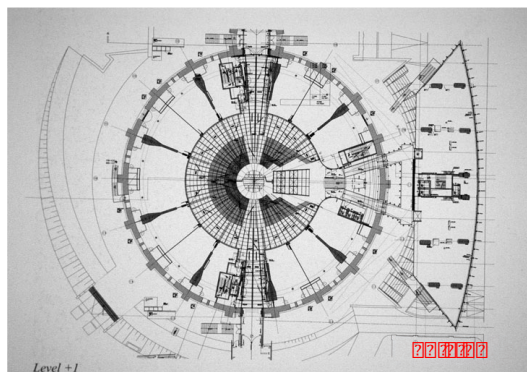


Figure 56 (left) Coop Himmelblau, Plan of the extension (shield) by Coop Himmelblau, Gasometer B by Coop Himmelblau. Vienna, Austria. Built 1998-2001. Available from: ContentDM, http://0-contentdm.unl.edu.library.unl.edu/fullres/Architecture_1800-3/Volume12/51907941_32.jpg (accessed October 18, 2014).

Figure 57 (right) Coop Himmelblau, Section of the extension (shield) by Coop Himmelblau, Gasometer B by Coop Himmelblau. Vienna, Austria. Built 1998-2001. Available from: “Coop Himmelblau: Rehabilitation of Gasometer Project, Vienna, Austria 1995-2000,” in *A+U*, issue 8 (1999): 72.



Figure 58 Coop Himmelblau, Shield Shape Tower (Unit B), Gasometer B by Coop Himmelblau. Vienna, Austria. Built 1998-2001. Available from: ContentDM, http://0-contentdm.unl.edu.library.unl.edu/fullres/Architecture_1800-3/Volume12/51907941_07.jpg (accessed October 18, 2014).

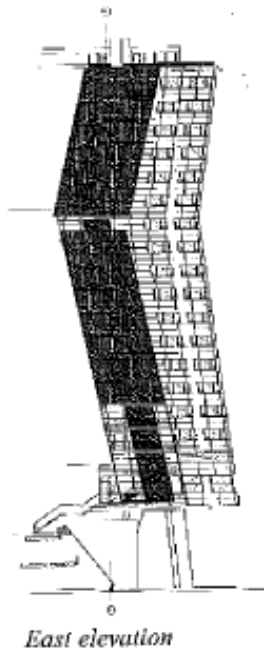


Figure 59 Coop Himmelblau, East Elevation of the Shield, Gasometer B by Coop Himmelblau. Vienna, Austria. Built 1998-2001. Available from: "Apartment building Gasometer: Coop Himmelb(l)Au, Jean Nouvel, Manfred Wehdom, Wilhelm Holzbauer, Vienna, Austria," in *GA Document*, issue 69 (2002): 74.

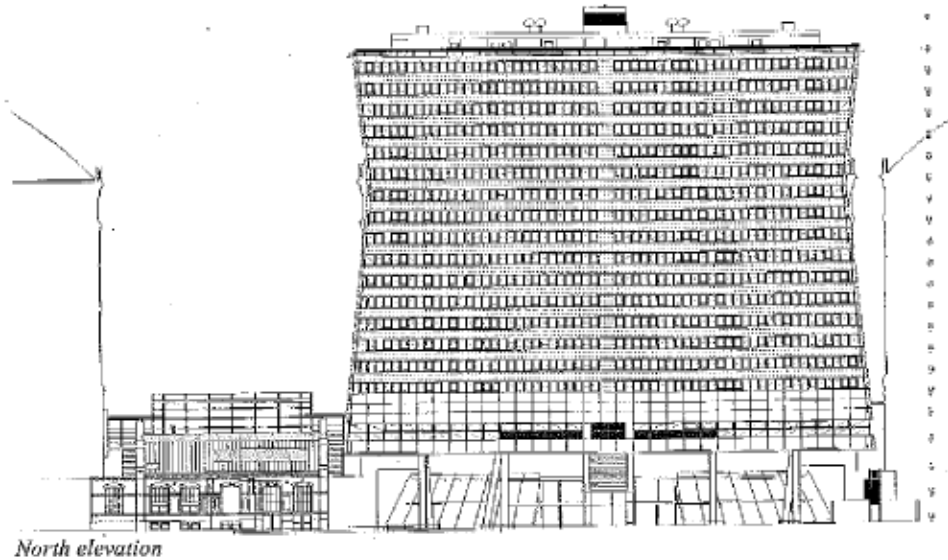


Figure 60 Coop Himmelblau, North Elevation of the Shield, Gasometer B by Coop Himmelblau. Vienna, Austria. Built 1998-2001. Available from: "Apartment building Gasometer: Coop Himmelb(l)Au, Jean Nouvel, Manfred Wehdom, Wilhelm Holzbauer, Vienna, Austria," in *GA Document*, issue 69 (2002): 74.



Figure 61 Exterior of Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: Library of Congress, <http://www.loc.gov/pictures/item/ma1642.photos.337766p/resource/> (accessed October 26, 2014).

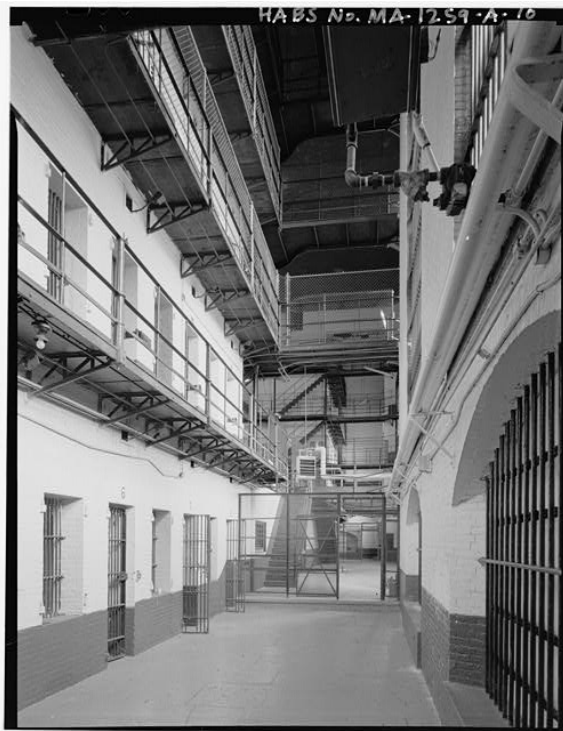


Figure 62 (right) Interior of Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: Library of Congress, <http://www.loc.gov/pictures/item/ma1642.photos.337775p/resource/> (accessed October 26, 2014).

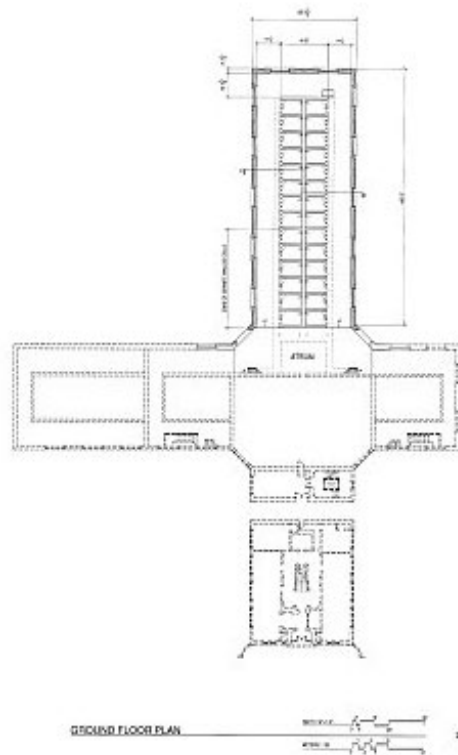


Figure 63 Ground Floor Plan of Charles Street Jail Complex, Original architectural drawings by Gridley James Fox Bryant, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: Library of Congress, <http://www.loc.gov/pictures/item/ma1642.sheet.00002a/resource/> (accessed October 26, 2014).

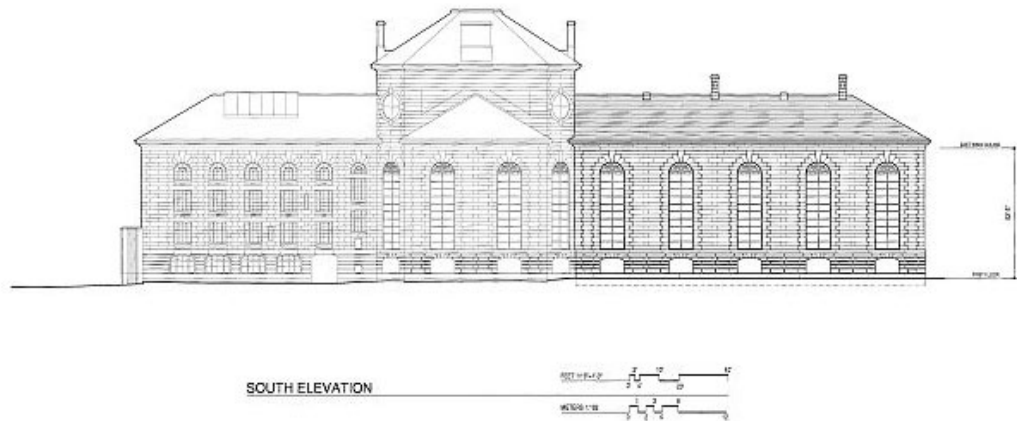


Figure 64 South Elevation of Charles Street Jail Complex, Original architectural drawings by Gridley James Fox Bryant, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: Library of Congress, <http://www.loc.gov/pictures/resource/hhh.ma1642.sheet.00005a/> (accessed October 26, 2014).



Figure 65 A cupola was included in Gridley James Fox Bryant's initial draft, Original architectural drawings by Bryant, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: The Liberty Hotel Boston, http://www.libertyhotel.com/the_hotel/history.html (accessed October 26, 2014).



Figure 66 The cupola in Gridley James Fox Bryant was taken down in 1949 to save money, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: Ann Beha Architects, <http://www.annbeha.com/the-liberty-hotel> (accessed October 27, 2014).



Figure 67 The cupola is restored by Ann Beha Architects to show reverence to Gridley James Fox Bryant's initial creative vision, Boston, Suffolk County, MA. Completed in 1851. Available from: Ann Beha Architects, <http://www.annbeha.com/the-liberty-hotel> (accessed October 27, 2014).

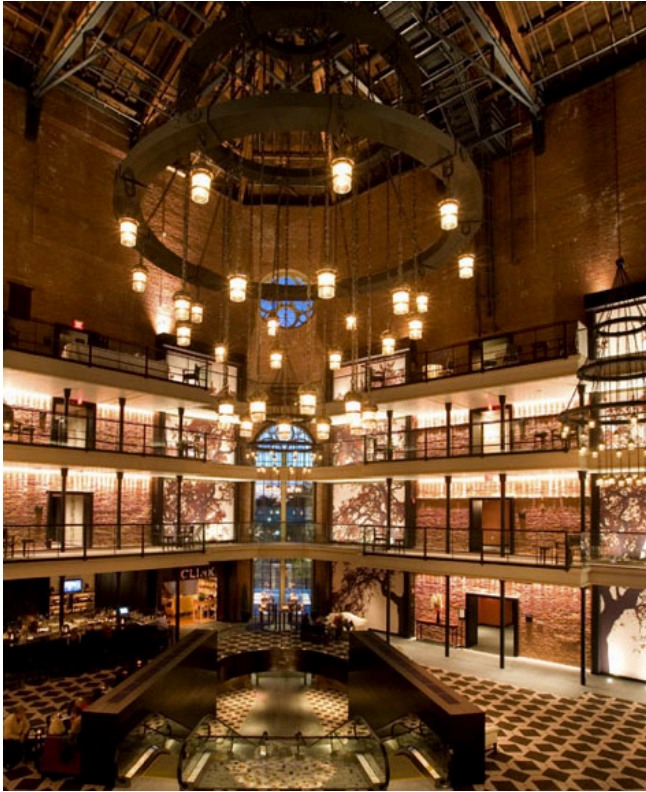


Figure 68 The former jail's central atrium has been restored and converted into the current reception lobby of the Liberty Hotel. Boston, Suffolk County, MA. Completed in 1851. Available from: Ann Beha Architects, <http://www.annbeha.com/the-liberty-hotel> (accessed October 27, 2014).



Figure 69 The former jail's central atrium of Charles Street Jail. Boston, Suffolk County, MA. Completed in 1851. Available from: Library of Congress, <http://www.loc.gov/pictures/item/ma1642.photos.337772p/resource/> (accessed October 27, 2014).

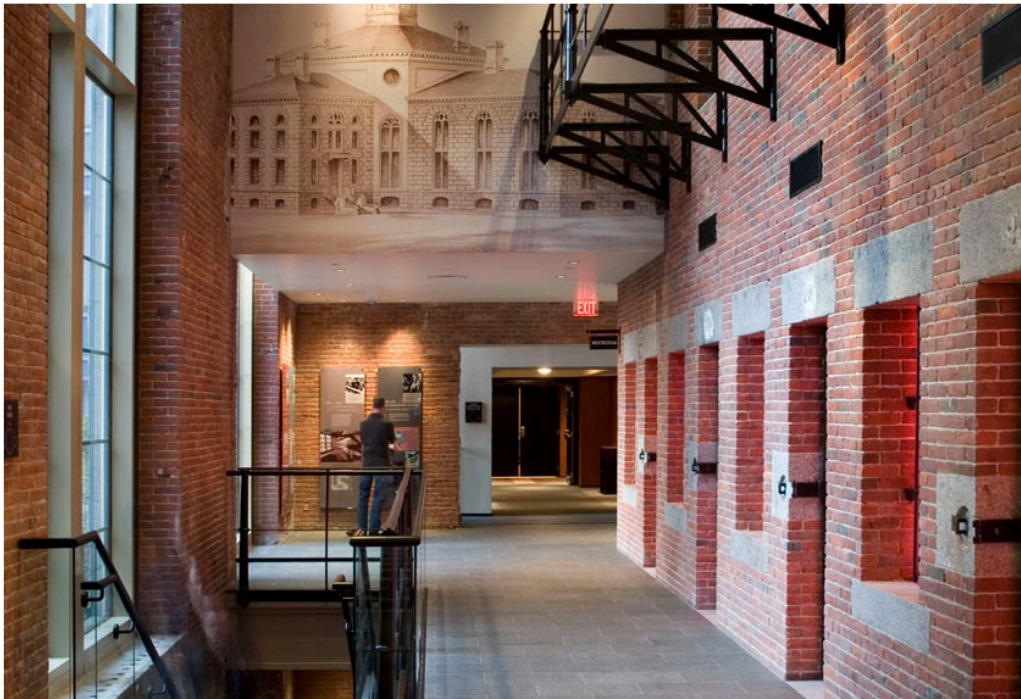


Figure 70 The Liberty Historic Center converted from the former corridor, the Liberty Hotel. Boston, Suffolk County, MA. Completed in 1851. Available from: Ann Beha Architects, <http://www.annbeha.com/the-liberty-hotel> (accessed December 14, 2014).



Figure 71 The corridor to each individual cells, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: The Liberty Hotel Boston, <https://www.youtube.com/watch?v=5uNj10c9-Js> (accessed December 14, 2014).



Figure 72 The jail's former exercise yard, Charles Street Jail Complex, Jail, 215 Charles Street, Boston, Suffolk County, MA. Completed in 1851. Available from: The Liberty Hotel Boston, <https://www.youtube.com/watch?v=5uNj10c9-Js> (accessed December 14, 2014).



Figure 73 The jail's former exercise yard is now a private landscaped courtyard, the Liberty Hotel. Boston, Suffolk County, MA. Completed in 1851. Available from: Google Map, <https://www.google.com/maps/dir//The+Liberty,+a+Luxury+Collection+Hotel,+Boston,+215+Charles+Street,+Boston,+MA+02114/@42.3621819,-71.0707971,3a,90y,146.2h,91.65t/data=!3m4!1e1!3m2!1sY7WJQtXtiF3a5RTg7Z6s9Q!2e0!4m12!1m3!3m2!1s0x89e3709853b22087:0x7969ba747d7b0543!2sThe+Liberty,+a+Luxury+Collection+Hotel,+Boston!4m7!1m0!1m5!1m1!1s0x89e3709853b22087:0x7969ba747d7b0543!2m2!1d-71.070536!2d42.361995> (accessed December 14, 2014).

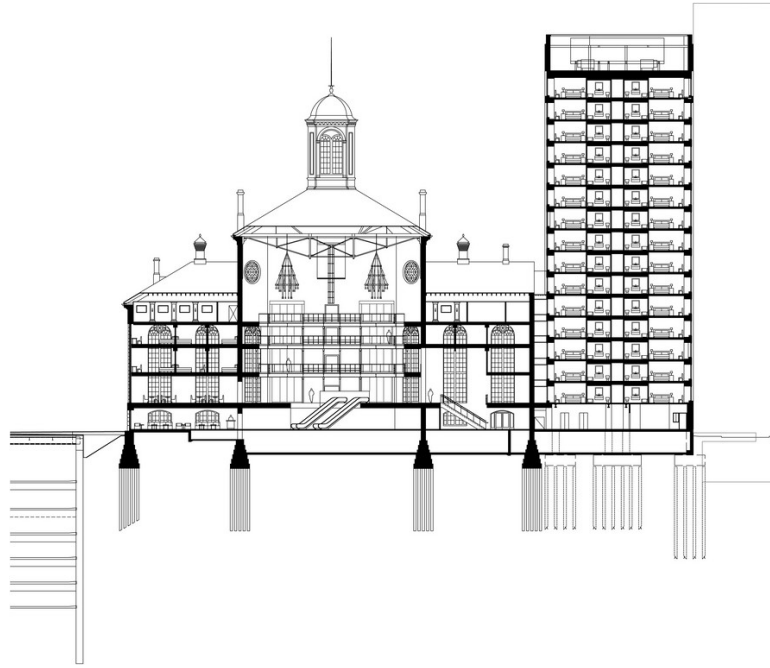


Figure 74 The elevation shows the new addition to the former Charles Street Jail as the guest rooms of the Liberty Hotel, Boston, Suffolk County, MA. Completed in 1851. Available from: The Liberty Hotel, <http://openbuildings.com/buildings/liberty-hotel-profile-3653> (accessed October 27, 2014).

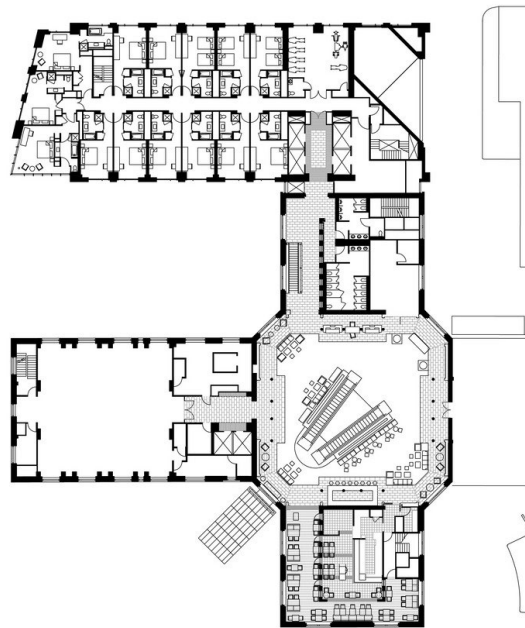


Figure 75 The floor plan shows the new addition to the former Charles Street Jail as the guest rooms of the Liberty Hotel, Boston, Suffolk County, MA. Completed in 1851. Available from: The Liberty Hotel, <http://openbuildings.com/buildings/liberty-hotel-profile-3653> (accessed October 27, 2014).



Figure 77 The former Washburn A Mill in operation, Minneapolis, Minnesota. Completed in 1874. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).

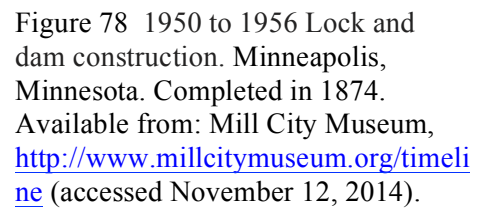




Figure 79 Washburn Crosby mills and railroad yard, Minneapolis, MN. Photograph, about 1940. Box 10, From Mill to Museum Postcard Collection, Department of Archives and Special Collection, Minnesota Historical Society, Minneapolis, MN.



Figure 80 Explosion at the Washburn A Mill, Minneapolis, MN, stereograph by William H. Jacoby, 1878. Box 2, From Mill to Museum Postcard Collection, Department of Archives and Special Collection, Minnesota Historical Society, Minneapolis, MN.

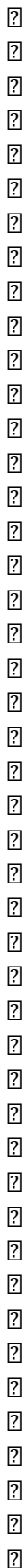
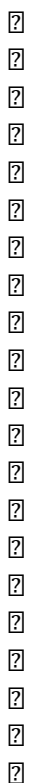
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Figure 82 The remaining grain silos and “Gold Medal Flour” signs. Minneapolis, Minnesota. Available from: Cities Architecture, <http://www.citiesarchitecture.com/Building/1972/Mill-City-Museum.php> (accessed November 12, 2014).



Figure 83 The foundation pads for the two original water powered turbines at the ruin courtyard, Mill City Museum, Minneapolis, Minnesota. Photograph by Tshui Mum Ha, 2013.



Figure 84 The mill was a ruined shell prior to stabilization and reuse after the fire, circa 2000. Minneapolis, Minnesota. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).

