Towards a Critical Contemporary Design in Historic Settings: Reclaiming the Inherent Relationship between the Old and the New, Reclaiming Continuity in Differentiation

Shuxin Wu
University of Pennsylvania

Follow this and additional works at: https://repository.upenn.edu/hp_theses

Part of the Historic Preservation and Conservation Commons

https://repository.upenn.edu/hp_theses/651

Suggested Citation:

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/hp_theses/651
For more information, please contact repository@pobox.upenn.edu.
Towards a Critical Contemporary Design in Historic Settings: Reclaiming the Inherent Relationship between the Old and the New, Reclaiming Continuity in Differentiation

Abstract
Contemporary design in historic settings is a public concern as it fundamentally impacts the protection of historic resources, which specifically refers to new constructions in historical and existing context. At the core of design in historic settings lies the issues of studying, interpreting, and expressing the relationship between the old and the new. This thesis intends to address some of the limitations in how architectural designers approach these issues in historic settings and propose alternative design strategies. The strategies include analysis and methodology to integrate preservation philosophies with architectural design. They aim to produce new designs in historic settings which could go beyond the dichotomy between "strict preservation" and "strict differentiation" and to find a balance between “copies” and “experiments”. The thesis intends to reclaim a common ground between preservation and design. It reclaims an inherent relationship between the old and the new by proposing three alternative strategies to position design in historic preservation as both a creative and conservative act.

Keywords
Contemporary design in historic settings, Relationship between the old and the new, Architectural representation of history, Continuity in differentiation, Preservation and design

Disciplines
Historic Preservation and Conservation

Comments
Suggested Citation:
TOWARDS A CRITICAL CONTEMPORARY DESIGN IN HISTORIC SETTINGS:
RECLAIMING THE INHERENT RELATIONSHIP BETWEEN THE OLD AND THE
NEW, RECLAIMING CONTINUITY IN DIFFERENTIATION

Shuxin Wu

A THESIS
in
Historic Preservation

Presented to the Faculties of the University of Pennsylvania in
Partial Fulfillment of the Requirements of the Degree

MASTER OF SCIENCE IN HISTORIC PRESERVATION
2018

_______________________
Advisor
Pamela W. Hawkes
Professor of Practice

_______________________
Program Chair
Frank G. Matero
Professor
Acknowledgements

The project would not have been possible without the support of many people. Many thanks to my advisor, Pamela Hawkes, who has always been supportive and patient, helped make sense of the confusion and read my numerous revisions. Also, thanks to Francesca Ammon, who has been the instructor of the thesis workshop and provided guidance and support. Thanks to my numerous friends and my parents who endured this long process with me, always there with support and love. Thanks to Haobing Shen, for all his love and support.
Table of Contents

List of Figures and Illustrations...........................................................................................................v

1. A New Position on Contemporary Design in Historic Settings...........................................1
   1.1 Significance, History, and Challenges of Design in Historic Settings.................4
   1.2 The Dichotomy between Strict Preservation and Strict Differentiation.........15
   1.3 Reclaiming the Inherent Relationship Between the Old and the New..........20
   1.4 A Note on Terminology.........................................................................................23
   1.5 Methodology...........................................................................................................27

2. The Three Strategies.................................................................................................................29
   2.1 Architectural Representation of History...............................................................29
      2.1.1 “Visualizing History” / Castelvecchio, Verona, Italy.............................30
      2.1.2 Technical Representation of History / Koldinghus, Denmark..............41
      2.1.3 Exhibiting History / Square Pagoda Park, Shanghai, China..............51
   2.2 Internalization of Content.........................................................................................68
      2.2.1 Interpretation Instead of Replication / Barnes Foundation, Philadelphia, PA, U.S. .................................................................69
   2.3 A Hybridized Future.................................................................................................83
      2.3.1 Making New as to “Re-new” / Square Pagoda Park, Shanghai, China.................................................................85
3. The Critical Path of Contemporary Design in Historic Settings..................107

3.1 Realigning Contemporary Design with Preservation...............................107

3.2 Redefining “Newness” ............................................................................108

Bibliography...................................................................................................110

Index............................................................................................................112
List of Figures and Illustrations

1. A New Position on Contemporary Design in Historic Settings
   **Figure 1.0.1** Eastern State Penitentiary in Philadelphia, PA, U.S.
   **Figure 1.0.2** Harvard Art Museums Renovation and Expansion in Cambridge, Boston, MA, U.S.
   **Figure 1.1.1** Saint Peter’s Church and the plaza in the Vatican City.
   **Figure 1.1.2** Historical layers of Saint Peter’s Church.
   **Figure 1.1.3** Marcel Breuer’s proposal of the addition for the Grand Central Terminal in the New York city.
   **Figure 1.1.4** Elbphilharmonie Concert Hall in Hamburg.
   **Figure 1.1.5** Hearst Tower in New York.
   **Figure 1.1.6** Zaha Hadid’s port house in Antwerp, Belgium.
   **Figure 1.1.7** Barnes Foundation at the Benjamin Franklin Parkway in Philadelphia, PA, U.S.
   **Figure 1.2.1** Hutong Bubble 32 project in Beijing, China.

2. The Three Strategies
   **Figure 2.1.1.1** Corner window at Gipsoteca Canoviana, Possagno.
   **Figure 2.1.1.2** Plan of the Castelvecchio Museum in Verona, Italy.
   **Figure 2.1.1.3** North inner wall elevation.
   **Figure 2.1.1.4** Scarpa’s sketch of window study.
   **Figure 2.1.1.5** Photograph of statues of saints in the second exhibition room at Castelvecchio.
   **Figure 2.1.2.1** Exterior photograph of Koldinghus Castle.
   **Figure 2.1.2.2** Exposed perspective section of the south wall at Koldinghus Castle.
   **Figure 2.1.2.3** Photograph of the new shingle siding in contrast with the old bricks.
   **Figure 2.1.2.4** Drawings of the development of a movable base for the new tree-like column.
   **Figure 2.1.2.5** Photograph of the movable base of the column in the main hall.
   **Figure 2.1.2.6** Cross section drawing of the south wing of the castle.
   **Figure 2.1.2.7** Photograph of the “air joint”.
   **Figure 2.1.3.1** Historical map of the Songjiang County from Qing Dynasty.
   **Figure 2.1.3.2** Historic photograph of the Square Pagoda and the screen wall.
   **Figure 2.1.3.3** Historic photograph of the pagoda.
   **Figure 2.1.3.4** Plan of the Plaza.
   **Figure 2.1.3.5** Photograph of the Song Square Pagoda.
   **Figure 2.1.3.6** Photograph of the Ming screen wall.
   **Figure 2.1.3.7** Photograph of the Qing Temple of the Queen of Heaven.
   **Figure 2.1.3.8** Photograph of the back of the screen wall.
   **Figure 2.1.3.9** Master plan of the Square Pagoda park.
   **Figure 2.1.3.10** Photograph of the ground pavements at the Pagoda courtyard.
Figure 2.1.3.11 Photograph of view toward the Temple of the Queen of Heaven from the stone-cut road.

Figure 2.2.1.1 Photograph of the north facade of the Cret Gallery in Merion.

Figure 2.2.1.2 Diagrams for a “gallery in a garden” and a “garden in a gallery”.

Figure 2.2.1.3 Plan analysis by the architects.

Figure 2.2.1.4 Photographs of conceptual models.

Figure 2.2.1.5 Photographs of the mock-up workshop.

Figure 2.2.1.6 Photograph of main room in the collection room.

Figure 2.2.1.7 Photograph of the Kente Cloth texture.

Figure 2.2.1.8 Photograph of the stone-panel façade of the new building.

Figure 2.2.1.9 Photograph of the “new” molding module.

Figure 2.3.1.1 Elevation of the north entrance gate at the Square Pagoda Park.

Figure 2.3.1.2 Photograph of the entrance gate to Jichang Garden, in Wuxi, Jiangsu Province, China.

Figure 2.3.1.3 Construction drawings of the north entrance gate.

Figure 2.3.1.4 Section of the Foguang Temple in Wutai, Shanxi Province, China.

Figure 2.3.1.5 Front elevation of the Foguang Temple in Wutai, Shanxi Province, China.

Figure 2.3.1.6 Photograph shows the steel structures supporting the roof at the north entrance gate.

Figure 2.3.1.7 Photograph of the east entrance gate.

Figure 2.3.1.8 Photograph shows the details of the steel structure supporting the gate roof at the east entrance.

Figure 2.3.1.9 Photograph of the “festoon gate”.

Figure 2.3.1.10 Drawing of a traditional Chinese courtyard in Beijing, China.

Figure 2.3.1.11 Photograph of the entrance to the bamboo pavilion with curved brick walls.

Figure 2.3.1.12 Photograph of a typical vernacular farm house.