OLD

- 1 Museum (lower three floors)
- 2 Rail Corridor
- 3 Ruin Courtyard
- 4 Flour bin armature
- 5 Head House (potential museum expansion)
- 6 Silos (energy distribution/chilled water storage)
- 7 Humboldt Mill (museum offices)
- 8 Utility Mill (residential lofts)

NEW

- A Facade with 1898 section drawing of mill
- B Flour Tower (history theater in an elevator)
- C Express elevator to observation deck
- D Observation deck (ninth floor)
- E Offices (five floors above museum)

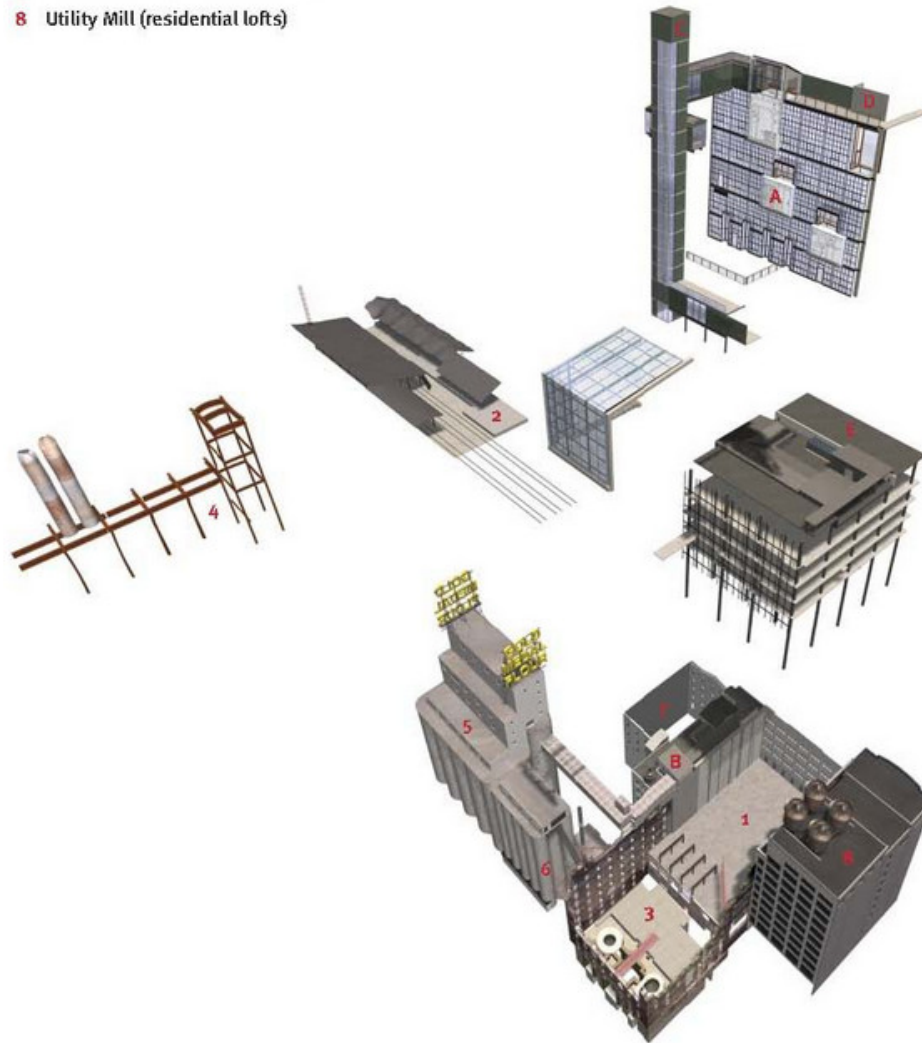


Figure 85 Axonometric view of the Mill City Museum showcases the incorporation between the new and old, Mill City Museum, Minneapolis, Minnesota. Available from: AECCafe, http://www10.aeccafe.com/blogs/arch-showcase/2012/03/02/mill-city-museum-in-minneapolis-mn-by-msr-architecture/mill_city_museum_page_10/ (accessed October 27, 2014).



Figure 86 The eight-story glass façade by Meyer viewing at the ruin courtyard, Mill City Museum, Minneapolis, Minnesota. Photograph by Tshui Mum Ha, 2013.



Figure 87 The new façade shows life-size graphics of machinery from an 1898 section drawing, Mill City Museum, Minneapolis, Minnesota. Available from: Minnesota Historical Society, <http://www.millcitymuseum.org/photo-gallery> (accessed April 7, 2015).

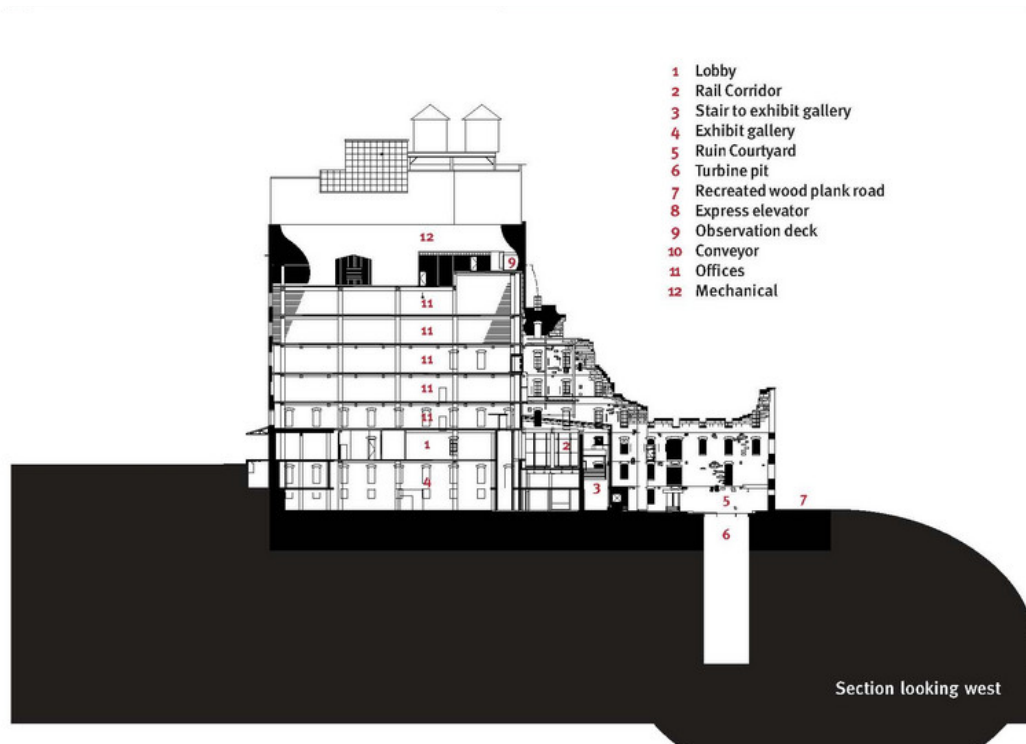


Figure 88 Section drawing showing interior layout planning, Mill City Museum, Minneapolis, Minnesota. Available from: ArchShowcase, http://www10.aecafe.com/blogs/arch-showcase/2012/03/02/mill-city-museum-in-minneapolis-mn-by-msr-architecture/mill_city_museum_page_11/ (accessed December 14, 2014).

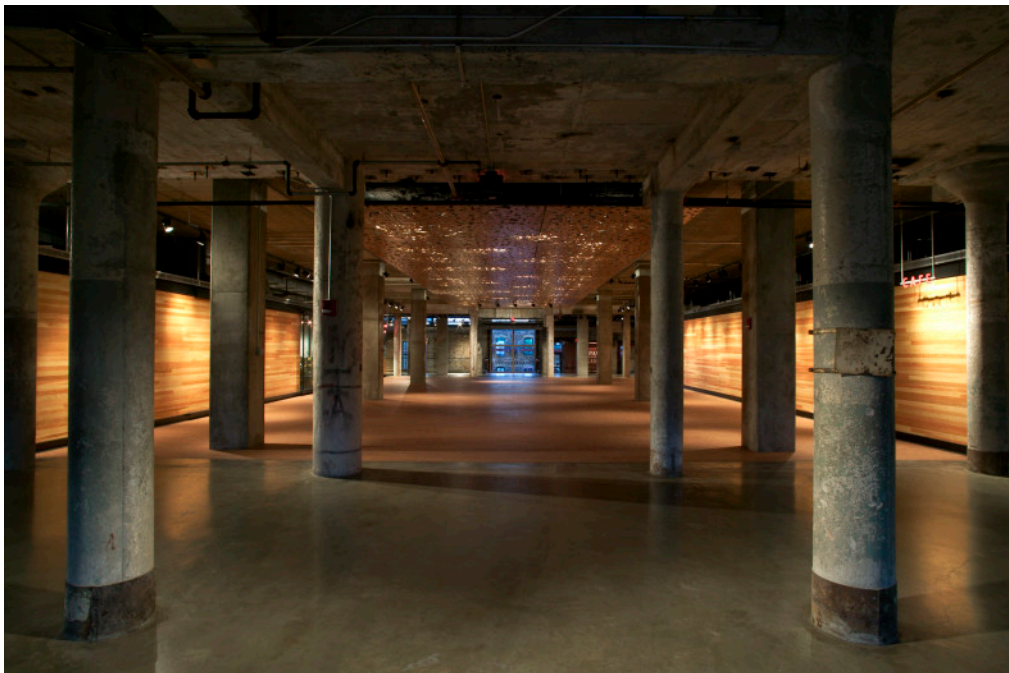


Figure 89 The lobby exposes different layers of the history, Mill City Museum, Minneapolis, Minnesota. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).



Figure 90 The cross-section wooden model of the former mill, Mill City Museum, Minneapolis, Minnesota. Photograph by Tshui Mum Ha, 2013.

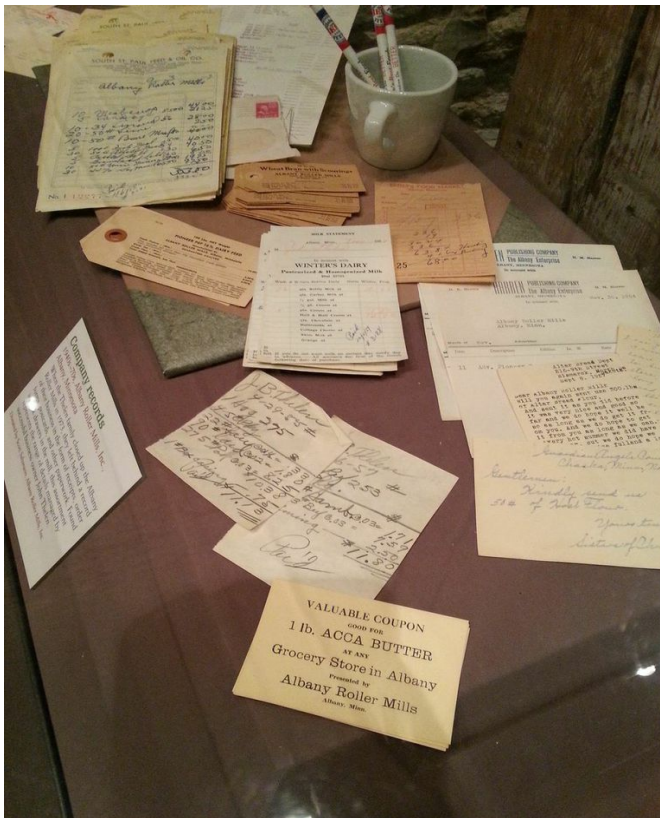


Figure 91 The invoices for order purchase when the mill was in operation, Mill City Museum, Minneapolis, Minnesota. Photograph by Tshui Mum Ha, 2013.



Figure 92 The Flour Tower (an interactive exhibit ride in an elevator) tells the milling story, Mill City Museum, Minneapolis, Minnesota. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).



Figure 93 The fourth floor riverfront loft borrows a graffiti wall from the mill as a focal point in the living area, Mill City Museum, Minneapolis, Minnesota. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).

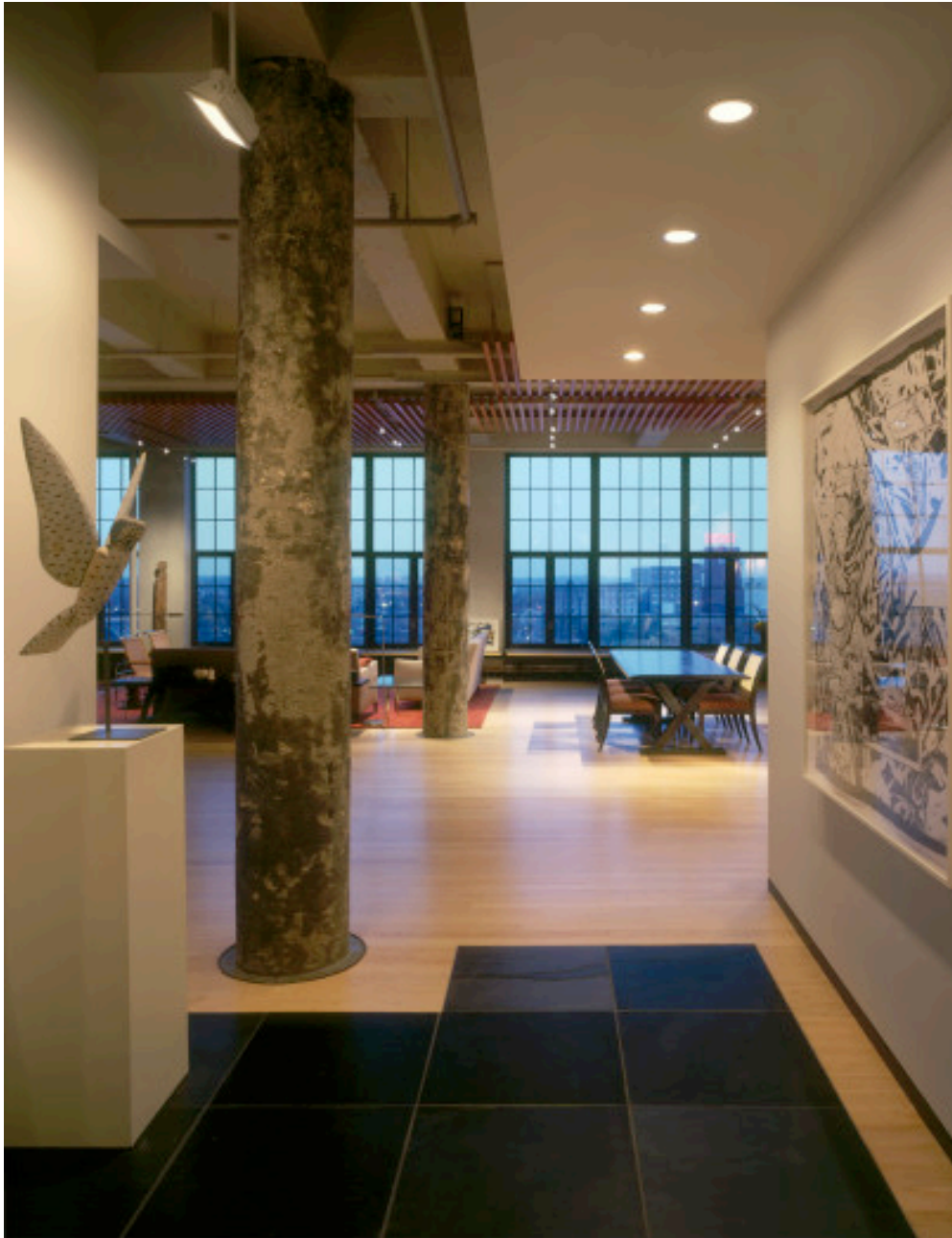


Figure 94 The open loft space offers a better visual of the round concrete columns borrowed from the mill, Mill City Museum, Minneapolis, Minnesota. Available from: Meyer, Scherer, and Rockcastle, <http://msrdesign.com/project/mill-city-museum/> (accessed November 12, 2014).



Figure 95 The abandoned High Line and ready to be torn down in 1980s, The High Line, New York, New York. Available from: Mother Nature Network, <http://www.mnn.com/lifestyle/responsible-living/sponsorvideo/improbable-journey-the-story-of-new-yorks-high-line> (accessed November 19, 2014).

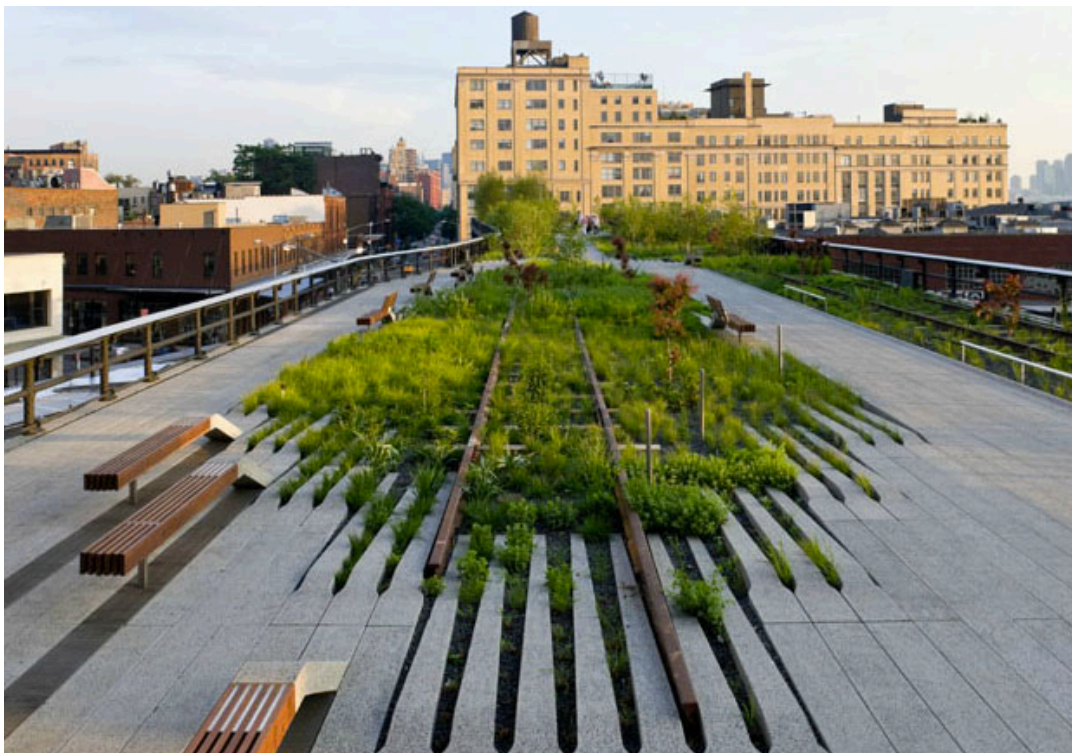


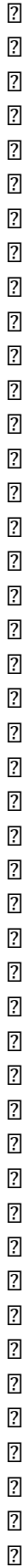
Figure 96 The High Line is revitalized in 2009 as a public park, The High Line, New York, New York. Available from: Diller Scofidio + Renfro, <http://www.dsny.com/#/projects/high-line-two> (accessed April 7, 2015).



Figure 97 The street-level freight trains caused so many accidents that the area became known as Death Avenue, West Side of Manhattan, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 134.



Figure 98 The West Side Cowboys at the West Side of Manhattan, The High Line, New York, New York. Available from: Mother Nature Network, <http://www.mnn.com/lifestyle/responsible-living/sponsorvideo/improbable-journey-the-story-of-new-yorks-high-line> (accessed November 19, 2014).

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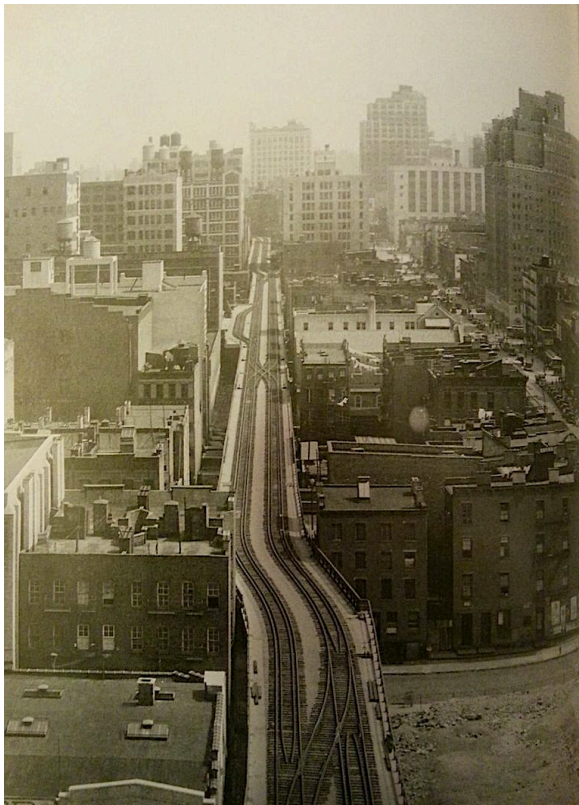


Figure 100 View of the 1.45 mile High Line snakes through the Meatpacking District and Chelsea shortly after it was built. The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 144.



Figure 101 The former High Line that sidle up to some old buildings and slice through some other buildings to bring food to the city, The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 140.



Figure 102 Grasses, wildflowers, and shrubs took root and slowly took over the abandoned High Line in 1980s, The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 147.



Figure 103 Taken in January, the seasonal changes at the High Line, New York, New York. Source: Joel Sternfeld, New York. 2001, Digital c-print. Available from: Luhring Augustine, <http://www.luhringaugustine.com/artists/joel-sternfeld/#/images/55/> (accessed December 3, 2014).



Figure 104 Taken in September, the High Line was occupied by the self-seeded weeds and plants, New York, New York. Source: Joel Sternfeld, New York. 2000, Digital c-print. Available from: Luhring Augustine, <http://www.luhringaugustine.com/artists/joel-sternfeld/#/images/51/> (accessed December 3, 2014).