Figure 2.3.1.13 Side and front elevations of the bamboo pavilion.

Figure 2.3.1.14 Sections of the bamboo pavilion.

Figure 2.3.1.15 Photograph of the interior of the pavilion looking toward the water.

Figure 2.3.1.16 Sketch for the bamboo pavilion.

Figure 2.3.2.1 Photograph of the stone-cut road.

Figure 2.3.2.2 Photograph of the surface detail of the stone.

Figure 2.3.2.3 Photograph of artificial rocks in a traditional Chinese garden, Jichang Garden, in Wuxi, Jiangsu, China.
1. A New Position on Contemporary Design in Historic Settings

The air is heavy with the desire for authentic experiences.
Roemer van Toorn, in “Dirty Regionalism: The Perfect Imperfection of Onix Architects”

All continuity of history means is after all perpetual change, and it is not hard to see that we have changed with a vengeance, and thereby establish our claim to be the continuers of history.

William Morris

No new architecture can arise without modifying what already exists. Each situation offers a specific truth, to be sought and revealed as the essence of the goal, and as the truth of both the site and the geography that embodies the site’s particular history.

Vittorio Gregotti, in Inside Architecture
The historic structures at Eastern State Penitentiary, Philadelphia, Pennsylvania, U.S. are fully preserved, which is a typical example of “strict preservation”.

Figure 1.0.1
Source: Photographs in the Carol M. Highsmith Archive, Library of Congress, Prints and Photographs Division.
The new section (right) and the old building (left) are clearly differentiated in form, in materials, and in construction methods.
1.1 Significance, History, and Challenges of Design in Historic Settings

Is contemporary design in historic settings a preservation issue or an architectural design issue? One might take it for granted that contemporary design in historic settings stands at the intersection between the architectural profession and historic preservation. However, it turns out that they are rather different from each other regarding their focuses and priorities. Based on my experiences and observations throughout my training in architecture school as a preservationist and an architect, there is still lack of common ground between the two disciplines.

Contemporary design in historic settings has become increasingly important as a public concern and a heated topic for many cities across the world. The combined actions of preservation and creation impact both new urban development and preserving valuable historical resources and unique characteristics belonging to different places. In addition, contemporary design in historic settings often provides great opportunities to engage citizens and various communities on issues of collective memory, historical interpretation, identity representation and urban design. New construction in historic areas directly reveals and influences the attitude we have toward the past, the present, and the future. Architect Charles Bloszies claimed, “alterations and additions to existing buildings are commonplace, yet very little media attention is devoted to this topic – perhaps because new work is oftentimes designed to blend in with the old in order to avoid controversy.”¹ Bloszies is a practicing architect in San Francisco. In his book, *Old Buildings, New Designs, Architectural Transformations*, published in 2012, Bloszies

---

addressed the urgent need that we need to seek and establish some guiding principles that would lead to successful designs in this common field of architectural practices.

Yet, contemporary design in historic settings has a long history since the Renaissance. Looking back on the history of architectural development, much of the great architecture of the past was developed on existing structures. For instance, from the 16th century to the 17th century, four generations of architects and builders worked on the construction of Saint Peter’s Church in the Vatican City – from Donato Bramante to Michelangelo Buonarotti to Carlo Maderno, and lastly to Gian Lorenzo Bernini. Those architects integrated their own designs with results that are honest to their own times yet changed and enhanced the existing configuration at the same time (Figure 1.1.1 and Figure 1.1.2).

Despite the long history of building upon previous physical layers, today the practice of designing new architecture in historic settings still faces many challenges due to inevitable changes in values, technology, and physical materials over time. The Industrial Revolution as well as the development of digital processing and fabrications have fundamentally changed the culture of design and construction.

Changes are inevitable no matter whether it is in the field of preservation, or it is completely about new construction. How we should treat the differences between the past and the present is essential to how we could respond to the famous statement by David Lowenthal that the past has become foreign to us. In David Lowenthal’s famous book The Past is a Foreign Country, he points out that any interventions to the present will impact the perceptions of the past and the future. One important message here is that the past is not fixed. The past is also changed by how we evaluate it today. It also applies
Figure 1.1.1 (top)
Saint Peter’s Church and the plaza in the Vatican City (1506-1626).
Source: Author, 2012.

Figure 1.1.2 (bottom)
Historical layers as shown in plan shows the successive constructions.
Darkest color suggests the oldest section of Saint Peter’s Church.
to historic buildings that they should also be treated as living entities. Hence, the idea that the past also changes and is not fixed suggests that preservation should not be thought of as only a negative force; indeed, it is no less creative than new construction. The very act of preservation changes the course of moving forward, as Lowenthal asserted, “every conserved monument becomes a testament not only to its initiators but to its inheritors, not only to the spirit of the past but to the perspectives of the present.”

Lowenthal also implied that the belief a historic site can reveal unambiguously what the past was “really like” is mistaken. Professor Steven W. Semes, who is an architect and serves the Director of the Graduate Studies for Historic Preservation Program at University of Notre Dame, commented, “it rests on a fundamental philosophical misunderstanding that has distorted and exaggerated our perception of the differences between the past and the present, leading to a misguided and ultimately disappointing search for material authenticity and verisimilitude while overlooking the important lessons and artistic enrichment that the vestiges of the past still available to us legitimately offer”.

The rising attention given to new designs in historic settings is also generated by the shifts in architecture/building culture, the preservation movement, the rising of human-centered public design, and the immerging concept of sustainability. Francoise Astorg Bollack, who is an architect, educator, preservationist, and writer on architecture and preservation, noted important cultural shifts in the middle of 20th century. In her book *Old Buildings New Forms, New Directions in Architectural Transformations* (2013),

---

Bollack talked about how three books – Jane Jacob’s *The Death and Life of Great American Cities* (1961), Rachel Carson’s *Silent Spring* (1962), and Robert Venturi’s *Complexity and Contradiction in Architecture* (1966) – together with the disappearance of manufacturing from urban areas, emergence of Pop Art, and the solidification of the artists’ role as a social critic – paved our path to other alternative perspectives which questions well-accepted orthodoxies in the fields of urban planning, environmental sciences, and architecture. Bollack wrote that “what in the air was a reconsideration of our relationship to nature, our relationship to commercial ‘stuff’, to the city and the junk around us, and, most important, our relationship to the past.”

In the field of architecture, there has been rising resistance to producing designs that are indifferent to environmental, cultural, social, and economic context. For instance, Bollack pointed out that Robert Venturi stressed “the validity of architectural complexity, historical precedents, and artifice” because it added richness to design but is somehow dismissed by modern architecture which emphasizes progress and efficiency. Venturi embraced architecture that could address “the difficult unity of inclusion rather than the easy unity of exclusion”. Venturi’s statement is consistent with the simultaneous growing stress on design that is specific to places, which is most related to the idea of regionalism and critical regionalism: the rising demand of claiming the identity of a particular place versus the universal and homogeneous realization of modern

---

In United States, the preservation movement, which was heightened in the 1960s and 1970s with populist protests as a coordinated national movement, raised the issue of new design in historic settings to the center of public attention. One of the most famous cases was Marcel Breuer’s controversial proposal to put an office tower on top the Grand Central Terminal, a landmark building in New York in 1978 (Figure 1.1.3). The Supreme Court rejected Breuer’s proposal and the court claimed that the relationship between the design and the context was not aesthetically appropriate. Professor Semes wrote about this case in his book, *The Future of the Past: A Conservation Ethic for Architecture, Urbanism, and Historic Preservation* (2009). He explained, “proposals for new buildings that visibly depart from the character of their historic surroundings often arouse intense feelings, which challenges the sense of collective and personal identity and reveals conflicting ideas and values that extend well beyond questions of architectural form”.8

Contemporary design in historic settings has been a very broad and prevalent category of practice that almost every architectural project, either design-oriented or preservation-oriented, at various levels, would engage a preexisting condition. The responses range from more prominent projects where the contrast of old and new is straightforward and apparent, such as Norman Foster’s Hearst Tower in New York city (Figure 1.1.5) and Renzo Piano’s renovation to Harvard Art Museum (Figure 1.0.2), to “less apparent” projects like the new Barnes Foundation by Tod Williams Billie Tsien

---

Figure 1.1.3

Marcel Breuer’s controversial proposal put an international style office block on top of the Grand Central Terminal. The proposal was rejected by the Supreme Court and was seen as an unsettled public expression. Paul Spencer Byard, the architect and lawyer, commented that the issue here more had to with the expression when read with the expression of its older neighbor: the Penn central example stands for the proposition that an addition that says the wrong thing to a protected neighbor could be forbidden.9

However, it remained a strong influence on many later projects, e.g. Elbphilharmonie Concert hall in Hamburg, Germany designed by the Swiss architectural firm Herzog and de Meuron (Figure 1.1.4), Norman Forster’s Hearst Tower in New York city (Figure 1.1.5), and Port House in Antwerp (Figure 1.1.6), Belgium by Zaha Hadid architects.