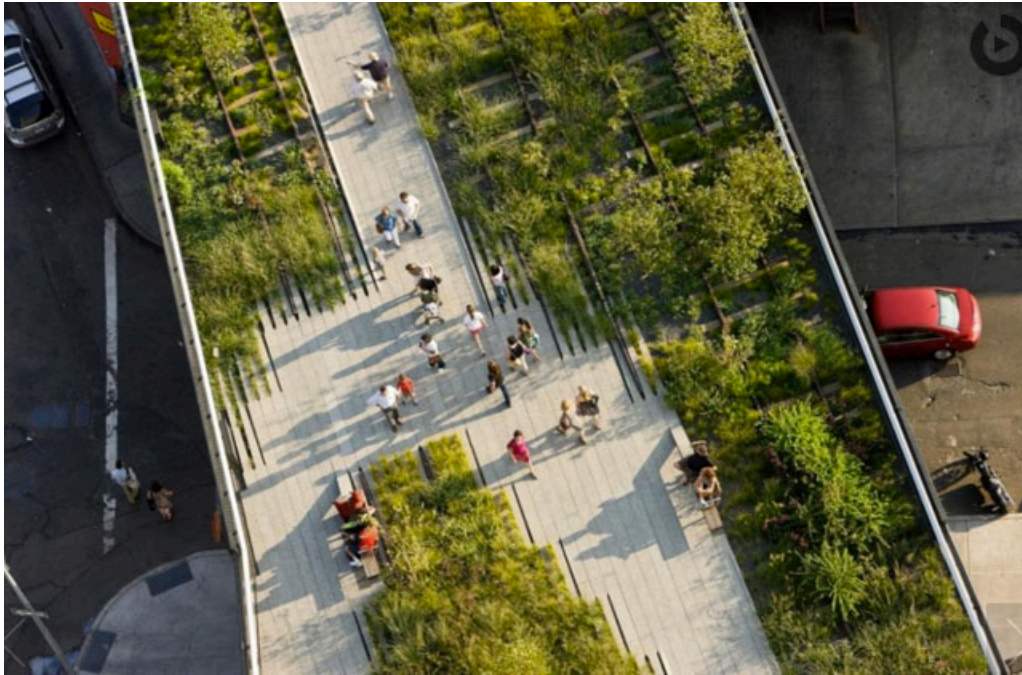


Figure 105 The irregular manner of the paving systems. The High Line, New York, New York. Available from: Cities Next, <http://citiesnext.com/project/the-high-line/> (accessed December 14, 2014).



Figure 106 The tapered edges of the concrete planks, The High Line, New York, New York. Photography by Tshui Mum Ha, 2014.



Figure 107 The installation of paving systems, The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 195.



Figure 108 View of planting in the beds, The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 197.

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Figure 109 Many of the High Line's original railroad tracks were reinstalled into the new landscape, The High Line, New York, New York. Available from: Joshua David and Robert Hammond. *High Line: The Inside Story of New York City's Park in the Sky*. New York: Farrar, Stratus and Giroux, 2011. P. 197.



Figure 110 The existing railroad tracks blend in together with the concrete planks, The High Line, New York, New York. Photography by Tshui Mum Ha, 2014.

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Figure 111 The sunning area at 16th Street with wooden chaise lounges, The High Line, New York, New York. Photography by Tshui Mum Ha, 2014.



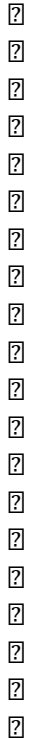
Figure 112 An overlooking with a large glass providing a view of 10th Avenue, The High Line, New York, New York. Photography by Tshui Mum Ha, 2014.



Figure 113 The grassland at south of 19th Street, The High Line, New York, New York. Available from: Diller Scofidio+Renfro, <http://www.dsny.com/#/projects/high-line-two> (accessed December 4, 2014).



Figure 114 IAC Building by Frank Gehry viewed from the High Line, New York, New York. Photography by Tshui Mum Ha, 2014.



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Figure 117 Landschaftspark Duisburg-Nord, Duisburg, Germany. Available from: Route-Industriekultur, <http://www.route-industriekultur.de/ankerpunkte/landschaftspark-duisburg-nord.html> (accessed December 14, 2014).

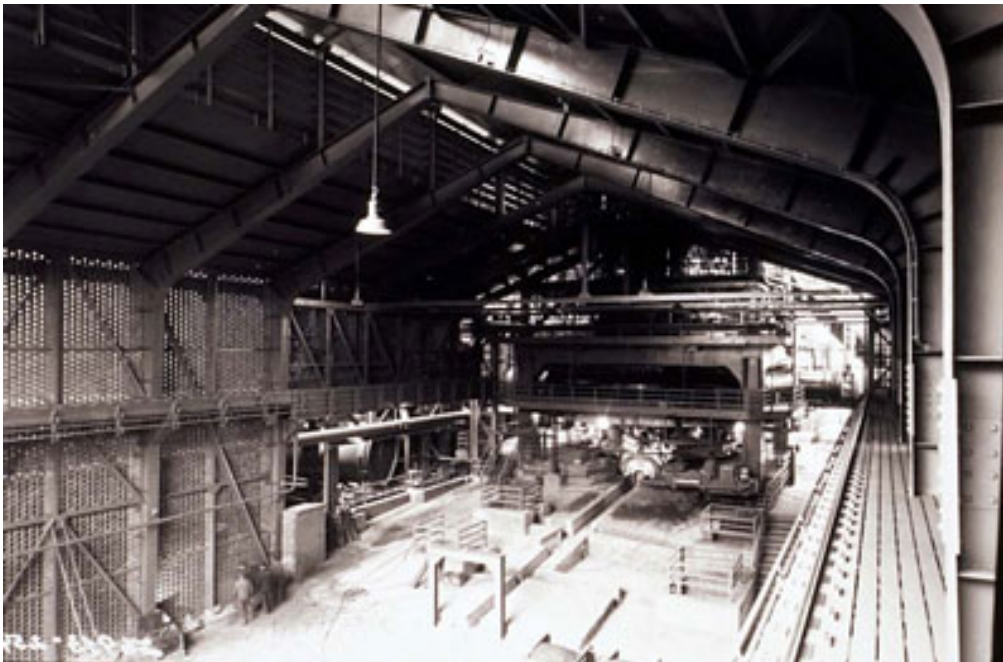


Figure 118 First blast furnace cast house, Thyssen Hochofenwerk Meiderich, Duisburg, Germany. 1903. Available from: Rheinische Industriekultur, http://www.rheinische-industriekultur.de/objekte/Duisburg/Huettenbetriebe%20Meiderich/huettenbetriebe_Meiderich.html (accessed December 14, 2014).

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Figure 119 Second blast furnace wind house, Thyssen Hochofenwerk Meiderich, Duisburg, Germany. 1912. Available from: Rheinische Industriekultur, http://www.rheinische-industriekultur.de/objekte/Duisburg/Huettenbetriebe%20Meiderich/huettenbetriebe_Meiderich.html (accessed December 14, 2014).



Figure 120 Fifth blast furnace bunker and dock, Thyssen Hochofenwerk Meiderich, Duisburg, Germany. 1912. Available from: Rheinische Industriekultur, http://www.rheinische-industriekultur.de/objekte/Duisburg/Huettenbetriebe%20Meiderich/huettenbetriebe_Meiderich.html (accessed December 14, 2014).



Figure 121 Pig casting machine, Thyssen Hochofenwerk Meiderich, Duisburg, Germany. 1912. Available from: Rheinische Industriekultur, http://www.rheinische-industriekultur.de/objekte/Duisburg/Huettenbetriebe%20Meiderich/huettenbetriebe_Meiderich.html (accessed December 14, 2014).



Figure 122 Metal Slide at Landschaftspark Duisburg-Nord. Landschaftspark Duisburg-Nord, Duisburg, Germany. Available from: Blog spot, <http://thegardenwanderer.blogspot.com/2011/12/landschaftspark-duisburg-nord-germany.html> (accessed December 14, 2014).



Figure 123 Rock-climbing center at the play point at Landschaftspark Duisburg-Nord. Landschaftspark Duisburg-Nord, Duisburg, Germany. Available from: Landezine Landscape Architecture Works, <http://www.landezine.com/index.php/2011/08/post-industrial-landscape-architecture/> (accessed December 14, 2014).



Figure 124 Railway and bike paths at Landschaftspark Duisburg-Nord. Landschaftspark Duisburg-Nord, Duisburg, Germany. Available from: Landezine Landscape Architecture Works, <http://www.landezine.com/index.php/2011/08/post-industrial-landscape-architecture/> (accessed December 14, 2014).

	Small (<18,000 ft ²)	Medium (18,000–50,000 ft ²)	Large (>50,000 ft ²)
Residential	Too numerous	\$144	\$231
Commercial	\$111	\$169	\$102
Institutional	\$212	\$200	Insufficient data

Table 1. Robert Shipley, Steve Utz, and Michael Parson, Cost per square foot for renovation reported. Available from: Robert Shipley, Steve Utz, and Michael Parson, “Does Adaptive Reuse Pay? A Study of the Business of Building Renovation in Ontario Canada,” in *International Journal of Heritage Studies*, vol. 12, no. 6 (November 2006): 507 (Accessed September 24, 2014).

	Small (<18,000 ft ²)	Medium (18,000–50,000 ft ²)	Large (>50,000 ft ²)
Residential		\$155	\$130
Commercial	\$95	\$155	\$165
Institutional	\$195	\$195	

Table 2. Robert Shipley, Steve Utz, and Michael Parson, Cost per square foot for new construction reported. Available from: Robert Shipley, Steve Utz, and Michael Parson, “Does Adaptive Reuse Pay? A Study of the Business of Building Renovation in Ontario Canada,” in *International Journal of Heritage Studies*, vol. 12, no. 6 (November 2006): 507 (Accessed September 24, 2014).

APPENDIX A

Survey Result Response 1

Survey Questionnaire

Survey Topic: Adaptive reuse – architecture that speaks its past to the contemporary.

Number of Question: 19

Instructions: Answer questions as they relate to you. For most answers, please check the box(es) most applicable to you or fill in the blank.

Session 1: About You:

1. Your age:

- ☐ 18-25
☒ 26-35
☐ 36-45
☐ 46-55
☐ 56-65
☐ 66 or more

2. Your gender:

- ☒ Female
☐ Male
-

Session 2: About Your Personal Experience Working in the Mill City Museum:

3. How long have you been working at the Mill City Museum?

- ☐ Less than 1 year
☐ 2-5 years
☒ 6-8 years
☐ 9 and above

4. Do you know this building is transformed from another original purpose, which it was designed/built for?

- ☒ YES
☐ NO

5. Do you know what was the original purpose of the Mill City Museum?

- ☒ YES (please specify) Flour Mill
☐ NO

6. Do you know how the role of the original purpose of the Mill City Museum influences/contributes to the development of the city?

- ☒ YES (please specify) This mill was one of the mills that improved the flour milling process to bring more consistent flour to more people.
☐ NO

7. Do you realize there are distinctive features, finishes, and construction techniques or examples of craftsmanship within this building?

- ☐ YES (please specify) _____
☒ NO

8. Based on the structure of the building, are you able to distinguish the original old structure from the contemporary addition within this building?

- ☒ YES (please specify) Brick walls, concrete ceilings and certain concrete pillars are old.
☐ NO

9. As you are to encounter the original old structure of the building when you come to work, does the original old structure help to relate your personal experience to any historical events that you have learned/heard of before?

- ☐ YES (Please specify) _____
☒ NO
-

10. Considering the design of this building, what three words would you use to describe the experience of working in this building?

1. Memorable
2. Unique
3. Historical

Session 3: Your Observation about the Visitors' Experiences

11. Based on your observation, what do you think is the primary motivation of the visitors to visit the Mill City Museum? Please rate each option on scale of 1 to 7 with 7 indicating the most majority while 1 indicating the least.

- ☒ 3 It is a field trip arranged by school.
- ☒ 7 It is a field trip arranged by organization.
(Please specify the organization) _____
- ☒ 1 It is recommended by friends, relatives or colleagues.
- ☒ 2 They are attracted by the appearance of this building.
- ☒ 3 They are attracted by the history of this building.
- ☒ 4 They are here to learn history.
- ☐ Others (Please specify) _____

12. Which part of the museum do you think visitors enjoy most? Please rate each option on scale of 1 to 10 with 10 indicating the most majority while 1 indicating the least.

- ☒ 5 Lobby
- ☒ 4 Rail Corridor
- ☒ 2 Flour Tower and its exhibit
- ☒ 3 Observation deck on the top floor
- ☒ 6 Permanent exhibit at lower floor.
- ☒ 1 Ruin Courtyard
- ☒ 9 Events/temporary exhibits organized in this building.
- ☒ 7 Souvenir shop in this building.
- ☒ 10 Café/restaurant.
- ☐ Others (Please specify) _____

13. Based on the option you have chosen above, how do(es) that portion(s) of the Mill City Museum help the visitors to understand more about the building and its history itself? Please write the top 3 options that you have made in question 12.

- ☐ Lobby _____
- ☐ Rail Corridor _____
- ☐ Flour Tower and its exhibit Unique experience that brings people into the past using technology, movement and sound.
- ☐ Observation deck on the top floor Viewing St .Anthony Falls shows people why the mills were here and how the power came into the Mill.
- ☐ Permanent exhibit at lower floor _____
- ☐ Ruin Courtyard Ruins from the fire show people the impact the fire had on the building. It's visible and memorable from anywhere along the riverfront.

-
- ☐ Events/temporary exhibits organized in this building _____
- ☐ Souvenir shop in this building _____
- ☐ Café/restaurant _____
- ☐ Others _____
-

14. Based on your own observation, what have the visitors taken away from their visit?

Flour Milling is actually kind of interesting :) They think about where their food comes from and how the flour milling industry changed the way people ate.

15. On what basis do you know they have taken away from their visit to the Mill City Museum?

They ask questions like "Where is flour made now?" and tell us personal stories, "My mom had this Betty Crocker cookbook."

Session 4: About the Economics of This Building

16. As a tourist attraction, does the value earned from the tourism sufficient to cover the maintenance of The Mill City Museum itself?

- ☐ YES
☒ NO

17. Is there an increase of other businesses (such as café/restaurant, bookstore, hotel/lodge, boutique, museum, gift shop, etc.) after the establishment of the Mill City Museum?

- ☐ YES
☐ NO

18. Do you think the location of the Mill City Museum within this neighborhood helps to make an increase in the revenue of the business at this district?

- ☒ YES
☐ NO

19. Additional comments about the Mill City Museum?

It teaches people about the importance of the waterfall and riverfront. Many places around benefit from the river and views, but no others speak to the significance of why Minneapolis is where it is.

APPENDIX B
Survey Result Response 2

Survey Questionnaire

Survey Topic: Adaptive reuse – architecture that speaks its past to the contemporary.

Number of Question: 19

Instructions: Answer questions as they relate to you. For most answers, please check the box(es) most applicable to you or fill in the blank.

Session 1: About You:

1. Your age:

- ☐ 18-25
☒ 26-35
☐ 36-45
☐ 46-55
☐ 56-65
☐ 66 or more

2. Your gender:

- ☐ Female
☒ Male

Session 2: About Your Personal Experience Working in the Mill City Museum:

3. How long have you been working at the Mill City Museum?

- ☐ Less than 1 year
☐ 2-5 years
☐ 6-8 years
☒ 9 and above

4. Do you know this building is transformed from another original purpose, which it was designed/built for?

- ☒ YES
☐ NO

5. Do you know what was the original purpose of the Mill City Museum?

- ☒ YES (please specify) Do you mean the original purpose of the museum itself, or the building that it is housed in (the historic Washburn A Mill)? It's unclear from your question. If you mean the building, then it was originally a flour mill.
☐ NO

6. Do you know how the role of the original purpose of the Mill City Museum influences/contributes to the development of the city?

- ☒ YES (please specify) The Washburn A Mill influenced and contributed to the development of the city in that the flour-milling industry was the main catalyst for the growth and development of the city.
☐ NO

7. Do you realize there are distinctive features, finishes, and construction techniques or examples of craftsmanship within this building?

- ☒ YES (please specify) _____
☐ NO

8. Based on the structure of the building, are you able to distinguish the original old structure from the contemporary addition within this building?

- ☒ YES (please specify) Different/contemporary materials (glass/steel/drywall) used for many of the new features.
☐ NO

9. As you are to encounter the original old structure of the building when you come to work, does the original old structure help to relate your personal experience to any historical events that you have learned/heard of before?

- ☒ YES (Please specify) Yes. The original structure helps me understand the form and function of a flour mill, and the massive scale of this particular mill. The ruin courtyard helps me understand the force and destructive nature of the 1991 fire that destroyed the building. Seeing bricked up windows and doors and variety of building materials (wood, limestone, concrete) helps me understand how this building was adapted and changed over time.
☐ NO

10. Considering the design of this building, what three words would you use to describe the experience of working in this building?

1. Unique
2. Fun
3. Transformative

Session 3: Your Observation about the Visitors' Experiences

11. Based on your observation, what do you think is the primary motivation of the visitors to visit the Mill City Museum? Please rate each option on scale of 1 to 7 with 7 indicating the most majority while 1 indicating the least.

- ☒ 6 It is a field trip arranged by school.
- ☒ 6 It is a field trip arranged by organization.
(Please specify the organization) _____
- ☒ 7 It is recommended by friends, relatives or colleagues.
- ☒ 6 They are attracted by the appearance of this building.
- ☒ 6 They are attracted by the history of this building.
- ☒ 6 They are here to learn history.
- ☐ Others (Please specify) _____

12. Which part of the museum do you think visitors enjoy most? Please rate each option on scale of 1 to 10 with 10 indicating the most majority while 1 indicating the least.

- ☒ 5 Lobby
- ☒ 6 Rail Corridor
- ☒ 10 Flour Tower and its exhibit
- ☒ 10 Observation deck on the top floor
- ☒ 9 Permanent exhibit at lower floor.
- ☒ 9 Ruin Courtyard
- ☒ 8 Events/temporary exhibits organized in this building.
- ☒ 6 Souvenir shop in this building.
- ☒ 5 Café/restaurant.
- ☐ Others (Please specify) _____

13. Based on the option you have chosen above, how do(es) that portion(s) of the Mill City Museum help the visitors to understand more about the building and its history itself? Please write the top 3 options that you have made in question 12.

- ☐ Lobby _____
- ☐ Rail Corridor _____
- ☐ Flour Tower and its exhibit Shows how the mill worked, what it was like to work here, and what it looked like.
- ☐ Observation deck on the top floor Great view of the mill district, St Anthony Falls, Mississippi River, Stone Arch Bridge, and the building itself.
- ☐ Permanent exhibit at lower floor Self-explanatory
- ☐ Ruin Courtyard _____

- ☐ Events/temporary exhibits organized in this building _____
- ☐ Souvenir shop in this building _____
- ☐ Café/restaurant _____
- ☐ Others _____

14. Based on your own observation, what have the visitors taken away from their visit?

A better knowledge of Minneapolis, and how the milling industry was important to and affected the growth of the city. How the Mississippi River and St Anthony Falls were vital to the city and continue to be important. Where the food people eat comes from.

15. On what basis do you know they have taken away from their visit to the Mill City Museum?

Feedback from visitors, conversations with people who have visited, surveys from school groups.

Session 4: About the Economics of This Building

16. As a tourist attraction, does the value earned from the tourism sufficient to cover the maintenance of The Mill City Museum itself?

- ☐ YES
- ☐ NO

17. Is there an increase of other businesses (such as café/restaurant, bookstore, hotel/lodge, boutique, museum, gift shop, etc.) after the establishment of the Mill City Museum?

- ☒ YES
- ☐ NO

18. Do you think the location of the Mill City Museum within this neighborhood helps to make an increase in the revenue of the business at this district?

- ☒ YES
- ☐ NO

19. Additional comments about the Mill City Museum?

I don't know the answer to the question about ticket income covering maintenance costs.