---

Figure 1.1.4
Elbphilharmonie Concert hall in Hamburg, Germany designed by the Swiss architectural firm Herzog and de Meuron opened in 2017.
Source: Maxim Schulz, Archdaily.

The new glassy construction is sitting on top of an old warehouse building built in 1963, near the historical warehouse district in Hamburg.

The old building at the bottom was designed by the architect, Joseph Urban, and was built in 1928. It was built originally as the base for a proposed skyscraper, while the construction of the tower was postponed due to the Great Depression. The original cast stone facade has been preserved in the new design as a designated Landmark site.
Figure 1.1.6

Zaha Hadid’s Port House in Antwerp, Belgium finished in 2016.
Source: Helene Binet, Archdaily.

The old building used to a fire station and was poorly used and managed before the new intervention. The new port house repurposed, renovated, and extended the original building into a new headquarter for the port.
Figure 1.1.7
Architects, when the connection between the old gallery and the new one has been more interpreted and subtly expressed (Figure 1.1.7). While more and more design proposals attempt to engage historic settings, Semes’s comment is still valid today which leads us to the question: how do we analyze and critique new constructions in historic settings when there are always two opposing views? One is to celebrate the contrast between the new and the surroundings. The other finds the first strategies eroding the historic characters of the place.

1.2 The Dichotomy between Strict Preservation and Strict Differentiation

Design in historic settings includes various types of projects, such as rehabilitation, restoration, adaptation, extension, addition, extension, infilling, etc. However, two types of strategies are often used. One is the strict conservation of the historical structures where the contemporary/new aspect is restricted under the main goal of restoration. The historical architectural style and configuration are preserved, and new programs might be inserted into the shell. The contemporary architecture usually mimics the valuable historical styles. The other one is the differentiation between the old and the new. I want to name it as “strict differentiation”, because the differentiation is not a natural outcome of a process of connecting and synthesis of the old and the new. It is differentiation for its own sake. The second strategy bring more questions than the first approach. Since strict preservation is often applied to monuments and historical buildings with significant values, it is appropriate for thoughtful preservation. However, the strategy of differentiation is more ambiguous in terms of how we should express through new design within the historical context. In many projects, the old and new are
represented as two entities which contrast with each other. And these projects propose the interesting and creative “unity by contrast”. The term itself is problematic and causes confusion. Aesthetically, unity and contrast will never co-exist. However, new intervention could complement the old structures through adaptation. Program-wise, it is possible for a unity of the old and new. For example, MAD Architects, an internationally recognized architectural firm in Beijing, China, designed an interesting intervention in a traditional courtyard neighborhood in Beijing (Figure 1.2.1). The harsh contrast between the silver shining bubbles and the existing courtyard structures is apparent. However, the inserted bubbles serve the everyday needs well without conflicting with the Hutong life style according to the residents.\textsuperscript{10} Hence, there still remains more questions on the issue of how to manage contrast in historic settings.

A common argument favoring the harsh contrast could be that the new design could activate the existing context and assert a new meaning. However, it risks the possibility of overlooking the impact of the new asserted meaning on the existing context. Is “contrast” the only relationship that could be represented between the old and the new? How could we be less experimental when we juxtapose contemporary design with the historical environment? How could we produce meaningful new design that is mutually beneficial to the existing and to the future? How could we go beyond juxtaposition of the new and the old and move on to generate dialogues between the old and new? I want to answer these questions through the research and specifically to focus on the issue of architectural representation of the “relationship” between the old and the new.

\textsuperscript{10} Bloszies, \textit{Old Buildings, New Designs}, 73.
A series of “bubbles” in stainless steel were inserted into the Hutong residential complex, which provided functional programs that serve the current residents.
The development of modern architecture began in the first half of 20th century. The spirits of the avant-garde largely influenced the modernization of architecture: the prioritized goals for generations of architects since then have been innovation and changes.

On the other hand, the early development of some fundamental theories of preservation could be dated to the time of Renaissance, as architects attempted to revive the architecture and culture of ancient Roman and Greek civilizations. After that, the development of preservation theories could be represented by two camps - the English School and the French School, with a third, in-between path of the Italian School. The French School established a comprehensive and scientific system of assessing historical materials. The most influential figure representing this group was Sir Eugène Viollet-le-Duc (1814-1879). Viollet-le-Duc’s approach favored an idealized restoration of historical structures which did not actually exist in any historical moment. The English School, which is represented by John Ruskin (1819-1900) and William Morris (1834-1896), was associated with the Anti-scare movement and were “non-interventionist”. The English School also introduced the doctrine that any necessary new material added to the historic structures must be differentiated from the historic fabric of the building. The English School was against any form of intervention that would lead to a faked historical representation.