APPENDIX C
ON THE LINE VISITOR TRACKING SURVEY

Friends of the High Line

On the Line Visitor Tracking Survey
2013 Tracking Study: Findings & Recommendations

October 22, 2013



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Table of Contents

Project Overview	
Background and objectives	3
Methodology	4
Analytical approach	5
Executive summary of key findings	6
Detailed findings	
High Line visitor profile	12
Visiting the High Line	20
Visitor perceptions	29
Key differences by visitor segment	35
Recommendations	61
Appendix	67
Full survey instrument	
Short-form survey instrument	

Project Overview

- Background and objectives
- Methodology
- Analytical approach

Project overview: Background and objectives

- Soon after the park officially opened in 2009, Friends of the High Line engaged Slover Linett Audience Research to design and administer an onsite visitor survey in order to capture a baseline picture of:
 - Visitors' demographic and geographic characteristics
 - How visitors hear about the High Line
 - Visitors' motivations to come to the High Line
 - Visitation patterns (such as visit length, visiting social group composition, etc.)
 - Visitors' awareness of onsite activities and the Friends of the High Line organization
 - The activities and programs in which visitors are participating at the park
 - Visitors' perceptions of the High Line—including whether it is considered to be a significant draw to visit in New York
- The current study comprises the first wave of tracking of the onsite visitor survey
 - It's intended to gauge key areas of potential change or consistency among High Line visitors over time, comparing this year's data to the baseline wave data
 - Further tracking studies can be conducted on a regular, ongoing basis using this model, allowing new data to be compared with these first two years to gauge areas of progress and change

Project overview: Methodology

- The research was conducted onsite at the High Line
 - Data was collected by High Line volunteers stationed at a variety of locations, and fielding took place during a variety of times of day and days of week
 - Surveys were self-administered via pen-and-paper
 - Survey respondents had to be at least 16 years old
 - The survey instrument contained 23 questions with only minor changes and updates from 2009-10
 - High Line volunteers followed a random recruiting protocol and invited selected visitors (e.g., every 5th person) to take the survey; this random sampling strategy worked to limit respondent selection bias
 - Each of the two fielding years contained four fielding periods, each lasting approximately one week
 - In the baseline year, the survey was fielded in November 2009, April 2010, June 2010, and August 2010
 - In the tracking year, the survey was fielded in August 2012, November 2012, April 2013, and June 2013
 - Two additional forms captured data along with the survey:
 - A refusal log recorded the number of visitors who were approached but did not want to take the survey (used to calculate response rate below)
 - A short-form survey was offered to non-English speakers to capture key demographics and satisfaction (not included in response rate below; see Appendix)
- A total of 4,095 surveys were collected across the years: 2,225 in 2009-10 and 1,870 in 2012-13
 - After cleaning the data, we retained 4,008 surveys for analysis
 - The overall response rate was 36% in 2012-13, compared to 53% in 2009-10
 - This difference might be attributed to a variety of factors, e.g., the park's newness in 2009-10 may have made people eager to weigh in; however, the 36% response rate is similar to what we typically attain in onsite surveys so this may be a more reasonable expectation for the long-term
 - After analyzing fielders' observations, no notable differences were discovered between those who refused and those who completed a survey

Project overview: Analytical approach

- In the first three sections of the detailed findings (“High Line visitor profile,” “Visiting the High Line,” and “Visitor perceptions”), we present data for the current year (2012-13) side-by-side with the baseline data (2009-10), and show statistically significant differences between the two
- In the fourth section of the detailed findings (“Key differences by visitor segment”), we highlight key differences by six main sub-segments of the overall visitor base:
 - **Geographic residence** (“local” New York City residents vs. “out-of-town” residents)
 - **Visiting party** (attending with children under 18 vs. attending without children under 18)
 - **Visitation history** (primarily first-time vs. repeat visitors)
 - **Program participation** (participated in at least one onsite program vs. has never participated in a program)
 - **Day of the week** (weekend vs. weekday)
 - **Visit length** (under 20 minutes, between 20-45 minutes, over 45 minutes)
- For these visitor segments, we analyzed differences both within the current 2012-13 year, as well as differences across the two fielding years
- In this section, we only show or call out data where the differences between visitor segments were significant—whether within the current year or across years
- We found few instances where the patterns among segments differed from what we’d uncovered in the past; instead, differences between segments tended to remain consistent with the baseline year findings
 - For example, NYC residents visit the park more frequently than out-of-town residents, and that was true across both fielding years
 - In such cases, we only present the current year’s data and make note that the pattern is consistent with the baseline year

Executive summary of key findings

Key finding #1: The High Line is clearly gaining traction as a visitor destination for New York's out-of-town visitors

- The High Line's out-of-town visitor population is growing at a faster rate than its local visitor base is
 - The proportion of out-of-towners has increased to two-thirds of the park's visitors (up from about half a few years ago)
 - Including a doubling of international visitors in that time (to 30% of all visitors)
- What this trend **has not** meant ...
 - That there are necessarily fewer local visitors coming to the park
 - These data capture proportion of visitors, not overall number. So, if the High Line's overall visitation numbers have been increasing in the past few years (as we assume), then this tells us that it's more likely that the local visitor base is just growing more slowly than is the out-of-town visitor base
 - That there has been an increase in first-time visitors in conjunction with the rise in out-of-towners
 - In fact, repeat and first-time visitors remain about split evenly, suggesting the High Line continues to draw both new *and* returning visitors both from within NYC and from outside the city
 - That visitors' overall high opinion of the High Line has been diminished
 - It continues to be considered a "must-see" destination worthy of recommending to friends
 - And, the perception that the High Line is "welcoming" has only increased, from locals and out-of-towners alike
- What this trend **has** revealed ...
 - More visitors are drawn to the area specifically to see the High Line (this is particularly true for out-of-town visitors), so the park is acting as a magnet for the area
 - Word of mouth has increased as a primary information source among non-local visitors (as have guidebooks), so buzz about the park is gathering outside of New York
 - While word of mouth among locals has remained consistent with the past

Key finding #2: The High Line's visitor base is more ethnically diverse and younger than a few years ago

- This shift in the visitor base is almost entirely due to demographic changes of NYC visitors
 - This year, visitors from NYC are so much more diverse and young than in the past that they have shifted the entire visitor base to look more ethnically diverse and younger as compared to overall visitors in 2009-10
 - Despite the fact that out-of-town visitors are older and less diverse than locals
 - This year, visitors from the High Line's immediate neighborhood are *less* ethnically diverse than in the past; it is the visitors from beyond the neighborhood but within the city who are more diverse this year
 - But despite these strides, visitors from NYC are still not nearly as diverse as the NYC population from which they come and the High Line continues to have a long way to go in attracting a visitorship representative of the city

Key finding #3: The High Line is acting as both a community space and a tourist destination, though these perceptions are nuanced

- While the High Line staff may perceive the descriptors of “community space” and “tourist attraction” to be in conflict, equally high proportions of visitors felt that these phrases accurately describe the High Line
- However, more locals than out-of-towners perceive it to be a tourist attraction, while more out-of-towners than locals perceive it to be a community space
 - It should be noted, though, that in general both locals and out-of-towners feel that both of these two descriptors apply to the park
 - Locals likely have a heightened awareness of their counterparts visiting from other parts of the country and the world, and may be aware of the international press their local park has garnered ...
 - ... while out-of-towners may be attuned to the ways in which locals are using the space more informally and see evidence of the ways it reflects the local community’s arts and cultural flavor
- And it is true that while more locals perceive the park to be a tourist attraction, they are more likely to use it as a community space
 - Locals are more often drawn to the High Line to spend time outdoors, relaxing and socializing, than any other reasons, and they sometimes use it to get from one location to another
 - Locals come fairly frequently, for shorter “drop by” durations, and often on their own, which stands in contrast with out-of-towners’ visitation patterns
 - Locals continue to be more likely to participate in programs than out-of-towners, although that was more the case in the past than it is now

Key finding #4: More visitors are aware of—and taking advantage of—the variety of offerings that distinguish the High Line

- Our findings suggest that the perception—as well as the experience—of visiting the High Line is shifting in a direction that highlights the dynamic elements that distinguish it from other nature-in-the-city destinations
- Though there continues to be a great deal of room to increase awareness of, and participation in, onsite programming, it is up across the board from 2009-10; we suspect this can be attributed to an overall increase in program offerings as well as effective messaging about them
 - Awareness of, and participation in, art exhibitions and installations is greater than that of the scheduled programs, which is not surprising given that visitors can “stumble upon” the art displayed at the High Line
 - As for the scheduled onsite programming, less than half of visitors are aware of it, and very few are participating in any of the scheduled program types (including tours, performing arts, family activities, lectures, etc.)
- Visitors’ initial exposure to the High Line increasingly includes some sort of activity or program that takes their visit beyond simply a “nature experience”
 - Even if programming isn’t necessarily the reason they visit
- Program participation is related to higher satisfaction ... though we can’t be certain whether participation is the *cause of a great visit experience*, or the *result of one*
 - We do know that program participants (of any type) are more willing than those who have not engaged in a program to recommend the High Line to others as a “must-see” destination
- More visitors are also making use of the High Line as a place to eat
 - Awareness and consumption of the High Line’s food vendor options have both increased in the past few years

Key finding #5: Families are more deliberately planning for their visits—and once there, they experience the High Line differently

- Visitors coming with children under 18 (which are often nuclear family groups) tend to be more deliberate in their decision to come to the High Line than adult-only groups
 - They are more likely to have “heard about it and wanted to check it out”—and less likely to come to socialize and relax while there—than adult-only visitors
 - They are usually only coming to visit the High Line, and not to visit other attractions in the neighborhood
 - They make lengthy, but less frequent, visits to the High Line
 - Some of these findings could be influenced in part by the families who come for programming designed for kids and/or families, but these program-driven visits still require more deliberation and planning than other types of visits
 - While they visit during weekdays and weekends almost equally, they’re more likely than others to come on weekdays
- Family groups also shape their experience slightly differently than non-child visiting groups do; namely, by being more likely to:
 - participate in “family-friendly activities” (over a third do so)
 - take photos (possibly photographing children in the natural setting or documenting a family outing)
 - eat at the park
 - And when they do, they’re more likely than others to purchase their meal or snack from a vendor, rather than bringing it from home

Detailed findings: High Line visitor profile

Visitor profile: Visitors to the High Line are now younger and more ethnically diverse than they were in the past

	2009-10	2012-13
Gender	<i>n</i> =2112	<i>n</i> =1783
Female	47%	45%
Male	53%	55%
Age	<i>n</i> =2004	<i>n</i> =1690
24 and under	4%	12%
25-29	11%	16%
30-39	27%	23%
40-49	18%	17%
50-59	17%	17%
60 and above	22%	16%
Average age	45.6	41.5
Ethnicity (check all that apply)	<i>n</i> =2085	<i>n</i> =1784
Caucasian/White	81%	77%
Asian/Pacific Islander	6%	7%
Latino/Hispanic	6%	8%
African American/Black	4%	6%
Native American	<1%	1%
Other	5%	5%

- Visitors this past year are younger, on average, than those coming in the park's opening year
 - In 2009-10, just 15% of visitors were under 30 years old, compared to over one-fourth (28%) in 2012-13
 - And in the park's opening year, almost one-fourth of visitors were 60 and older, compared to only 16% of visitors this year
- Visitors this year are also more ethnically diverse than they have been in the past
 - While the vast majority of visitors to the park continue to be Caucasian/White, the past year saw a significant uptick in visitation among Latino/Hispanic and African-American/Black visitors
 - Comparisons of visitor demographics to New York City census data to follow on page 15
- In both cases, the High Line's changing local visitor base is driving these trends
 - These patterns are explored in more depth on page 36

*Percentages may not sum to 100% due to rounding.

Visitor profile: Recent visitors are more likely to have children at home, compared to the past

	2009-10	2012-13
Education	<i>n</i> =2115	<i>n</i> =1789
High school/GED or less	5%	6%
Some college	9%	10%
College degree	32%	32%
Some graduate work	7%	4%
Graduate/post-graduate degree	46%	49%
Children under 18 at home	<i>n</i> =2121	<i>n</i> =1798
Yes	20%	23%
No	80%	77%
Income	<i>n</i> =1856	<i>n</i> =1581
Under \$25,000	13%	12%
\$25,000-\$49,999	15%	15%
\$50,000-\$74,999	16%	18%
\$75,000-\$99,999	17%	15%
\$100,000-\$150,000	15%	17%
Above \$150,000	23%	23%
<i>Average annual household income</i>	\$87,720	\$88,900

- This year's visitors are more likely to have children under 18 living at home, compared to the park's opening year
 - In 2009-10, 1 in 5 visitors had children at home, whereas that figure increased to just under 1 in 4 in 2012-13
- The vast majority of visitors to the park continues to be highly educated
 - In both years, almost half of visitors had a graduate/post-graduate degree
- The High Line continues to attract visitors across a fairly wide income range

* Percentages may not sum to 100% due to rounding.

Visitor profile: The High Line has room to reach a more representative base of New York City visitors

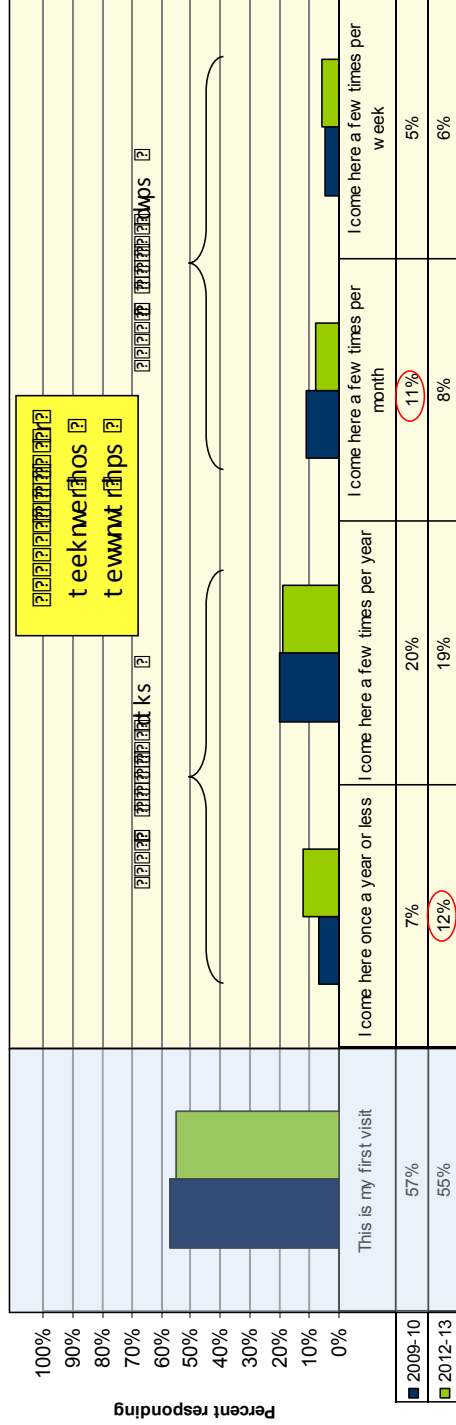
- We compared visitor demographics to the city’s most recent US Census data to gauge whether the High Line’s local (NYC-based) visitors are representative of the city’s population as a whole
 - **Ethnicity:** Even though visitors to the park are more ethnically diverse this year than in the past, non-Caucasians are still underrepresented at the High Line
 - 70% of this year’s NYC-based visitors are Caucasian, compared to 36% of city residents overall
 - > This gap is largely due to under-representation of Hispanics/Latinos and African-Americans/Blacks—both groups are about half as represented in the park compared to in the city as a whole.
 - **Education:** As we saw in the past, visitors from New York City are still more highly educated than the city’s overall population
 - 41% of New York City residents visiting the High Line this year have completed some graduate or post-graduate studies, compared to only 13% of the city’s overall population
 - And whereas only 6% of New York City residents visiting the park have completed high school or less, this is true of 43% of the general New York City population
 - **Household composition:** This year’s visitors from New York City are half as likely to have children at home, compared to the general NYC population (15% vs. 28%)
 - **Age & Income:** This year’s NYC-based visitors tend to be slightly younger and to have higher incomes than NYC residents overall, although these gaps were not as large
- **Implication:** There continues to be an opportunity for the High Line to reach a more demographically representative base of New York City residents.

Source: 2010 U.S. Census
Please note that survey answer options do not exactly match US Census categories, so these findings can be interpreted as reflecting directional trends only

About half of the High Line’s visitors continue to be

repeat visitors?

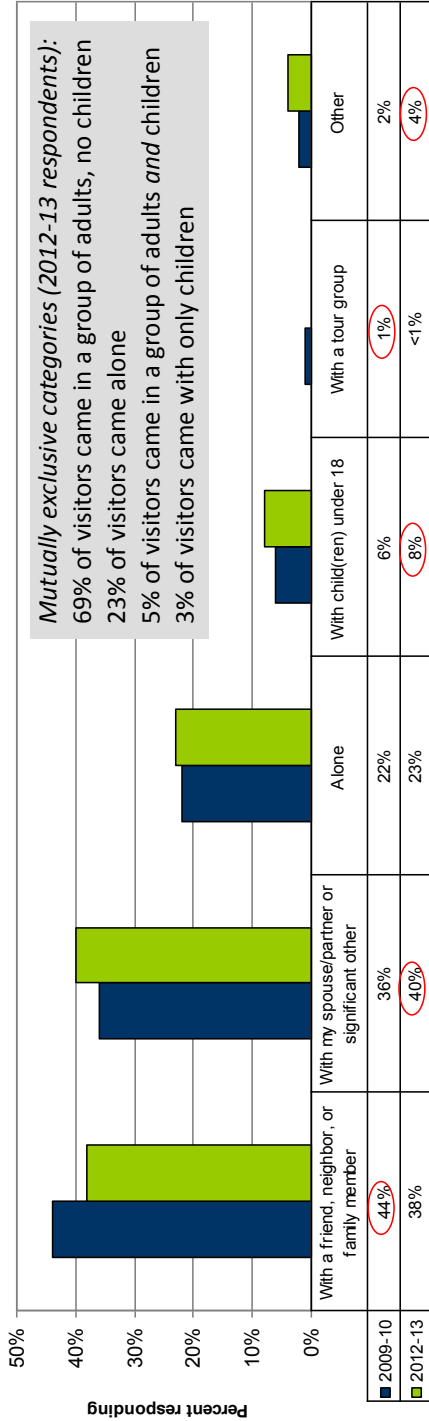
Q1: Have you been to the High Line before? If so, how often do you visit? Check one.



- I have visited before
- I come here once a year or less
- I come here a few times per year
- I come here a few times per month
- I come here a few times per week

Visitor profile: This year, groups composed of nuclear family members are more prevalent at the park

Q2: Did you come alone today, or with others? Check all that apply.

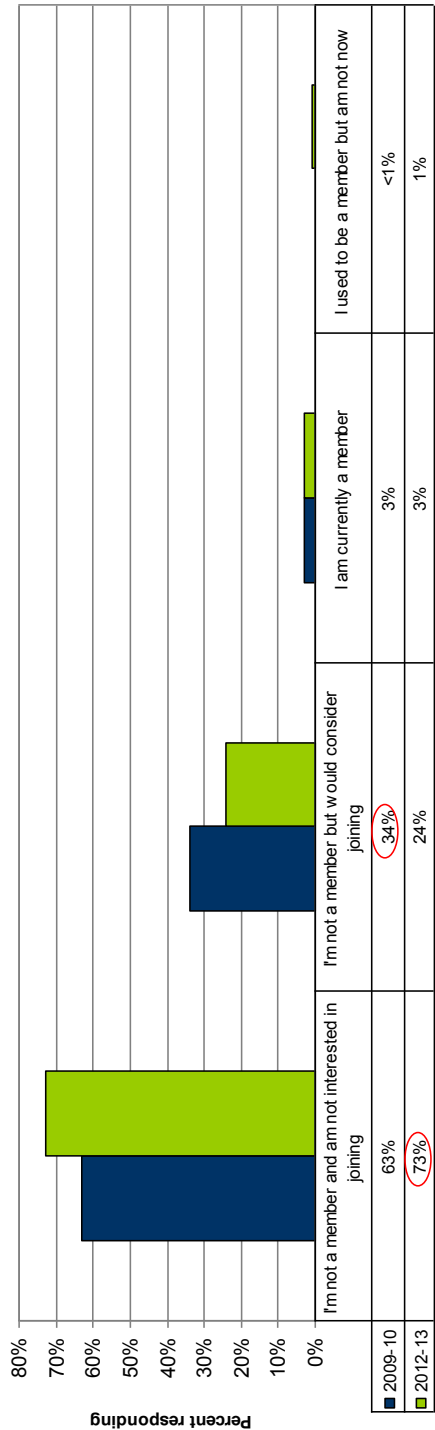


- As we have seen in the past, visiting parties still largely consist of groups of adults
- Yet this year’s visitors were more likely to attend with significant others and children, and less likely to attend with friends, neighbors, or other family members, compared to the past
 - However, this pattern can primarily be attributed to this year’s increased percentage of out-of-town visitors, who are more likely than locals to visit with their significant others and/or children. In contrast, most locals visit with friends, neighbors, or other family members, or alone (see page 41)

→ **Implication:** This year’s influx of out-of-town visitors has influenced the overall composition of visiting parties at the park. Because out-of-town visitors tend to visit with members of their nuclear families (spouses/significant others and/or children), this year saw an increase in nuclear family groups, and a decrease in visitors accompanied by adults outside of their nuclear families or visiting the park alone.

Visitor profile: Interest in the High Line’s membership program has remained steady—and fairly low—among locals

Q15: Which High Line membership category best describes you? Check one.

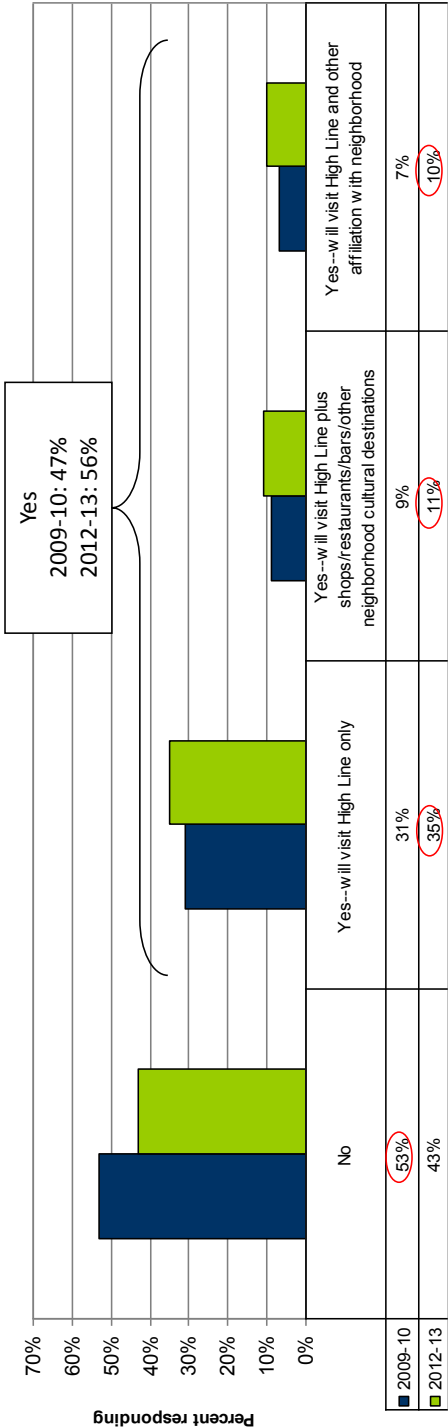


- Although only 4% of respondents are currently members of the High Line or have ever been in the past, almost 1 in 4 respondents indicated that they would consider joining
 - The decreased percentage of respondents who would consider joining can be attributed to this year’s increase in out-of-town visitors—local residents are just as willing to consider becoming a member this year (38%) as they were in 2009-10 (41%)
- Implication: There is a great deal of potential to tap into local visitors’ goodwill for the High Line and expand the base of members.

Detailed Findings: Visiting the High Line

Visiting the High Line: The High Line itself is a greater draw to the area this year than in the park’s opening year

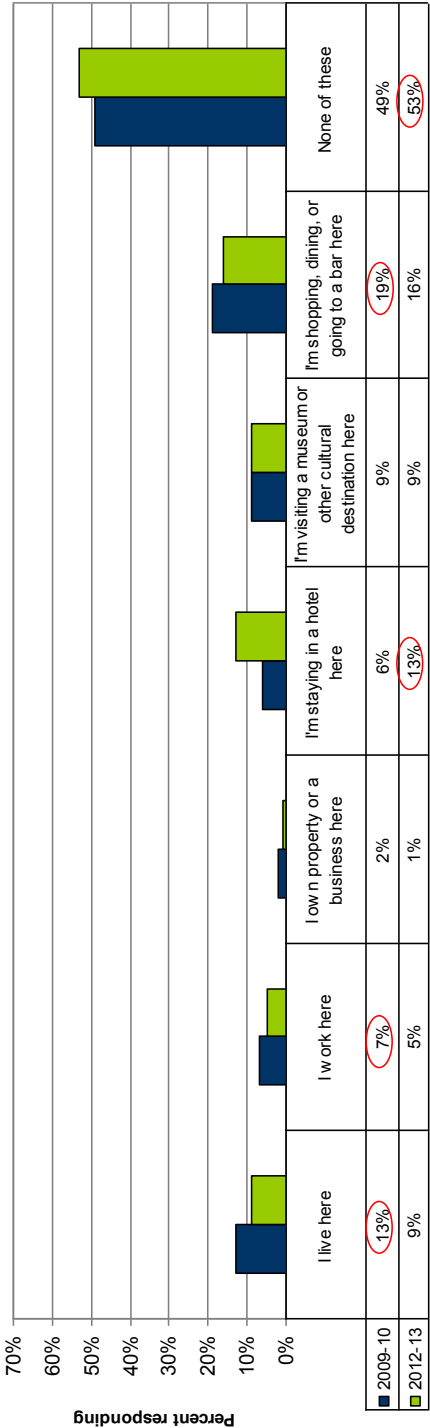
Was the High Line your main reason for coming to this part of Manhattan today? [Combined data from Q9 & Q16]



- The majority of visitors (56%) reported that the park played at least some role in their decision to come to the area
 - This is higher than in 2009-10, when fewer than half (47%) reported that the High Line drew them to the area
 - And in fact, the High Line is the only planned destination in the area for a full one-third of its visitors
- Implication: Since the park’s opening year, more and more visitors view the High Line as a destination in itself. And whether or not the High Line was their main draw to the area, many visitors plan to engage in other neighborhood activities on the day of their visit.

Visiting the High Line: This year, fewer visitors have connections to the High Line’s neighborhood beyond the park itself

Q16: Which of the following describes you? Check all that apply.



- This year, fewer visitors planned to engage in other neighborhood activities (shops, restaurants, and cultural destinations) on the day of their visit—and fewer visitors had other links to the High Line’s neighborhood (living, working, or owning property or a business in the area)
 - Implication: As we saw on the previous page, the High Line is attracting an increasing percentage of visitors who may not have been drawn to the area otherwise. Encouraging these visitors to engage in other area activities could help strengthen the growing neighborhood’s economy—in turn, strengthening the value that the park provides to neighboring businesses and attractions.
- Almost twice as many of this year’s respondents visited a shop, restaurant, or bar in the area, than visited a museum or other cultural destination
 - Implication: Among visitors with other neighborhood plans, social activities are still more common than cultural ones. This will be interesting to track as new cultural destinations, such as the Whitney Museum, open in the area.

Visiting the High Line: Word of mouth is an even more important information source this year than in the past

	2009-10	2012-13
Q7: Where did you get information about the High Line before visiting today? Check all that apply.	n=2123	n=1865
From a friend, family member, or coworker	38%	43%
From a previous visit to the High Line	18%	26%
The High Line's Web site	19%	20%
Newspaper or magazine**	--	14%
Another Web site, blog, or online source**	--	9%
Guidebook	4%	12%
Nowhere (I didn't know about the High Line before today)	7%	6%
Flyer, postcard, calendar, or other mailing from the High Line*	--	3%
NYC Parks Department Web site	2%	3%
Email newsletter from the High Line	2%	2%
The High Line's Facebook page or Twitter feed*	--	2%
City info desk or concierge	1%	2%
Other	12%	12%

*Items not included in the 2009-2010 survey

**Cannot be compared with 2009-10 findings due to changes in survey wording

- 43% of visitors heard about the High Line from a friend, family member, or coworker—up from 38% in the park's opening year
 - However, this increase is due to the influx of out-of-town visitors—among local visitors, word-of-mouth is less of a draw to the park this year than in the past (see page 40)
- Visitors this year were more likely to cite their own previous park visits as an information source, compared to in the past
 - Even though the proportion of repeat visitors has not changed since the park's opening year (see page 21)
 - Implication: Repeat visitors have an increased sense that they know about the High Line through their own past experiences at the park, rather than through an outside information source.
- Online and print media coverage is another important source of information about the park
 - A quarter of visitors heard about the park through a newspaper, magazine, website, or blog
 - And 1 in 5 visitors heard about the park on the High Line's website
 - However, the High Line's own marketing sources, besides the website, are less influential—just 7% of visitors cited the High Line's mailings, newsletters, or social media presence

Visiting the High Line: Visitors to the High Line continue to enjoy the park's natural features, and food consumption is up

	2009-10 n=2131	2012-13 n=1865
Q8: Which of the following have you done (or do you plan to do) on the High Line today? Check all that apply.		
Take a walk	87%	87%
Enjoy the flowers and other plants	61%	58%
People-watch	55%	59%
Take photos*	--	53%
Rest/relax*	--	51%
Spend time with friends	38%	38%
Show somebody else the High Line	24%	19%
Have a meal or snack	17%	23%
Learn about the High Line (its history, construction, etc.)	19%	16%
Enjoy family-friendly activity with my children	7%	5%
Meet new people	6%	6%
See a particular artwork or exhibit	6%	6%
Go for a jog or run	2%	2%
Attend a scheduled event or program	2%	2%
Other	8%	3%

- This year, 87% of visitors took a walk, 58% enjoyed the flowers and plants, and 51% rested and relaxed
 - Implication: The most popular activities on the High Line still involve the park's nature and its tranquil features.
- Visitors during the park's opening year were more likely to learn about the park and show it to others
 - Implication: While positive buzz still draws visitors to the High Line (see page 24), curiosity about the park itself may have peaked during its opening year.
- This year's visitors were more likely to eat a meal or snack, compared to in 2009-10
 - And 68% of people who had a snack this year purchased it on the High Line, while only 32% brought their snack from home
 - In response to an open-ended question regarding what the High Line could do to improve the experience (Q13), 4% said they wanted more food and drink available, and others said they wanted food vendors food and drink to be available year-round (including hot beverages during colder seasons)

*Items not included in the 2009-2010 survey

slovelinett
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○ = significantly higher, $p < .05$

Friends of the High Line 2013

25.

Visiting the High Line: Awareness of—and participation in—the High Line’s programming has increased substantially

Q5: How familiar are you with each of these High Line activities?

	Heard of [% selecting “I’ve heard of this activity” or “I’ve done this activity”]		Done [% selecting “I’ve done this activity”]	
	2009-10	2012-13	2009-10	2012-13
Art exhibitions or installations	33%	51%	9%	17%
Guided walking tours	32%	41%	2%	2%
Performing arts programs*	--	33%	--	4%
Volunteer programs*	--	32%	--	1%
Lectures and talks	21%	29%	2%	2%
Film screenings	14%	30%	1%	2%
Family programs and activities	12%	27%	1%	2%

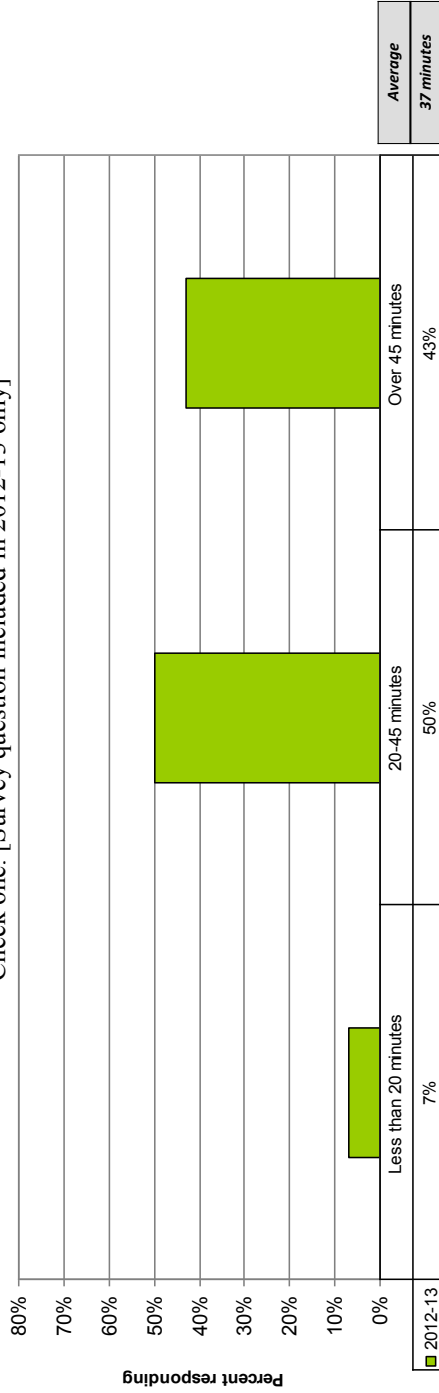
- Awareness of onsite programming has increased significantly since the park’s opening year
- While participation in most scheduled activities remains fairly low, almost 1 in 5 of this year’s visitors reported viewing the park’s art exhibitions/installations, compared to just 1 in 10 in the park’s opening year
 - Implication: Art exhibitions and installations have always been the most widely attended of the High Line’s onsite programs and activities—and their attendance rates have doubled since the park opened in 2009-10. This may be due in part to the fact that they are easily accessible (and stumbled upon) and don’t require scheduling in advance. Or, it may be because the High Line is offering more onsite exhibitions and installations for visitors to enjoy.
- Program participation has increased to an equal extent among all ethnic groups

*Items not included in the 2009-2010 survey

Visiting the High Line: Most visitors stay on the High Line for at least 20 minutes

Q4: Which of the following best describes the total length of your visit today (including time you plan to stay)?

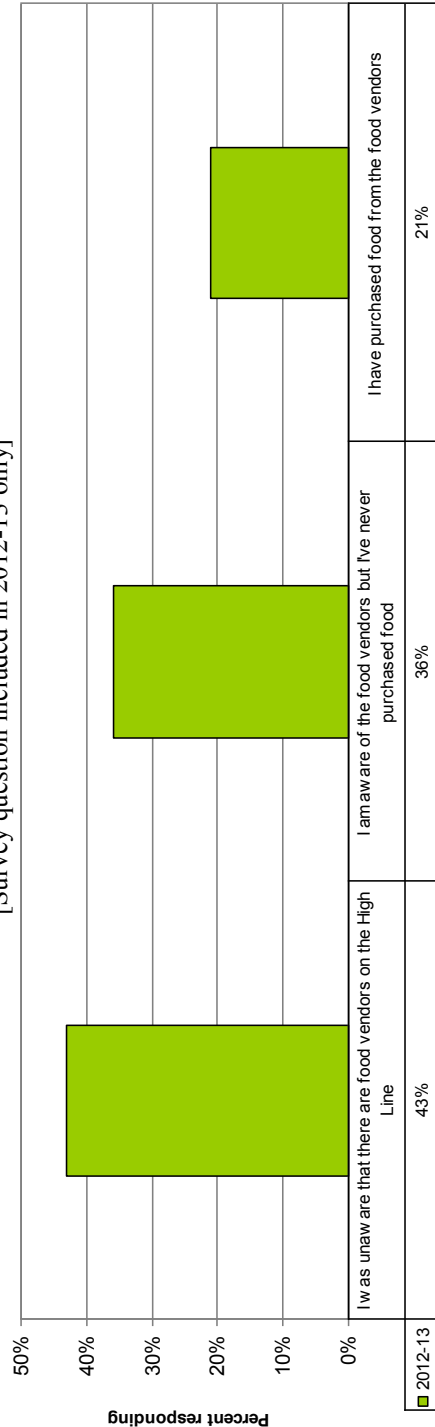
Check one. [Survey question included in 2012-13 only]



- Very few visitors intend to stay for less than 20 minutes
- As we will see on page 51, visitors who do make short visits tend to visit the park more frequently, compared to visitors who plan to stay longer—many even visit multiple times per week
 - And visitors who make short, frequent visits engage in all kinds of activities at the park—they aren't all just getting from one block to another (see page 49)
- Implication: Most visitors intend to stay at the High Line for a relatively lengthy period of time—but a small portion of visitors drop by the park for short, frequent visits.

Visiting the High Line: More than half of visitors are aware of the High Line’s food vendors

Q5: How familiar are you with High Line food? Check one.
[Survey question included in 2012-13 only]



- Just over half of this year’s High Line visitors are at least aware of the High Line’s food vendors, and one quarter of visitors have purchased High Line food
- And as we saw on page 25, among respondents who ate a meal or snack during their visit, two-thirds purchased food from High Line vendors, while only one-third brought food to the park
 - Implication: A majority of visitors are aware of the food on the High Line—and visitors who eat a meal or snack during their visit are already highly likely to use the vendors. However, there could be room to increase awareness of vendors, particularly in areas where they are outside their visibility, heightening awareness among visitors who are not already planning to eat a meal or snack.

Detailed Findings:

Visitor perceptions

Visitor perceptions: Visitors think of the High Line as both a tourist attraction and a community space

Q12: In your opinion, how well do the following words or phrases describe the High Line?
Percent selecting 5 (“No! Doesn’t describe”) to 1 (“Yes! Describes perfectly”)



- A majority of respondents selected “yes, describes perfectly” for each positive descriptor about the High Line
 - Implication: Though there were slight year-to-year changes, overall perceptions of the park are strongly positive.
- Visitors this year were about equally likely to agree that the High Line is a “tourist attraction” and a “community space”
 - However, locals were more likely to view the park as a tourist attraction, and less likely to view it as a community space, compared to out-of-towners—we discuss this finding further on page 43

→ Implication: The High Line is largely perceived as filling the needs of both tourists and locals. However, among locals, there is room to increase perceptions of the park as a community space and decrease perceptions of the park as a tourist attraction

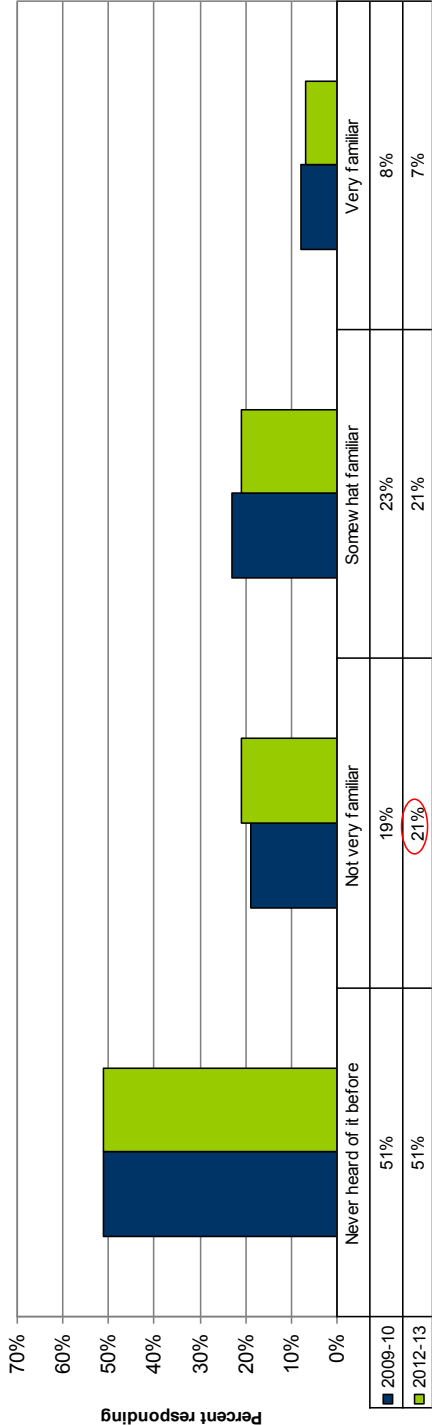
*Items not included in the 2009-2010 survey

Visitor perceptions: Programming, facilities, and crowds featured prominently in visitors’ suggestions for improvement

- We asked visitors in an open-ended question, “*What one thing could the High Line do to improve the experience for you?*”
 - 12% of this year’s respondents suggested improvements to the park’s programming/activities—about 3 times as many as in 2009-10
 - Some respondents suggested that the park could provide a greater variety of activities, such as live music
 - Others suggested that the park provide more of the activities and programming that it currently offers, e.g., more artwork; more walking tours
 - Some just asked for more information about the park’s current activities
 - > **Implication:** As visitors’ awareness of and participation in the High Line’s programming and activities has increased (see page 26), their expectations have increased as well—visitors increasingly hope to engage in a variety of activities at the park, beyond enjoying the nature and scenery.
 - 4% of this year’s respondents mentioned the fact that the High Line can get crowded, whereas very few mentioned crowds in 2009-10
 - Many respondents suggested implementing strategies for crowd control, such as widening the walkways
 - Others suggested limiting access to local residents or members of the High Line during certain times or dates
 - Other responses were similar to what we observed in 2009-10
 - The most common response overall suggested improving the High Line’s facilities (19%), such as increasing the number of restrooms or water fountains, providing shaded areas, or providing seating
 - Some respondents wanted to experience *more* of the High Line—11% suggested expanding the park to cover a larger area, and 3% suggested keeping the park open for longer hours
 - Roughly one-fifth of respondents suggested increased signage: 10% requested more maps or wayfinding signs (e.g., “Have signage towards the entrances to note that it is the High Line; the 30th St. entrance is hard to find”); and 10% requested more informational signage about the park and its content (e.g., “Have signs on the railings describing the surroundings” and “names on trees and plants”)
 - 4% mentioned improving the park’s accessibility
 - And many respondents simply reiterated their positive regard for the High Line; 13% offered a positive comment or said that the park was good as-is

Visitor perceptions: Awareness of Friends of the High Line has not increased since the park’s opening year

Q14: How familiar are you with the nonprofit organization Friends of the High Line?



- Across both fielding years, half of visitors reported that they had never heard of Friends of the High Line prior to the survey
- And those who had heard of Friends of the High Line considered themselves “not very familiar” or “somewhat familiar;” fewer than 1 in 10 respondents considered themselves “very familiar”
 - Implication: There is room to increase visitors’ awareness of Friends of the High Line, if this is of strategic importance to the organization. Communications could aim to both get the word out to visitors who have never heard of the organization and provide further information to those who have some vague familiarity with it.

Detailed Findings: Key differences by visitor segment	
Geographic residence	
Visiting party	
Visitation history	
Program participation	
Day of the week	
Visit length	

Geographic residence: This year's NYC visitors are younger and more ethnically diverse than in the past

	Within New York City		Outside New York City	
	2009-10	2012-13	2009-10	2012-13
Age	<i>n</i> =910	<i>n</i> =488	<i>n</i> =1078	<i>n</i> =1182
24 and under	5% → 14%	4% → 11%		
25-29	13% → 25%	9% → 13%		
30-39	32% → 26%	23%		
40-49	19% → 10%	18%		
50-59	14%	13%		
60 and over	18% → 13%	26% → 17%		
Average age (in years)	43.4 → 38.2	47.7 → 42.9		
Ethnicity (check all that apply)	<i>n</i> =944	<i>n</i> =522	<i>n</i> =1119	<i>n</i> =1226
Caucasian/White	76% → 70%	85% → 81%		
African-American/Black	7% → 12%	2%		
Latino/Hispanic	8% → 11%	4% → 7%		
Asian/Pacific Islander	8%	8%		
Native American	1%	1%		
Other	4%	3%		

- On average, NYC visitors are younger than visitors from out of town
- Park visitors overall have been trending younger since 2009-10—and this trend is especially pronounced among locals
 - The average age of local visitors has decreased by over 5 years since 2009-10
 - We saw an age decrease among out-of-town visitors as well, but to a lesser extent (just over 3 years)
 - Implication: Especially among locals, the High Line is attracting an increasingly young crowd.
- NYC visitors are more ethnically diverse than in the past—but we do not observe this trend among out-of-towners
 - If anything, out-of-town visitors are trending less diverse—this year's out-of-town visitors were more likely to be Caucasian, compared to in the past
 - Implication: The park's NYC visitors are becoming somewhat more representative of NYC's ethnically-diverse population—though there is still room for the High Line to attract an even more diverse crowd among both locals and tourists.

Geographic residence: However, visitors from the High Line's neighborhood are the least ethnically diverse group

	% of visitors identifying as Caucasian	
	2009-10	2012-13
Geographic residence	n=2063	n=1744
Local ZIPs: 10011, 10014, 10001	78%	90%
Manhattan	77%	64%
Other NYC boroughs	66%	58%
Within 15 miles (outside NYC)	66%	60%
Within 45 miles (outside NYC)	85%	80%
Other US (over 45 miles from NYC)	85%	82%
Other country	85%	77%

- While NYC visitors overall have become more ethnically diverse this year (see previous page), visitors from the High Line's immediate neighborhood show the opposite trend
 - This year, visitors from the High Line's immediate neighborhood are the least ethnically diverse group – 90% self-identified as Caucasian, compared to a combined average of 74% from other geographic areas
- In contrast, the High Line is drawing an increasingly diverse group of visitors from the rest of Manhattan, beyond its local neighborhood
- And visitors from outside the US are also more ethnically diverse this year, compared to in the past

Geographic residence: NYC residents visit the park more frequently than out-of-town residents

- New York City residents visit the High Line more frequently than visitors who live outside New York City
 - Implication: Although the proportion of out-of-town residents visiting the High Line has increased since the park opened (see page 16), local visitors tend to incorporate the park into their monthly—or even weekly—routines.