The Italian approach of historic preservation, which is neither idealization nor over-sentimentalizing, encourages critical interventions and offers critical lessons to learn regarding new design in historic settings. The Italian School is represented by writings of the architects Camillo Boito (1836-1914) and Vittorio Gregotti along with works by
Carlo Scarpa. Italian designers and restorers explored a middle path between the positions that would be articulated by the French school and the English School. Camillo Boito advocated a third middle path which rejected both the arbitrary perfection/falsification with history of the English and the refusal to intervene of the French. Boito sought to render the historic form by restoring original fabrics wherever possible and adding wherever necessary - a modest and differentiated infill that kept the chronology of interventions clear while avoiding excessive contrast. As demonstrated in the following chapter, Scarpa, a modernist architect, integrated historical elements into the old building as valued participants in a new architecture.

Since the beginning of the 21st century, historic preservation has taken a much more inclusive responsibility in urban development and preserving cultural landscape. However, preservation is always concerned about losing the connections to the past. The connections could be in many forms – physical monuments, buildings and intangible heritage like culture and collective memory.

Semes observed the dichotomy between preservation and architectural design as the architectural profession has "abandoned the conservation of historic sites to the care of historians, archeologists, museum curators, art conservators, and other specialists ... the new preservation culture had little interest in the continuance of architectural traditions, but only in stabilization and preservation of the artifacts produced by those traditions ... now superseded by modernism."11 If a person has the left eye of an architect, and the right eye of a preservationist, the left eye often looks forward into the

---

future, while the right eye often looks backward into the past. This lack of common
ground in the two separated professions has generated many controversial projects and
debates on the issue of new design in historic settings.

1.3 Reclaiming the Inherent Relationship Between the Old and the New

At the core of design in historic settings is the challenge of addressing the
relationship between the old and the new. It involves a process of analysis, interpretation,
and expression. It also influences how we understand the relationship between the past,
the present, and the future. There have been lots of case studies that look at projects
which have reused historic buildings or engaged existing structures since the 1990s: *The
Architecture of Additions: Design and Regulation* (1998) by Paul Spence Byard; *The
Future of the Past: A Conservation Ethic for Architecture, Urbanism, and Historic
Preservation* (2009) by Steven W. Semes; *Old Buildings, New Designs Architectural
Transformations* (2012) by Charles Bloszies; *Old Buildings New Forms New Directions
in Architectural Transformations* (2012) by Francoise Astorg Bollack; *Adaptive Reuse:
Extending the Lives of Buildings* (2016) by Liliane Wong; the Journal of Interventions
Adaptive Reuse started in 2009 by Department of Interior Architecture at Rhode Island
School of Design. This is not an exhaustive list of literature but shows important pieces
of work that contribute to the analysis of new design in existing context.

Bollack concluded that more and more designers were willing to working with
historical structures and existing context suggested the growing acceptance of
“architectural culture as a whole, including old, vernacular buildings and the built world
around them gave them license to explore history and the visual world to find
inspiration”. This statement suggests a process of “design with history” that could resolve the dichotomy between the old and the new and lead to a representation beyond material/technical differentiation, as commented by Semes:

While one cannot deny that differences exist between contemporary architecture and the architecture of the past, exaggeration and dramatization of that difference for its own sake reinforces the perception that disruption, distortion, and disorder uniquely characterize modern life, a view that denies the parallel and equally inescapable persistence of continuity and coherence - both as historical realities and as fundamental necessaries for human flourishing. Promotion of or acquiescence in an avant-garde cult of rupture simply reinforces a self-fulfilling prophecy that threatens the destruction of our historical built environments. In truth, the view that new architecture should confront the old in a spirit of opposition is probably the easiest solution.

To better discuss this broad and abstract topic of design in historic settings, it is important not to only look at the results as we see every day in the juxtaposition of old and new, but also to look at the process which generates the differentiation. Whether minimal differentiation in “strict preservation” or maximum differentiation in “strict differentiation”, the old and the new are treated as two separate entities. This denies that there is an inherent connection between the old and the new, which is the premise of the issue of integrity. It implies a simple separation of time into different periods and the development of history as a discrete process. The process of any historical development is multi-directional, circular/spiral, and evolutionary. Contrast and differentiation could be part of the process but should not be emphasized as the goal of the contemporary interventions.