	Q17: Area of residence	
	Within New York City	Outside New York City
Q1: Have you been to the High Line before? If so, how often do you visit? [2012-13 RESPONDENTS ONLY*]	n=540	n=1249
No—This is my first visit	14%	73%
Yes—I come here once a year or less	8%	14%
Yes—I come here a few times per year	41%	10%
Yes—I come here a few times per month	21%	2%
Yes—I come here a few times per week	16%	1%

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Geographic residence: Out-of-town visitors visit the area for the High Line itself; locals combine park visits with other area activities

	Q17: Area of residence	
	Within New York City	Outside New York City
Q9 & Q16: Was the High Line your main reason for coming to this part of Manhattan today? [2012-13 RESPONDENTS ONLY*]	n=529	n=1238
No	53%	38%
Yes—will visit High Line only	26%	40%
Yes—will visit High Line and shops/restaurants/bars/other neighborhood cultural destinations	11%	12%
Yes—will visit High Line and other affiliation with neighborhood	10%	10%

- The High Line itself is a particularly strong draw for out-of-town visitors
 - Over half of out-of-town visitors reported that the High Line was their main reason for visiting the neighborhood
 - And 2 in 5 out-of-town visitors came to this part of Manhattan to visit the High Line only
- In comparison, local visitors tend to combine visits to the High Line with other neighborhood activities
 - Among local visitors, just over 1 in 3 were in Manhattan mainly to visit the High Line, and only 1 in 4 came to the neighborhood to visit the High Line only
 - Implication: While out-of-town visitors view the High Line as a destination in itself, many local visitors visit the park casually, stopping by on their way to engage in other activities.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Geographic residence: The High Line’s own marketing sources are more influential for NYC visitors than out-of-town visitors

	Q17: Area of residence	
	Within New York City	Outside New York City
Q7: Where did you get information about the High Line before visiting today? [2012-13 RESPONDENTS ONLY]	n=539	n=1249
From a friend, family member, or coworker	36%	47%
From a previous visit to the High Line	47%	18%
The High Line’s Web site	18%	21%
Newspaper or magazine	14%	15%
Guidebook	3%	16%
Another website, blog, or online source	7%	10%
Nowhere (I didn’t know about the High Line before today)	5%	6%
NYC Parks Department Web site	5%	2%
Email newsletter from the High Line	6%	1%
Flyer, postcard, calendar, or other mailing from the High Line	5%	1%
The High Line’s Facebook page or Twitter feed	3%	1%
City info desk or hotel concierge	<1%	2%
Other	14%	11%

- Among NYC visitors, the predominant source of information about the High Line was visitors’ own prior experience at the park
 - Almost half of this year’s NYC visitors reported “a previous visit to the High Line” as their information source—compared to just 1 in 5 out-of-towners
 - Implication: New York City visitors are already highly familiar with the park—many do not seek out information about it beyond their own knowledge and experience. In contrast, out-of-town visitors are more likely to seek information about the park before they visit.
- NYC visitors were also more likely to hear about the park through the High Line’s mailings and social media, while out-of-town visitors were more likely to hear about the park through word-of-mouth, guidebooks, websites not run by the High Line, and city info desks/hotel concierges
 - Implication: When they do seek out information about the park, NYC visitors are more likely to turn to the High Line’s own marketing sources, whereas out-of-town visitors typically turn to sources not affiliated with the High Line.
- We also found noteworthy year-to-year changes in how NYC visitors and out-of-towners heard about the High Line (see next page)

Geographic residence: The word about the High Line is still spreading—particularly outside of New York City

	Within New York City		Outside New York City	
	2009-10	2012-13	2009-10	2012-13
Q7: Where did you get information about the High Line before visiting today?	n=964	n=539	n=1126	n=1249
From a friend, family member, or coworker	36%	36%	40% → 47%	
From a previous visit to the High Line	31% → 47%		7% → 18%	
The High Line's Web site	17%	18%	21%	21%
Newspaper or magazine*	--	14%	--	15%
Another website, blog, or online source	6%	7%	8%	10%
Guidebook	1% → 3%		6% → 16%	
Nowhere (I didn't know about the High Line before today)	4%	5%	9% → 6%	
Flyer, postcard, calendar, or other mailing from the High Line*	--	5%	--	1%
NYC Parks Department Web site	3%	5%	2%	2%
Email newsletter from the High Line	3% → 6%		1%	1%
The High Line's Facebook page or Twitter feed	--	3%	--	1%
City info desk or hotel concierge	<1%	<1%	1%	2%
Other	13%	14%	11%	11%

- Previous visits act as their own “information source” for an increasing proportion of visitors (both locals and out-of-towners)
- Among out-of-towners, word-of-mouth is a more prevalent information source this year than it was in the past
 - But NYC visitors cite word-of-mouth at similar rates this year as in 2009-10
 - And this year, slightly fewer out-of-town visitors said they *didn't* know about the park before visiting
 - Implication: Outside of New York City, people are spreading the word about the High Line even more this year than in the past. Within the city, word-of-mouth draws in visitors at similar rates as it did in the park's opening year.

**Cannot be compared with 2009-10 findings due to changes in survey wording

Geographic residence: NYC visitors are more likely than out-of-towners to visit alone or with friends

	Q17: Area of residence	
	Within New York City	Outside New York City
Q2: Did you come alone today, or with others? [2012-13 RESPONDENTS ONLY]	n=541	n=1248
With a friend, neighbor, or other family member	46%	35%
With my spouse/partner/significant other	26%	46%
Alone	33%	18%
With child(ren) under 18	6%	9%
With a tour group	<1%	<1%
Other	4%	3%

- NYC residents are more likely to come to the High Line alone, compared to out-of-town residents
 - And this year, even more NYC residents visited alone, compared to in the past; one-third visited alone in 2012-13, compared to only one-fourth in 2009-10
 - Meanwhile, the percentage of out-of-town visitors at the park alone did not change over time (18% in 2012-13; 19% in 2009-10)
 - Implication: While out-of-town visitors tend to bring others with them to the High Line at the same rate, there is a growing trend among locals to visit the park alone.
- New York City residents also tend to visit with friends, neighbors, or family members other than their spouses or children, while out-of-town visitors tend to visit with their significant others
 - These findings were observed across both fielding years
 - And, as we will see on the next page, locals are more motivated to socialize at the High Line, compared to out-of-town visitors
 - Implication: Local residents often visit the park alone or to socialize with adults outside of their immediate families, whereas out-of-town residents tend to make family visits.

Geographic residence: Out-of-town visitors come to see the High Line, while locals come to hang out, socialize, and relax

	Q17: Area of residence	
	Within New York City	Outside New York City
Q3: What is the main reason you came to the High Line today? [2012-13 RESPONDENTS ONLY]	n=1439	n=2295
I had heard about it and wanted to check it out	8%	56%
To spend time in a beautiful outdoor setting	44%	19%
To socialize, relax, or just hang out	13%	3%
I was brought by others—I wasn't the decision maker	5%	8%
To do something new and unusual in the city	6%	5%
To get from one block to another, above the bustle of the street	6%	1%
I saw it while passing by and decided to check it out	3%	2%
Other	14%	4%

- Out-of-town visitors were far more likely than New York City residents to have “heard about” the park and “wanted to check it out”
 - And NYC residents were significantly less likely to cite this reason this year (19%) than they were in 2009-10 (9%)
 - However, the percentage of out-of-town visitors coming to the park to “check it out” has not changed significantly over time (58% in 2012-13; 56% in 2009-10)
 - Implication: “Buzz” about the park continues to be a major draw for out-of-town visitors. Yet, among locals, it was less of a draw this year than it was in the park’s opening year.
- NYC visitors are more likely to visit in order to spend time outdoors, socialize, relax, or hang out, or get from one block to another above the street, compared to out-of-town residents
 - Implication: Local residents tend to use the park as a space to engage in other activities, while out-of-town visitors hope to “check out” the park itself.

Geographic residence: There is room to bolster locals' perceptions of the High Line as a community space

	Q17: Area of residence	
	Within New York City	Outside New York City
Q12: In your opinion, how well do the following words or phrases describe the High Line? [Respondents selecting "Yes! Describes perfectly"; 2012-13 RESPONDENTS ONLY*]	n=695	n=1081
Clean	81%	81%
Safe	79%	78%
Easy to use and navigate	69%	67%
Welcoming	71%	71%
Tourist attraction	72%	66%
Community space	58%	63%
Crowded	18%	12%

- Locals and out-of-town visitors alike have overwhelmingly positive perceptions of the park
- However, just over half of locals felt that the phrase "community space" describes the park, compared to almost two-thirds of out-of-town visitors
- Locals were also more likely than out-of-town visitors to see the park as a "tourist attraction" and "crowded"
 - Implication: A majority of out-of-town and local visitors alike view the park as a community space. However, this perception is strongest among out-of-town visitors. This is true even though locals are more likely to actually use the park as a community space, making frequent, brief visits and engaging in a variety of activities at the park. The High Line might consider ways to help locals see the park as their own space, rather than a space for tourists.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Geographic residence: Locals are more aware of Friends of the High Line and more interested in membership than are non-locals

	Q17: Area of residence	
	Within New York City	Outside New York City
Q14: How familiar are you with the nonprofit organization Friends of the High Line [2012-13 RESPONDENTS ONLY]?	n=537	n=1245
Never heard of it before	32%	58%
Not very familiar	25%	20%
Somewhat familiar	29%	17%
Very familiar	14%	4%
Q15: Which High Line membership category best describes you? [2012-13 RESPONDENTS ONLY]?	n=537	n=1231
I'm not a member and would not consider joining	53%	82%
I'm not a member but would consider joining	40%	17%
I am currently a member	6%	1%
I used to be a member but am not now	1%	<1%

- NYC residents are more familiar with Friends of the High Line, compared to out-of-towners
 - This has been the case since the park's opening year
- And NYC residents are more likely to be members, and more willing to consider becoming members, compared to out-of-towners
 - Additionally, among out-of-towners, interest in membership has significantly decreased this year compared to in 2009-10
 - This year, only 17% of non-locals who aren't currently members would consider joining, compared to 26% in 2009-10
 - In contrast, locals are equally likely to be members, and equally interested in membership, compared to in the park's opening year
 - Implication: Though out-of-town visitors are hearing about and coming to the park with increased frequency (see page 16), they are somewhat less interested in membership this year compared to in the past.

Visiting party: Groups with children tend to be composed of nuclear family members only

	Q2: Visiting party	
	Attending with children	Attending without children
Q2: Did you come alone today, or with others? [2012-13 RESPONDENTS ONLY*]	n=148	n=1716
With a friend, neighbor, or other family member	26%	39%
With my spouse/partner/significant other	46%**	39%
Alone	--	25%
With child(ren) under 18	100%	--
With a tour group	1%	<1%
Other	1%	4%

** This finding approached, but did not reach, statistical significance due to the small sample size of 2012-13 respondents attending with children

Visitors attending with children tend to also be with their spouses, partners, or significant others—and they are less likely to be with adults outside their immediate families

- Across both years, almost half of visitors attending with children were also with a significant other, whereas just over one-third of visitors attending without children were with a significant other
- And across both years, just one in four visitors attending with children also came to the park with a friend, neighbor, or other family member—compared to 2 in 5 visitors attending without children

→ Implication: Families visiting the park tend to be nuclear families; mixed groups including parents, their children, and other adults outside the immediate family are relatively rare.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Visiting party: Groups with children often come to the High Line to check out the park itself

	Q2: Visiting party	
	Attending with children n=136	Attending without children n=1642
Q3: What is the main reason you came to the High Line today? [2012-13 RESPONDENTS ONLY*]		
I had heard about it and wanted to check it out	52%	41%
To spend time in a beautiful outdoor setting	26%	27%
To socialize, relax, or just hang out	2%	7%
I was brought by others—I wasn't the decision maker	6%	7%
To do something new and unusual in the city	4%	5%
To get from one block to another, above the bustle of the street	1%	2%
I saw it while passing by and decided to check it out	3%	3%
Other	5%	7%

- General buzz about the park is a stronger draw for visitors attending with children, compared to those attending without children
 - Among visitors attending with children, over half came to the park for this reason, compared to 41% of visitors attending without children
- Visitors attending without children were more than 3 times as likely to come to the park in order to socialize, relax, or just hang out
- We observed this pattern of findings across both local and out-of-town visitors
 - Implication: For locals and out-of-town residents alike, groups visiting the High Line with children visit specifically in order to check out the High Line, while those attending without children are more likely to use the park as a space to socialize, relax, or hang out.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Visiting party: The High Line itself is a particularly strong draw for groups visiting with children

	Q2: Visiting party	
	Attending with children	Attending without children
Q9 & Q16: Was the High Line your main reason for coming to this part of Manhattan today? [2012-13 RESPONDENTS ONLY**]	n=146	n=1693
No	37%	44%**
Yes—will visit High Line only	42%**	35%
Yes—will visit High Line and shops/restaurants/bars/other neighborhood cultural destinations	10%	11%
Yes—will visit High Line and other affiliation with neighborhood	11%	10%

** This finding approached, but did not reach, statistical significance due to the small sample size of 2012-13 respondents attending with children

- Visitors attending with children are more likely to visit this area of Manhattan for the High Line itself, compared to visitors attending without children
 - In 2012-13, 63% of groups attending with children reported that the High Line was their main reason for coming to the neighborhood, compared to 56% of visitors attending without children
 - And 42% of visitors attending with children planned to visit the High Line only, compared to 35% of visitors attending without children
- Implication: Visitors bringing children to the park tend to come to the neighborhood specifically to visit the High Line, and are less likely than adult-only groups to explore the neighborhood beyond the park itself

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Visiting party: Groups with children tend to make longer, more infrequent, visits to the park

	Q2: Visiting party	
	Attending with children	Attending without children
Q1: Have you been to the High Line before? If so, how often do you visit? [2012-13 RESPONDENTS ONLY*]	n=148	n=1714
No—This is my first visit	61%**	54%
Yes—I come here once a year or less	10%	12%
Yes—I come here a few times per year	21%	20%
Yes—I come here a few times per month	4%	8%
Yes—I come here a few times per week	3%	6%
Q4: Which of the following best describes the total length of your visit today (including time you plan to stay)? [2012-13 RESPONDENTS ONLY]	n=148	n=1705
Less than 20 minutes	5%	7%
20-45 minutes	36%	52%
Over 45 minutes	59%	41%

- Visitors attending the High Line without children visit the High Line more frequently, compared to those attending with children
- However, visitors attending with children take longer visits to the High Line—59% planned to stay over 45 minutes on the day they were surveyed, compared to just 41% of those visiting without children
 - This may be in part because they are participating in High Line programs—9% of visitors attending with children this year participated in a scheduled event or program, compared to just 2% of visitors attending without children
 - Implication: Visitors attending with children make the most of their infrequent visits by spending a long time at the park—and sometimes by participating in the High Line’s programs. In contrast, those who attend without children visit the park more casually, stopping by for frequent, short visits

** This finding approached, but did not reach, statistical significance due to the small sample size of 2012-13 respondents attending with children

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Visiting party: Groups with children plan to engage in a variety of activities at the High Line

	Q2: Visiting party	
	Attending with children n=148	Attending without children n=1711
Q8: Activities on the High Line [2012-13 RESPONDENTS ONLY*]		
Take a walk	88%	87%
Enjoy the flowers and other plants	61%	58%
People-watch	54%	60%
Take photos	64%	53%
Rest/relax	48%	51%
Spend time with friends	39%	38%
Show somebody else the High Line	25%	18%
Have a meal or snack	30%	23%
Learn about the High Line (its history, construction, etc.)	19%	16%
Enjoy family-friendly activity with my children	34%	2%
Meet new people	6%	6%
See a particular artwork or exhibit	7%	6%
Go for a jog or run	1%	2%
Attend a scheduled event or program	9%	2%
Other	3%	3%

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

- Overall, visitors attending with children planned to engage in similar activities at the park, compared to visitors attending without children
- Visitors attending with children were more likely to take photos
 - Implication: Families at the park are particularly interested in capturing the memory of their visit. The High Line might consider providing professional photographers as an additional revenue stream for the park
- Visitors attending with children were slightly, but not significantly, more likely to eat a meal or snack at the park, compared to visitors attending without children
 - However, among those who ate a meal or snack, visitors attending with children were significantly more likely to purchase it from High Line vendors—85% of visitors attending with children purchased their meal or snack on the High Line, compared to 66% of visitors attending without children

Visit length: Visitors who make the longest visits are those who came to “check out” the High Line

	Q4: Visit length		
	Less than 20 minutes	20-45 minutes	Over 45 minutes
Q3: What is the main reason you came to the High Line today? (2012-13 RESPONDENTS ONLY*)	n=126	n=886	n=762
I had heard about it and wanted to check it out	20% ▼	41%	46% ▲
To spend time in a beautiful outdoor setting	28%	29%	24%
To socialize, relax, or just hang out	6%	6%	7%
I was brought by others—I wasn't the decision maker	10%	7%	7%
To do something new and unusual in the city	3%	4%	7%
To get from one block to another, above the bustle of the street	9% ▲	3%	<1% ▼
I saw it while passing by and decided to check it out	13% ▲	3%	1%
Other	12%	7%	7%

- Visitors planning a 45-minute or longer stay on the High Line were more likely to have “heard about the park and wanted to check it out,” compared to visitors planning a shorter stay
 - And respondents who came to Manhattan for the main purpose of visiting the High Line also tend to stay at the park longer than those who came to Manhattan mainly for other reasons
 - Implication: Visitors who heard about the park before their visit, coming to Manhattan specifically to check it out, tend to make the longest visits to the park.
- Among visitors planning short stays of 20 minutes or less, 1 in 10 were passing through to get from one block to another
 - Implication: Some visitors pass through the park simply as a means of getting from one block to another—but most visitors come in order to enjoy the park, even if they only intend to stay briefly.

Visit length: Visitors who stay the longest have the most positive perceptions of the park

	Q4: Visit length		
	Less than 20 minutes	20-45 minutes	Over 45 minutes
Q12: Perceptions of the High Line [Respondents selecting "yes! Describes perfectly"; 2012-13 RESPONDENTS ONLY*]	n=127	n=909	n=770
Clean	80%	78%	82%
Safe	76%	76%	82% Δ
Easy to use and navigate	65%	66%	72% Δ
Welcoming	71%	67%	77% Δ
Tourist attraction	48%	48%	45% ∇
Community space	61%	57%	67% Δ
Crowded	18% Δ	12%	10%

- Visitors who plan to stay at the High Line for over 45 minutes...
 - ...view the park as being safer, easier to use and navigate, more welcoming, and more of a community space;
 - ...are less likely to view the High Line as a tourist attraction; and
 - ...are less likely to view the park as crowded, compared to visitors planning shorter stays
 - Implication: It may be that long stays at the park lead visitors to see it in an especially positive light—or, visitors may plan to make long stays because they already have positive perceptions of the park.

Visitation history: First-time visitors typically make long visits, while frequent visitors make the shortest visits

	First visit	Once a year or less	A few times per year	A few times per month	A few times per week
Q4: Which of the following describes the total length of your visit today (including time you plan to stay)? (2012-13 RESPONDENTS ONLY*)	n=1023	n=224	n=361	n=143	n=106
Less than 20 minutes	5%	7%	7%	8%	24%
20-45 minutes	47%	51%	56%	56%	50%
Over 45 minutes	48%	42%	37%	36%	26%
Average length of visit	38 minutes	37 minutes	36 minutes	36 minutes	33 minutes

- Among first-time visitors, about half plan to stay at the park for 20-45 minutes, and about half plan to stay for 45 minutes or longer—very few plan to stay for less than 20 min.
- One in four respondents who come to the park a few times per week plan to make a short (20 minute or less) visit—for respondents attending the park less frequently, that figure is less than 1 in 10
- And although NYC residents tend to make shorter visits than out-of-towners on average, we saw this same pattern of findings among both NYC residents and out-of-town visitors
 - Implication: Among locals and tourists alike, visitors who come to the High Line frequently are more likely to drop by for short visits, compared to those visiting the park less frequently. And those who visit less frequently tend to stay at the park for longer periods of time.

Visitation history: Repeat visitors engage in a wider variety of activities at the park than first-time visitors do

	First-time visitors	Repeat visitors
Q8: Which of the following have you done (or do you plan to do) on the High Line today? [2012-13 RESPONDENTS ONLY*]	n=835	n=1028
Take a walk	89%	85%
Enjoy the flowers and other plants	57%	59%
People-watch	56%	64%
Take photos	64%	41%
Rest/relax	49%	53%
Spend time with friends	33%	45%
Show somebody else the High Line	11%	29%
Have a meal or snack	21%	27%
Learn about the High Line (its history, construction, etc.)	23%	8%
Enjoy family-friendly activity with my children	5%	4%
Meet new people	5%	7%
See a particular artwork or exhibit	5%	8%
Go for a jog or run	1%	3%
Attend a scheduled event or program	2%	3%
Other	2%	4%

	First-time visitors	Repeat visitors
Q9: Was the High Line your main reason for coming to this part of Manhattan today? [2012-13 RESPONDENTS ONLY*]	n=824	n=1019
Yes	74%	48%
No	26%	52%

- Three-quarters of first-time visitors came to the area specifically for the High Line, compared to under half of repeat visitors
 - This pattern holds true among local and out-of-town visitors alike
- And first-time visitors are more interested in learning about and photographing the High Line, compared to repeat visitors
- In contrast, repeat visitors are more likely to people-watch, socialize, eat, or exercise at the park
 - Implication: First-time visitors are interested in learning about and photographing the High Line itself. However, those who return to the High Line for repeat visits tend to use it as a community space where they engage in a variety of activities.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Program participation: The High Line’s program participants tend to be local residents and repeat visitors to the park

	Q5: Participated in at least one High Line program or activity	
	Yes	No
Q1: Visitation history [2012-13 RESPONDENTS ONLY]	n=365	n=1454
This is my first visit	27%	62%
I come here once a year or less	11%	12%
I come here a few times per year	32%	17%
I come here a few times per month	16%	6%
I come here a few times per week	14%	4%

- Even though this year saw an uptick in program participation among first-time visitors (see next page), on the whole, program participants tend to be repeat visitors
 - Implication: The High Line’s programs and activities are especially popular among frequent visitors to the park. This could be because frequent visitors are the most familiar with the park—and thus highly aware of its offerings—or because visitors who enjoy the park’s activities tend to keep coming back.

Program participation: Visitors who are less familiar with the park are beginning to participate in the High Line's programming

	Year	
	2009-10	2012-13
Percent of respondents participating in <u>at least one</u> High Line program		
Q17: Geography	n=211	n=352
Within New York City	72%	53%
Outside New York City	28%	47%
Q1: Visitation History	n=213	n=365
This is my first visit	15%	27%
I come here once a year or less	10%	11%
I come here a few times per year	36%	32%
I come here a few times per month	27%	16%
I come here a few times per week	12%	14%

- More out-of-town visitors *and* more first-time visitors to the park participated in High Line programs and activities than we saw in 2009-10
 - There were significant increases in both areas compared to the survey's baseline wave
 - Implication: In the past, program participation was somewhat limited to local residents and frequent park visitors, who were likely aware of these programs due to their high familiarity with the park. This year, first-time visitors and out-of-town residents have become more likely to participate in High Line programs and activities.

Program participation: Visitors who participate in the High Line's programming are highly satisfied with the park overall

	Q5: Participated in at least one High Line program or activity	
	Yes	No
Q11: Likelihood to recommend the High Line [2012-13 RESPONDENTS ONLY*]	n=360	n=1432
I probably would not recommend a visit here	<1%	<1%
Yes, but only if they had already seen other must-see destinations	16%	23%
Yes, under any circumstance—the High Line is a must-see destination	84%	76%
Q2: Visiting party [2012-13 RESPONDENTS ONLY*]	n=365	n=1454
With a friend, neighbor, or other family member	41%	37%
With my spouse/partner/significant other	30%	43%
Alone	30%	21%
With child(ren) under 18	8%	8%
With a tour group	1%	<1%
Other	4%	4%

- Program participants are more willing to recommend the High Line to others as a “must-see” destination, compared to visitors who have never participated in the High Line’s programming

- Implication: Cause and effect cannot be determined with certainty here, but the relationships between these factors are evident. It may be that participating in High Line programming increases visitors’ overall satisfaction with the park, which in turn increases their enthusiasm for recommending the park to others. However, it could be that high satisfaction with the park leads certain visitors to seek out and participate in the High Line’s programming and become engaged in more/different ways.

Day of the week: Weekday visitors are generally more satisfied with the park, compared to weekend visitors

	Day of survey	
	Weekday	Weekend
Q12: In your opinion, how well do the following words or phrases describe the High Line? [Respondents selecting "Yes! Describes perfectly"; 2012-13 RESPONDENTS ONLY*]	n=1233	n=583
Clean	82%	76%
Safe	78%	78%
Easy to use and navigate	68%	67%
Welcoming	72%	70%
Tourist attraction	68%	68%
Community space	62%	60%
Crowded	10%	17%
Q11: If friends asked you what to do while visiting New York, would you recommend a visit to the High Line? [2012-13 RESPONDENTS ONLY*]	n=1247	n=589
Yes, under any circumstances—the High Line is a "must-see" destination	80%	73%
Yes, but only if they'd already seen other "must-see" destinations	20%	26%
No—I probably wouldn't recommend a visit here	<1%	1%

- A vast majority of visitors to the High Line on both weekends and weekdays are highly likely to recommend the park and have strongly positive perceptions of it
 - Slight differences of note: more weekday visitors see the park as "clean" and fewer see it as "crowded" compared to weekend visitors
- Weekday visitors are also more willing than weekend visitors to recommend the park as a "must-see" under any circumstances
 - Implication: Weekend visitors may be feeling the impact of crowds at the High Line to a greater extent than weekday visitors—and this seems to be limiting their overall enthusiasm for the park. If the High Line decides to experiment with ways to control crowding, such efforts may have the greatest positive impact on weekends.

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Day of the week: Weekday visitors are more likely to visit alone and without children, compared to weekend visitors

	Day of survey	
	Weekday	Weekend
Q2: Did you come alone today, or with others? [2012-13 RESPONDENTS ONLY*]	n=1270	n=597
With a friend, neighbor, or other family member	36%	40%
With my spouse/partner/significant other	39%	41%
Alone	26%	17%
With child(ren) under 18	6%	11%
With a tour group	<1%	<1%
Other	3%	4%
Q17: Area of residence [2012-13 RESPONDENTS ONLY*]	n=1222	n=569
Within NYC	29%	32%
Outside NYC	71%	68%

- One quarter of weekday visitors came to the High Line alone on the day they were surveyed, compared to only 17% of weekend visitors
- While weekend visitors were about twice as likely as weekday visitors to come to the park with children (though this is still a small minority)
- New York City residents and out-of-towners did not differ in their tendency to visit the High Line on weekdays or weekends

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Day of the week: Overall, visitors on weekdays and weekends engage in fairly similar activities at the park

	Day of survey	
	Weekday	Weekend
Q8: Activities on the High Line [2012-13 RESPONDENTS ONLY*]	n=1271	n=595
Take a walk	86%	89%
Enjoy the flowers and other plants	59%	56%
People-watch	58%	62%
Take photos	55%	50%
Rest/relax	51%	50%
Spend time with friends	36%	42%
Show somebody else the High Line	18%	21%
Have a meal or snack	24%	22%
Learn about the High Line (its history, construction, etc.)	18%	13%
Enjoy family-friendly activity with my children	4%	5%
Meet new people	7%	4%
See a particular artwork or exhibit	7%	4%
Go for a jog or run	2%	3%
Attend a scheduled event or program	2%	3%
Other	3%	3%

- However, weekend visitors to the park were slightly more likely to spend time with friends, compared to weekday visitors
- And although these activities were ranked relatively low by everyone, weekday visitors were somewhat more interested in learning about the High Line, meeting new people, and seeing a particular artwork or exhibit
 - Implication: Weekday visitors may be somewhat more interested in expanding their horizons by meeting new people and learning/seeing new things, compared to weekend visitors.
- Weekend and weekday visitors were equally likely to eat a meal or snack on the day of their visit—but weekend visitors were more likely to purchase food from High Line vendors
 - Of those who ate a meal or snack at the High Line, 74% of weekend visitors purchased it at the park, compared to 65% of weekday visitors

* Though this table shows 2012-13 respondents only, we observed the same pattern of findings in 2009-10

Recommendations

Recommendations: Overview: This is my High Line



- It is our understanding that a primary goal of the Friends of the High Line is to “cultivate a vibrant community” around the park
 - Offering a scenic public space for locals to gather
 - In addition to drawing both locals and out-of-towners alike to experience the beauty and innovation of a preserved and transformed almost-forgotten historic site
- Although we do not have access to overall visitation numbers, our data suggest that the composition of the visitor base is shifting, with an increasing proportion of out-of-town visitors coming to the High Line in relation to the proportion of visiting locals
- While doubling the visitation from beyond the United States is a positive sign of increased global recognition, we understand that the High Line wants to ensure that this international appreciation does not come at the expense of losing the feel and benefits of a neighborhood park
- Therefore, the recommendations to follow center around the goal of developing a sense of ownership among local visitors and residents, so that they feel this is their park
 - Building allegiances, strengthening ties, and managing perceptions so that local New Yorkers, including neighborhood residents, continue to use the space as the Friends of the High Line intended from the beginning ...
 - ... while neither dismissing nor compromising the positive way in which the park is drawing attention from around the world
 - The High Line may already be doing some of the things proposed below to a limited degree, or may find some tactical suggestions more or less appealing and/or practical; we hope that, at minimum, the spirit of the recommendations are useful for generating new ideas and strategies

Recommendation #1: Increase opportunities for members to congregate and enjoy shared experiences at the High Line

- The findings show that there is a pronounced opportunity for Friends of the High Line to expand its membership base, which would of course increase financial resources, but could also go a long way in developing a stronger sense of ownership and community, including among local residents
 - As in the past, half of High Line visitors have never heard of the Friends of the High Line organization, though this year a quarter of visitors say they would consider joining
- Currently, the High Line offers members-only tours every month; increasing members-only social events (or special members-only hours), even for the lower levels of membership, could give locals more opportunities to experience the park as “their own”
 - In a sense, members-only events could serve as an indirect proxy for “local-only” events, accommodating locals’ desire to socialize at the park while furthering the High Line’s desire to foster a neighborhood space
 - We are not suggesting such events should be *positioned* as locals-only events, as that could potentially alienate others and come across as coddling locals; instead, they could be positioned as building a community of and thanking supporters
 - The locals’ dissatisfaction with the crowds and their sense that the High Line is a tourist destination could mean that motivation to join in order to attend these events would be strong
 - Increasing communications about members-only events could serve to increase awareness of membership generally, particularly given that many visitors expressed a desire for more (and more diverse) programming
- To further encourage local membership, consider creating a group membership package specifically for people employed in neighborhood businesses and/or who reside in the neighborhood
 - Together, individuals would opt-in to a lower/mid-level membership program that would cost less as a group to join than it would cost per individual (which differs from the corporate membership program)
 - The High Line could recognize these members by giving them some unique way to identify themselves, but even the existence of a “local” group membership would be a way for the High Line to show special appreciation for those in its neighborhood

Recommendation #2: Foster ways in which locals can become invested stakeholders and ambassadors for the High Line

- While local members may highly value opportunities to experience the High Line as “their” park, any privileging of locals should be balanced with continued—or increased—hospitality to out-of-towners
- Membership can be promoted to locals not simply as offering benefits such as members-only events, but also as a way for locals fulfill the role of “host” to those who visit *their* park
 - Membership can be positioned as a way to keep the park open, free, and inviting to those who come from around the world
 - Ways in which the presence of the High Line has benefitted the neighborhood, economically and otherwise, could be highlighted in membership materials
 - Members could have access to a special portal on the High Line Web site that features a kind of dashboard of metrics (such as visitation numbers, number of Facebook fans, amounts raised through membership, etc.), so that they can have an insider’s look into how *their* park is doing
- Explore creative ways to strengthen the implied presence of locals at the park, which can serve to even further extend a sense of hospitality both to out-of-towners and other locals
 - For example, invite locals to share their “favorites” about the High Line and about its surrounding neighborhoods, in terms of past (perhaps quintessentially “New York”) experiences had there and/or in terms of favorite spots and hidden gems
 - Introducing High Line visitors to the neighborhood may give them more reasons to return in the future
 - These “favorites” could be shared both online as well as onsite
- Consider creating a council of people who are hand-selected to represent a cross-section of local residents who meet with select staff on a regular basis to engage in brainstorming to help with decision-making (for example, about programming)
 - This idea is further developed on the following page

Recommendation #3: Assemble a visitor advisory group that gives locals an active ongoing voice

- A visitor advisory group or panel would be a powerful vehicle for the High Line to use to reach out specifically to its local communities and to put the institution into close dialogue with its visitors
- Consisting of a diverse group of local residents, a visitor advisory group would provide a way to delve deeply into locals' perceptions and needs while giving them a voice in decision-making
 - This would not need to diminish the role of the current High Line Council which, following the model used by many cultural institutions, requires a substantial minimum donation
 - This group, instead, would be positioned as a partnership that does not require anything from either side (such as donations from participants or benefits from the High Line); High Line Council members could even be invited to occasionally participate alongside this group
 - Many museums and cultural institutions are beginning to work regularly with such visitor councils as part of a larger trend toward democratizing their institutions, and having such a council at the High Line could go a long way toward increasing 1) the perception that it is a community space, and 2) a sense of local ownership and investment
- While the onsite tracking study has afforded a clear understanding of trends in visitors' motivations, perceptions, demographics, and self-reported behaviors, regular meetings between staff and local visitors would help further unlock some of the "why" and "how" questions that have inevitably emerged, yielding a fuller picture of visitors' experiences and needs
 - For example, there is a great deal of room to dive deeper into questions such as what specifically causes locals to perceive the park as a tourist destination, and what might cause that perception to shift
- The visitor advisory group would meet with select staff on a regular basis to engage in brainstorming to help with decision-making (for example, about programming)
 - Directly participating in the meetings, staff members engage the visitors as genuine collaborators and partners, seeking their input on real decisions, however large or small

Recommendation #3: Assemble a visitor advisory group that gives locals an active ongoing voice *(continued)*

- Creating a second visitor advisory group specifically of parents could help the High Line further accommodate—and capitalize upon—the unique ways in which families visit the High Line
 - With the data showing that families with children have somewhat unique experiences of the High Line, both in preparing to visit and during the visit itself, there are opportunities to make families feel a sense of belonging at the High Line
 - And this may be a particularly important group to pay attention to, given that there are increasing numbers of visitors with children under 18 at home, and that this group continues to be underrepresented in relation to the New York City population
- Certain creative facilitation approaches and qualitative research methods could be adopted when developing organizing structures and agendas for such groups
 - For example, the research method behind “visitor panels” creates an effective way to gather opinions and ideas about early-stage concepts; bring to light hidden assumptions and perspectives, uncover dynamics between emotional and rational responses, and understand the interplay between individual thought and group dynamics around a topic
 - A visitor panel meets at multiple junctures during a development process and is moderated by an experienced researcher, allowing staff to hear the reactions and ideas of their intended audience in real-time, dialogic form at key decision points in a planning process
 - Areas that benefit from visitor panels include the development of art exhibitions, programming, interactive components (digital or physical), and other interpretive interventions (e.g., labels, tours, etc.)
 - Visitor panels serve a significant, though not boundless, role in a given development process
 - The role of visitor panels is not to determine a project’s goals, but rather to offer consultation on ways in which those goals can best be met for visitors; similarly, participants’ input prompts the team to think about the content or design approach in fresh, innovative ways, but does not necessarily provide final development decisions
 - We would be happy to further discuss ideas for visitor advisory groups and ways in which we could support you in creating something like this in-house

HIGH LINE Visitor Survey

OFFICE USE ONLY

Date: _____

Location: _____

Time: _____

Code: _____

Thank you for taking the time to complete this survey.
Your feedback will help us serve our community better!

1. Have you been to the High Line before? If so, how often do you visit? *(Please check ONE.)*

- ☐ No – this is my first visit
- ☐ Yes – I come here once a year or less
- ☐ Yes – I come here a few times per year
- ☐ Yes – I come here a few times per month
- ☐ Yes – I come here a few times per week

2. Did you come alone today, or with others?
(Please check ALL that apply.)

- ☐ Alone
- ☐ With my spouse/partner or significant other
- ☐ With child(ren) under 18
↳ How old are the child(ren) with you today?

- ☐ With a friend, neighbor, or other family member
- ☐ With a tour group
- ☐ Other *(Please specify):* _____

3. What is the main reason you came to the High Line today?
(Please check ONLY ONE.)

- ☐ I was brought by others — I wasn't the decision-maker
- ☐ I had heard about it and came to check it out
- ☐ I saw it while passing by and decided to check it out
- ☐ To spend time in a beautiful outdoor setting
- ☐ To do something new and unusual in the city
- ☐ To get from one block to another, above the bustle of the street
- ☐ To socialize, relax, or just hang out
- ☐ Other *(Please specify):* _____

4. Which of the following best describes the total length of your visit today (including time you plan to stay)?
(Please check ONE.)

- ☐ Less than 20 minutes ☐ 20 – 45 minutes
- ☐ Over 45 minutes

5. How familiar are you with each of these High Line activities? *(Please check one answer for EACH ROW.)*

	I've never heard of this activity	I've heard of it but haven't done it	I've done this activity
Family programs and activities			
Lectures and talks			
Film screenings			
Guided walking tours			
Art exhibitions or installations			
Volunteer programs			
Performing arts programs			

6. How familiar are you with High Line food? *(Please check ONLY ONE.)*

- ☐ I was unaware that there are food vendors on the High Line
- ☐ I am aware of the food vendors but I've never purchased food
- ☐ I have purchased food from the food vendors

7. Where did you get information about the High Line before visiting today? *(Check ALL that apply.)*

- ☐ Nowhere (I didn't know about the High Line before today)
- ☐ From a previous visit to the High Line
- ☐ From a friend, family member, or coworker
- ☐ Flyer, postcard, calendar, or other mailing from the High Line
- ☐ Email newsletter from the High Line
- ☐ City info desk or hotel concierge
- ☐ Guidebook
- ☐ Newspaper or magazine
- ☐ NYC Parks Department Web site
- ☐ The High Line's Web site (www.thehighline.org)
- ☐ The High Line's Facebook page or Twitter feed
- ☐ Another Web site, blog, or online source
- ☐ Other *(Please specify):* _____

8. Which of the following have you done (or do you plan to do) on the High Line today? *(Please check ALL that apply.)*

- ☐ People-watch
- ☐ Take a walk
- ☐ Go for a jog or run
- ☐ Have a meal or snack
↳ ☐ that I purchased on the High Line today
↳ ☐ that I brought
- ☐ Attend a scheduled event or program
- ☐ Spend time with friends
- ☐ Enjoy the flowers and other plants
- ☐ Meet new people
- ☐ Enjoy family-friendly activity with my children
- ☐ See a particular artwork or exhibit
- ☐ Take photos
- ☐ Rest / relax
- ☐ Show somebody else the High Line
- ☐ Learn about the High Line (its history, construction, etc.)
- ☐ Other *(Please specify):* _____

9. Was the High Line your main reason for coming to this part of Manhattan today?

- ☐ Yes ☐ No

10. What three words or phrases (positive or negative) would you use to describe the High Line to a friend?

1) _____

2) _____

3) _____

11. If friends asked you what to do while visiting New York, would you recommend a visit to the High Line? (Please check ONE.)

- ☐ No – I probably wouldn't recommend a visit here
- ☐ Yes, but only if they'd already seen other "must-see" destinations
- ☐ Yes, under any circumstances – the High Line is a "must-see" destination

12. In your opinion, how well do the following words or phrases describe the High Line? (Please circle one rating for EACH ROW.)

	No! Doesn't describe				Yes! Describes perfectly
Clean	1	2	3	4	5
Crowded	1	2	3	4	5
Easy to use and navigate	1	2	3	4	5
Community space	1	2	3	4	5
Welcoming	1	2	3	4	5
Safe	1	2	3	4	5
Tourist attraction	1	2	3	4	5

13. What one thing could the High Line do to improve the experience for you?

14. How familiar are you with the nonprofit organization Friends of the High Line? (Please check ONE.)

- ☐ Never heard of it before ☐ Somewhat familiar
- ☐ Not very familiar ☐ Very familiar

15. Which High Line membership category best describes you? (Please check ONE.)

- ☐ I'm not a member and am not interested in joining
- ☐ I'm not a member, but would consider joining
- ☐ I'm currently a member
- ☐ I used to be a member, but am not now

16. Which of the following describes you? (Please check ALL that apply.)

- ☐ I live in the High Line neighborhood
- ☐ I work in the High Line neighborhood
- ☐ I own property or a business in the neighborhood
- ☐ I'm staying in a hotel in the neighborhood
- ☐ I'm visiting a museum or other cultural destination in the neighborhood
- ☐ I'm shopping, dining, or going to a bar in the neighborhood
- ☐ None of these

You're almost finished! We just need to ask a few questions about you, to see how well we're serving all kinds of people. Your answers will be anonymous and for statistical purposes only.

17. What is your home ZIP code? _____

Or, if you live outside the US, what country? _____

18. Are you: ☐ Male ☐ Female

19. In what year were you born? _____

20. Which ethnic category best describes you?

- ☐ African-American/Black ☐ Asian/Pacific Islander
- ☐ Caucasian/White ☐ Native American
- ☐ Latino/Hispanic
- ☐ Other (Please specify): _____

21. Please check the highest level of education that you've completed:

- ☐ High school/GED or less ☐ Some college
- ☐ College degree ☐ Some graduate work
- ☐ Graduate/post-graduate degree

22. Do you have children living at home?

- ☐ Yes ☐ No

↳ If so, in which age ranges are your children? (Please check ALL that apply.)

- ☐ 0–3 years old ☐ 13–17 years old
- ☐ 4–7 years old ☐ 18 years old or over and living at home
- ☐ 8–12 years old

23. Please tell us which category includes your annual household income. (For statistical purposes only, and will be kept anonymous.)

- ☐ Under \$25,000 ☐ \$75,000–\$100,000
- ☐ \$25,000–\$50,000 ☐ \$100,000–\$150,000
- ☐ \$50,000–\$75,000 ☐ \$150,000 and above

Thank you for completing this survey! Friends of the High Line is the non-profit conservancy responsible for raising over 90% of the High Line's annual operating budget. If you're interested in receiving information about becoming a member of Friends of the High Line and helping to support the High Line's maintenance, horticulture, and public programs, please provide your contact information below.

E-mail address: _____

Name: _____

Address: _____

- ☐ Check this box if you'd like to receive the free High Line e-newsletter

City/State/ZIP: _____

HIGH LINE Visitor Survey

OFFICE USE ONLY

Date: _____

Location: _____

Time: _____

Code: _____

Thank you for answering a few quick questions!