Projects which are neither strict conservation nor strict differentiation have the

13 Semes, The Future of the Past, 36.
most creative potential and most challenges to face. To embrace these challenges, we need to re-establish and re-connect the past to the present. The new set of strategies I propose is based on a new position that avoids treating historical buildings or the historic context as “dead” entities which arouse romantic nostalgia and are not accessible to contemporary interpretations and expressions. That position also denies a superficial speculation on the future which emphasizes the difference too much and often leads to experiments: it tends to overlook opportunities to draw connections between the future to the existing and to the past.

I argue that by taking advantage of the preservation philosophies and strategies, contemporary design in historic settings could reclaim an inherent relationship between the past, the present, and the future. What is created as new design should be the results of re-making and modification. This hybrid process of integrating the old into the new creatively would replace differentiation, incorporating a sense of belonging and continuity throughout history. The process of generating new design in historic settings is suggested as following: first to acquire specific set of knowledge related to living in and using a place, including history, culture, memory, narrative, tradition, building typology, and program; second, to internalize the knowledge into the design process; third, to use new design to connect the past and the present. This process is not a linear one and each phase could be re-assessed and revisited as necessary. The process incorporates three alternative visions for design in historic settings which are:

1. Architectural Representation of History
2. Internalization of Content
3. A Hybridized Future
“Architectural representation of history” stresses the importance of integrating what learned from historical and contextual research into the process of design. It also underlines the relationship between the old and the new should go beyond a diagrammatic or programmatic interpretation. The juxtaposition of the old and new should happen at many scales, from form, material, to detail and spatial quality. And it should be designed with precision and caution.

“Continuity in differentiation” underlines the importance of acknowledging continuity and connections when differentiation is a byproduct no matter what we do and differentiation itself does not add value to what we do today.

“A hybridized future” argues that the preservationist perspective is never just about the past and the outdated, neither is architecture exclusively about new and novelty. Both preservation and architectural design must deal with changes: preservation focuses on managing change over time, while architecture is more about managing change over place. The future of how we build and dwell depends on both – how to manage change over time and over place. The former relates the sense of belonging, and the latter relates to the sense of place.

1.4 A Note on Terminology

Key terms with their definitions are listed. The definitions and notes combine my own interpretations with the most accepted meanings of the terms.

**Architecture Representation**

When I use the word architectural representation, it does not only refer to
drawings, renderings, or physical models but also material, detailing, and construction. Architectural representation means any physical or non-physical realization with a vision for the built environment. The term underlines that new design in historic settings is a representational problem, which brings a lot of uncertainty as the representation is based on how we understand and interpret the relationship between the new and the new.

**Authenticity and Integrity**

Differentiation is a direct response to the concept of “authenticity”. Authenticity is about both tangible and intangible historic layers. The “Nara Document on Authenticity” has claimed that “authenticity” should go beyond the emphasis on material authenticity: authenticity may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors.\(^\text{14}\) Authenticity is also subject to the progression of time: new design should be genuine to the time of its intervention to avoid creating a false sense of history. Integrity, while elaborated in UNESCO’s 1972 World Heritage Convention, refers to an equal respect to each of the stages in the historical development. Integrity does not focus too much on genuineness, instead it stresses the appropriateness of how we express the relationship between the old and the new.

**Continuity in Differentiation**

While new design follows the principle of authenticity, differentiation

between the old and new is inevitable. Hence, continuity in differentiation wants to address the importance of integrity in historic settings. Strict differentiation wastes the power of transformation as a great opportunity to counter “the capacity of fashion and commodification while grounding the site in a literal sense, to endow the work with a feeling of historical depth”, as the Italian architect and theorist Vittorio Gregotti commented.¹⁵ For Gregotti, the interest in the continuity found in the history of the architecture is embodied in the notion of belong and in the idea of place both as identity and as impure material.

**Context and Content**

Context includes the physical built environment as well as historical, social, cultural, and economic contexts. While context refers to exterior forces that have impacts on the design, content refers to things that are more directly associated with the new intervention such as the existing condition of the building, sensual properties of the space, how the space is used, narrative and collective memories, etc. Content could be internalized into the design process and is an essential step to make connections between the present and the past.