We want to be sure that everyone who uses the High Line is included in our data. *We won't share your information with any other organization!*

1. What country do you live in?


2. If you live in the USA, what is your ZIP code?

____ _

3. Are you: ☐ Male ☐ Female

4. What is your age? _____

5. How was your High Line experience today?

Circle one number: 

Very bad!  Very good!

Bibliography

- "African Saying for the Month: September, 2010." Google African Proverbs, Sayings and Stories. Accessed December 10, 2014. <http://www.afriprov.org/index.php/african-proverb-of-the-month/46-2010apotm/545-sept2010apotm.html>.
- "Ames Building, Office Building." Google Ames Building. Accessed September 29, 2014. <http://www.shepleybulfinch.com/project/ames-building/LM9/>.
- "Apartment Building Gasometer: Coop Himmelb(l)Au, Jean Nouvel, Manfred Wehdorn, Wilhelm Holzbauer, Vienna, Austria." *GA Document* no. 69 (04, 2002): 68-79.
- "Chronology: A bit of History." Google Landschaftspark Duisburg-Nord. Accessed December 14, 2014, <http://en.landschaftspark.de/the-park/evolution/chronology>.
- "Coop Himmelb(l)Au: Rehabilitation of Gasometer Project, Vienna, Austria 1995-2000." *A & U: Architecture & Urbanism* no. 8 (08, 1999): 66-73.
- "Coop Himmelblau: Apartment Building Gasometer - GPA Gasometer B, Vienna, Austria." *GA Document* no. 58 (04, 1999): 12-15.
- "Diller Scofidio + Renfro with James Corner Field Operations and Piet Oudolf: High Line - New York, New York, U.S.A. - Design: 2004- Construction: -2011." *GA Document* no. 120 (01, 2012): 102-113.
- "Flour Milling History." Google Mill City Museum. Accessed November 5, 2014. <http://www.millcitymuseum.org/flour-milling-history>.
- "French Revolution," History, accessed February 1, 2015, <http://www.history.com/topics/french-revolution>.
- "Historic Preservation Mission," Graduate School of Architecture, Planning and Preservation, Columbia University in the City of New York, accessed January 27, 2015, <http://www.arch.columbia.edu/programs/historic-preservation/mission>.
- "History of the Gasometers." Google Wiener Gasometer. Accessed October 9, 2014. <http://www.wiener-gasometer.at/en/history>.
- "Improbable Journey: The Story of New York's High Line." Google Mother Nature Network. Accessed November 19, 2014. <http://www.mnn.com/lifestyle/responsible-living/sponsorvideo/improbable-journey-the-story-of-new-yorks-high-line>.
- "James Corner Field Operations with Diller Scofidio + Renfro: The High Line, New York, 2004-09." *Lotus International* no. 139 (09, 2009): 8-15.
- "Landschaftspark Duisburg, Nord-Duisburg, Germany." In *EDRA/Places Award Design*,

- (2005): 6-9. Accessed December 14, 2014.
http://places.designobserver.com/media/pdf/Landschaftspar_405.pdf.
- “Managing Stonehenge: Conservation and Research.” Google English Heritage. Accessed September 17, 2014. <http://www.english-heritage.org.uk/content/imported-docs/education/conservation-research.pdf>.
- “Mayor Bloomberg Announces City Acquires High Line From CSX Transportation: Trail Use Agreement Signed Permitting Recreational Uses on the Elevated Rail Structure; Transformation into Public Open Space to Begin in 2006.” *Friends of High Line*, November 16, 2005. Accessed December 3, 2014.
http://assets.thehighline.org/original_site/newsletters/111605_pr.html.
- “Mill City Museum.” Google Meyer, Scherer, and Rockcastle. Accessed November 12, 2014. <http://msrdesign.com/project/mill-city-museum/>.
- “Minneapolis Riverfront.” Google Mill City Museum. Accessed November 5, 2014.
<http://www.millcitymuseum.org/minneapolis-riverfront>.
- “National Register of Historic Places Program: About Us,” Google National Park Service, accessed April 22, 2015,
http://www.press.uchicago.edu/books/turabian/turabian_citationguide.html.
- “National Register of Historic Places Program: Fundamentals,” Google National Park Service, accessed April 17, 2015,
http://www.nps.gov/nr/national_register_fundamentals.htm.
- “National Trust Historic Sites.” Google National Trust for Historic Preservation. Accessed September 17, 2014. <http://www.preservationnation.org/travel-and-sites/sites/#.VBo1LVbh410>.
- “Overview about the High Line: History: A Revitalized Piece of New York City’s Past.” Google Friends of the High Line. Accessed December 3, 2014.
<http://www.thehighline.org/about>.
- “Overview and History.” Google Great River Road, Minnesota. Accessed November 10, 2014. <http://www.mnmississippiriver.com/great-river-road.cfm>.
- “Stonehenge, Avebury and Associated Sites.” Google United Nations Educational, Scientific and Cultural Organization. Accessed September 17, 2014.
<http://whc.unesco.org/en/list/373>.
- “The Architecture of the Gasometers.” Google Wiener Gasometer. Accessed October 9, 2014. <http://www.wiener-gasometer.at/en/history>.
- “The High Line (Phase I and II), Public Park: New York.” Google Diller Scofidio+Renfro. Accessed December 3, 2014. <http://www.dsny.com/#/projects/high-line-two>.

- “The Hotel – Awards.” Google The Liberty Hotel Boston. Accessed October 26, 2014.
http://www.libertyhotel.com/the_hotel/awards.html.
- “The Hotel – History.” Google The Liberty Hotel Boston. Accessed October 26, 2014.
http://www.libertyhotel.com/the_hotel/history.html.
- “The Liberty Hotel.” Google Ann Beha Architects. Accessed on October 27, 2014.
<http://www.annbeha.com/the-liberty-hotel>.
- “The Secretary of the Interior’s Standards.” Google Technical Preservation Services, National Park Service. Accessed September 17, 2014.
<http://www.nps.gov/tps/standards.htm>.
- Bann, Stephen. *Romanticism and the Rise of History*. New York; Toronto [etc.]: Twayne Maxwell Macmillan, 1995.
- Binakaj, Nol. “The Great Hammam in Pristina: Conservation, Restoration and Re-Functionalizing Project.” Paper presented at the annual meeting for the Conservation and Management of Historic Buildings, 2008.
- Benjamin, Walter. *Illuminations: Essays and Reflections*. Edited by Hannah Arendt. New York: Random House, 1988.
- Blake, Peter. *Form Follows Fiasco: Why Modern Architecture Hasn't Worked*. 1st ed. Boston: Little, Brown, 1977.
- Bollack, Françoise Astorg. *Old Buildings, New Forms: New Directions in Architectural Transformations*. United States: The Monacelli Press, 2013.
- Bond, Christina. *Adaptive Reuse: Explaining Collaborations within a Complex Process*. *Adaptive Reuse: Explaining Collaborations Within a Complex Process*. Department of Planning, Public Policy & Management, University of Oregon, 2011.
- Borasi, Giovanna. “David Gissen: The Mound of Vendôme, A Petition, Paris.” *Abitare* (September 2012): 86-89.
- Brand, Stewart. *How Buildings Learn: What Happens After they'Re Built*. New York, NY: Viking, 1994.
- Chronopoulos, Themis. “Robert Moses and the Visual Dimension of Physical Disorder: Efforts to Demonstrate Urban Blight in the Age of Slum Clearance.” *Journal of Planning History*, vol. 13 (2014): 207-233.
- Cicero, Marcus Tullius. *M. Tulli Ciceronis Ad M. Brutum Orator: A Revised Text*. Edited by John Edwin Sandys. New York: Arno Press, 1979.

- Cramer, Johannes and Stefan Breitling. *Architecture in Existing Fabric :Planning, Design, Building* [Architektur im Bestand.English]. Basel Switzerland; Boston: Birkhäuser, 2007.
- Cullingworth, Barry. "Historic Preservation in the USA." *Built Environment*, vol. 23, no. 2, Conservation in Western Planning Systems (1997): 137-143.
- David, Joshua and Robert Hammond. *High Line :The Inside Story of New York City's Park in the Sky*. 1st ed. New York: Farrar, Straus and Giroux, 2011.
- David Rockwell on designing The Ames Hotel in Boston*. Directed by Chuck and Michelle Clifton and Mike and Sonja Cilligan. 1970. New York: Hudson River Film and Video. Video Clip.
- Davies, Colin. *Thinking about Architecture: an Introduction to Architectural Theory*. London: Laurence King, 2011.
- Domer, Dennis. "Old but not Good Old History: Prospects and Problems of Freezing Time in Old Building." *Journal of Architectural and Planning Research* 26, no. 2 (Summer 2009): 95-110.
- Frank Llyod Wright Home and Studio Foundation. *The Plan for Restoration and Adaptive Reuse of the Frank Llyod Wright Home and Studio*. Chicago: University of Chicago Press, 1978.
- Funkenstein, Amos. "Collective Memory and Historical Consciousness." *History and Memory* 1, no. 1 (April 1, 1989): 5-26.
- Gadamer, Hans-Georg, Donald G. Marshall, and Joel Weinsheimer. *Truth and Method*. London: Continuum, 2004.
- Gibson, Michael. "Preserving France's heritage from before the (Industrial) Revolution." *IHT*, 5-6 July, 1980, 8.
- Giedion, Sigfried. *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge Mass: Harvard University Press, 2008.
- Gillette, Jane. "On the High Line: Exploring America's most Original Urban Park, by Annik Lafarge." *Landscape Architecture Magazine* 103, no. 1 (01, 2013): 114.
- Gissen, David. "Rebuild the Mound of Vendôme." In *Project: The Mound of Vendôme*. Last modified February 18, 2012. Accessed September 17, 2014.
<http://davidgissen.org/Project-The-Mound-of-Vendome>.
- Groth, Helen. "Reading Victorian Illusions: Dickens's Haunted Man and Dr. Pepper's

"Ghost." *Victorian Studies* 50, no. 1 (Victorian Studies, Sep 01, 2007; Vol. 50, No. 1, p. 43-65; 2007-09-01, : 43-65.

Guixer, Mònica Oliveres I. "Landschaftspark Duisburg-Nord, Duisburg (Germany), 2000: Restructuring of a former industrial zone in the Rhur basin, new park in the north of Duisburg." Google Public Space. Accessed December 14, 2014, <http://www.publicspace.org/en/works/a008-landschaftspark-duisburg-nord>.

Hardy, Hugh. "The Romance of Abandonment: Industrial Parks." *Places* 17, no. 3 (Fall, 2005): 32-37.

Harries, Karsten. *The Ethical Function of Architecture*. Cambridge, Mass.: MIT Press, 1997.

Harrington, Elaine, Frank Lloyd Wright, Frank Lloyd Wright Home and Studio Foundation, and Hedrich-Blessing. *Frank Lloyd Wright Home and Studio, Oak Park*. Opus. Vol. 23. Stuttgart: Edition Axel Menges, 1996.

Hays, K. Michael. *Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984*. New York: Princeton Architectural Press, 1998.

Hegel, Georg Wilhelm Friedrich, John. Sibree, and Inc. ebrary. *The Philosophy of History*. New York: Co-operative Publication Society, 1900.

Herzog, Jacques. "Message from below." *Architect's Journal* 236, no. 2 (2012): 54-55.

Huber, Molly. "De la Barre, William (1849-1936)." Google MNopedia, Minnesota Historical Society. Last modified November 15, 2013. Accessed November 12, 2014. <http://www.mnopedia.org/person/de-la-barre-william-1849-1936>.

Jäger, Frank Peter and Inc ebrary. *Old & New Design Manual for Revitalizing Existing Buildings*. Basel: Birkhauser, 2010.

Klanten, Robert and Lukas Feireiss. *Build-on :Converted Architecture and Transformed Buildings*. Berlin: Gestalten, 2009.

Kuebler, Carolyn. Review of *Walking the High Line*. Edited by Joel Sternfeld, Adam Gopnik, and John R. Stilgoe. *Library Journal* 127, no. 16 (October 2002): 92.

LaBelle, Judith M. "Emscher Park, Germany – expanding the definition of a 'park.'" In *Crossing Boundaries in Park Management: Proceedings of the 11th Conference on Research and Resource Management in Parks and on Public Lands*. Edited by David Harmon. Hancock, MI: George Wright Society, 2001.

Latz, Peter. "Landschaftspark Duisburg Nord = Parc Rural Duisbourg-Nord = Duisburg North Landscape Park." *Anthos* 31, no. 3 (1992): 27-32.

Latz + Partners. "Landschaftspark Duisburg Nord – Duisburg, Germany." Paper presented at the EDRA/Places Awards Design, 2005.

Lee, Antoinette J. "From Historic Architecture to Cultural Heritage: A Journey through Diversity, Identity, and Community." *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 1, no. 2 (Fall 2004): 14-23.

Libeskind, Daniel and Hélène Binet. *Jewish Museum, Berlin*. Amsterdam: G+B Arts International, 1999.

Libeskind, Daniel and Kristin Feireiss. *Extension to The Berlin Museum with Jewish Museum Department*. Berlin: Ernst, 1992.

Lowenthal, David. *The Past is a Foreign Country*. New York: Cambridge University Press, 1985.

Lubow, Arthur. "The Anti-Olmsted." in *New York Times Magazine*, May 16, 2004. Accessed December 14, 2014.
<http://www.nytimes.com/2004/05/16/magazine/the-anti-olmsted.html>.

Lukacs, John. *Historical Consciousness; Or, The Remembered Past*. New York: Harper & Row, 1968.

Maddex, Diane and National Trust for Historic Preservation in the United States. *All about Old Buildings :The Whole Preservation Catalog*. Washington, D.C.: Preservation Press, 1985.

Mark, Robert, A. S. Çakmak, and Princeton University. *Hagia Sophia from the Age of Justinian to the Present*. Cambridge; New York, NY, USA: Cambridge University Press, 1992.

"Mayor Bloomberg Announces City Acquires High Line From CSX Transportation: Trail Use Agreement Signed Permitting Recreational Uses on the Elevated Rail Structure; Transformation into Public Open Space to Begin in 2006." *Friends of High Line*, November 16, 2005. Accessed December 3, 2014,
http://assets.thehighline.org/original_site/newsletters/111605_pr.html.

"Memory Gardens: Aesthetic Education and Political Emancipation in the Landschaftspark Duisburg-Nord." *German Studies Review* 33, no. 2 (2010): 243-261.

McMullen, Shannon. "The Liberty Hotel." *Hotel Management (21582122)* 226, no. 10 (Hotel Management (21582122), Aug 01, 2011; Vol. 226, No. 10; 2011-08-01, : 110-110.

Minutillo, Josephine. "Walk the Line: What was Once an Unused Rail Line is Now

Manhattan's most Stunning Promenade. the High Line Proves that Nature and the City Belong Together." *Azure* 27, no. 210 (09, 2011): 102-107.

Mires, Charlene. "In the Shadow of Independence Hall: Vernacular Activities and the Meanings of Historic Places." *The Public Historians*, vol. 21, no. 2 (Spring 1999): 49-64.

Murphy, Richard. *Carlo Scarpa and the Castelveccchio*. London; Boston: Butterworth Architecture, 1990.

Nebraska State Historical Society, *Building on the Historic Cultural Foundations of Nebraska: The State Historic Preservation Plan for Nebraska, 2012-2016*.

Nietzsche, Friedrich. *On the Advantages and Disadvantages of History for Life*. Translated by Peter Preuss. Indianapolis: Hackett Pub. Co, 1980.

Otero-Pailos, Jorge. "Now is the 'Future Anterior' for Advancing Historic Preservation Scholarship." *Future Anterior: Journal of Historic Preservation History, Theory & Criticism* 1, no. 1 (Spring, 2004): 7-9.

Oxford University Press. "Oxford English Dictionary," 2000. <http://dictionary.oed.com/entrance.dtl>.

Pearson, Clifford A. "High Line New York, James Corner Field Operations and Diller Scofidio + Renfro: James Corner Field Operations and Diller Scofidio + Renfro Change Our Perspective on Parks with the High Line." *Architectural Record* (October 2009). Accessed December 3, 2014, <http://archrecord.construction.com/projects/portfolio/archives/0910highline-1.asp>.

Pelt, Robert Van and Carroll Westfall. *Architectural Principles in the Age of Historicism*. New Haven: Yale University Press, 1991.

Perez, Christine. "Boston's Historic Ames Building will Become Boutique Hotel." *National Real Estate Investor*. Last modified July 1, 2007. Accessed September 28, 2014.

Pevsner, Nikolaus. *A History of Building Types*. Princeton, N.J.: Princeton University Press, 1976.

Pham, Diane. "Gigantic Coal Gasometers Transformed into Thriving Communities in Vienna." Google Gasometers in Vienna. Last modified November 11, 2013. Accessed October 18, 2014. <http://inhabitat.com/gigantic-coal-gasometers-transformed-into-thriving-communities/2/>.

- Powell, Kenneth. *Architecture Reborn : Converting Old Buildings for New Uses*. New York: Rizzoli, 1999.
- “Preservation, Contemporary Art, and Architecture.” *Futuante Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 4, no. 2 (2007): 70–85.
- Price, Nicholas Stanley, Mansfield Kirby Talley, and Alessandra Melucco Vaccaro. *Historical and Philosophical Issues in the Conservation of Cultural Heritage. Readings in Conservation*. Los Angeles: Getty Conservation Institute, 1996.
- . *Historical and Philosophical Issues in the Conservation of Cultural Heritage. Readings in Conservation*. Los Angeles: Getty Conservation Institute, 1996.
- Reed, Peter,. *Groundswell: Constructing the Contemporary Landscape : [Exhibition, New York, the Museum of Modern Art, February 25, 2005]*. New York: The Museum of Modern Art, 2005.
- Richards, Kristen. “History as.” *Oculus/The New York Chapter of the American Institute of Architects*, vol. 65, issue 1 (2003): 23.
- Robert, Philippe and Philippe Robert. *Adaptations :New Uses for Old Buildings. Thematic Architecture. [Reconversions.English]*. New York, NY: Princeton Architectural Press, 1991; 1989.
- Rodriguez, Alicita. “Mirror Chandelier by Studio Roso Lights up the Lobby at Boston’s Ames Hotel.” *3rings Designer Pages Media*, March 9, 2010. Accessed October 7, 2014. <http://media.designerpages.com/3rings/2010/03/09/mirror-chandelier-by-studio-roso-lights-up-the-lobby-at-bostons-ames-hotel/>.
- Ross, Dorothy. “Historical Consciousness in Nineteenth-Century America.” *American Historical Review* 89, no. 4 (October 1984): 909-928.
- Ruby, Andreas, Francesca von Habsburg, Albert Heta, Jorge Otero-Pailos, Dinko Peraćic, François Roche, and Mark Wigley. "Preservation, Contemporary Art, and Architecture." *Future Anterior: Journal of Historic Preservation History, Theory, & Criticism* 4, no. 2 (Winter, 2007): 70-85.
- Ruskin, John. *The Seven Lamps of Architecture*. New York: J. Wiley, 1849.
- Russell, James S. "Coop Himmelb(l)au Challenges Preservation Orthodoxy in the Gasometer B Project by Making Stolid Former Fuel Tanks Dance." *Architectural Record* 189, no. 11 (11, 2001): 108-115].
- Schieder, Theodor. “The Role of Historical Consciousness in Political Action.” *Historytheory History and Theory* 17, no. 4 (1978): 1–18.

- Schiller, Friedrich, Johann Wolfgang von Goethe, and L. Dora. Schmitz. *Correspondence between Schiller and Goethe : From 1794 to 1805*. London: G. Bell, 1877.
- Shipley, Robert. Steve Utz, and Michael Parson. "Does Adaptive Reuse Pay? A Study of the Business of Building Renovation in Ontario Canada." In *International Journal of Heritage Studies*, vol. 12, no. 6 (November 2006): 505-520.
- Sternfeld, Joel., Gopnik, Adam., Stilgoe, John R., Pace/MacGill., *Walking the High Line*. Göttingen; [New York]: Steidl ; Pace/MacGill Gallery, 2001.
- Stipe, Robert E. *A Richer Heritage: Historic Preservation in the Twenty-First Century*. Chapel Hill: University of North Carolina Press, 2003.
- Szegedy-Maszak, Andrew. "Travel: A Perfect Ruin." *Archaeology*, vol. 43, no. 1 (January/February 1990): 74-79.
- Thomson, Robert Garland. "Taking Steps Toward a New Dialogue: An Argument for an Enhanced Critical Discourse in Historic Preservation." *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* vol. 1, no. 1 (Spring 2004): 11-15.
- Tyler, Norman, Ted Ligibel, and Ilene R. Tyler. *Historic Preservation :An Introduction to its History, Principles, and Practice*. 2nd ed. New York: W.W. Norton & Co., 2009.
- . *Historic Preservation :An Introduction to its History, Principles, and Practice*. 2nd ed. New York: W.W. Norton & Co., 2009.
- Turse, Nick. "Getting the Vietnam War Wrong." *Nation* vol. 300, issue 8 (February, 2015): 22-24.
- United States Conference of Mayors., Special Committee on Historic Preservation., National Trust for Historic Preservation in the United States., and United States. *With Heritage so Rich*. Washington, D.C.: Preservation Press, 1983.
- United States. *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings*. Washington, D.C.: U.S. Dept. of the Interior, National Park Service, Preservation Assistance Division, 1992.
- United States. Heritage Conservation and Recreation Service. *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. Rev ed. Washington: The Service, 1980.
- Urban, Andrew. "Mill City Museum." In *Journal of American History*, vol. 92, issue 3 (December 2005): 938-941.

Viollet-le-Duc, Eugène-Emmanuel,,. *The Foundations of Architecture : Selections from the Dictionnaire Raisonné*. New York: G. Braziller, 1990.

Webber, Gwen. "The High Line." *Blueprint (London, England)* no. 304 (07, 2011): 48.