**Criticality**

A critical path of new design in historic settings is a path to reevaluate historical and existing values and to make the most of the associative properties and the

ways a place performs.16

Regionalism and Critical Regionalism

The early theories of Regionalism insisted on the need of architecture to be "authentic". Common strategies include the use of local materials, adopting local construction technologies, sensitivity to context and scale.17 Critical Regionalism was developed from Regionalism. But it criticized Regionalism that it might lead to an idealized perfect representation of the local authenticity or any imputation of regressive nostalgia.18 Hence Kenneth Frampton used the word “indirectly” when he described the fundamental strategy of Critical Regionalism was to mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular place.19 Regionalism and Critical Regionalism both attempt to resist the appropriation of a way of life and a bond of human relations by alien forces. The American poet, novelist, cultural critic, Wendell Berry, made a similar comment, which he called as “a regional motive”: it is defined as local life aware of itself and it could substitute for the myths and stereotypes of a region a particular knowledge of the life of the place one lives in.20 Berry argued that the continuance of local knowledge was key to the awareness of that local life.

---

Tradition

The definition of tradition is based on Semes’s definition: tradition is not something we have – an unchanging set of “rules” – but rather, something we do, which is an active cultivation of models, examples, and experiences to inform our work in the present.21 Either traditional architecture or traditional construction indicate aspects of historic architecture and urbanism that have long been part of an ongoing balance between constancy and change in local building cultures. The practice of traditional architecture entails the gradual accrual of a body of knowledge that changes slowly, rather than a search for unprecedented solutions or unique gestures.

The Act of Modification

The idea architectural design as an act of modification was developed by the Italian architect, Vittorio Gregotti. For him, no new architecture can arise without modifying what already exists and architectural design is inseparable from the notion of belonging:

…each situation offers a specific truth, to be sought and revealed as the essence of the goal, and as the truth of both the site and the geography that embodies the site's particularly history; with modification comes the conception of "belong" – to place, to culture, to tradition, to region – in opposition to "tabula rasa … isolated object, an infinitely and indifferently divisible space… the notion of belonging develops transverse relationships for which project design primarily represents a process of modification: one that attracts and organizes the debris contained in the context, and that constructs from those pieces asymmetry, varying density, and the values of diversity. 22

1.5 Methodology

The purpose and goal of this thesis is to focus on the issue of architectural

21 Semes, The Future of the Past, 36.
22 Gregotti, Inside Architecture, 67-68.
expression of the relationship between the contemporary and the historical with ideas and principles learned from the preservationist practice. The scope of the research is limited to public buildings in historic areas and in urban settings, where the public is most concerned with new interventions. The period of projects analyzed will range from the middle of the 20th century to the first two decades of the 21st century. The research also takes cultural differences into account by including a project in China, which hopefully will illustrate different and similar attributes in how preservationists and designers approach new design in historic settings.

The methodology relies on case studies, which has been a productive analytical tool in architecture and preservation. Four projects are selected to illustrate the three proposed strategies: Carla Scarpa’s famous Castelvecchio Restoration in Verona; Koldinghus Castle in Western Denmark by Inger and Johannes Exner Architects; the new Barnes Foundation in Philadelphia by Tod Williams Billie Tsien Architects; and the Square Pagoda Park in Shanghai, China by architect and planner Feng Jizhong. The intention focuses on each project has been: how the vision develops regarding the relationship with the existing and the historical; how the relationship between the old and the new is physically and visually represented; how each project develops its unique strategy of interventions. Graphic diagrams and visual representations accompany the analysis. Complementing the case studies is a literature review on historic preservation, post-modern architectural theories, and writings relevant to the selected case studies. Ultimately, I hope through this thesis to present thoughtful and clear visions of how new design can interact with old.
2. The Three Strategies

2.1 Architectural Representation of History

The first alternative strategy of design in historic setting is “architectural representation of history”. Architectural representation refers to the action of realizing an architectural object, which could be a drawing, a rendering, a physical model, or a building. Architectural representation of history emphasizes an extra layer, which is to relate these actions to a historic context.

Paul Spencer Byard, the writer of *The Architecture of Additions: Design and Regulation*, who was also a lawyer and an architect, thought that any additions to historic buildings were significant because of the new combined meanings they expressed:

The public worth of architecture resides partly in what buildings do, in the functional support they provide for our lives, and partly in what buildings say, the understandings they display publicly and for long period of time about ourselves, our capacities, and our purposes as human beings. The second aspect of the worth of architecture – the worth of its meaning – derives from the inescapable entanglement of architecture with expression. Anything built inevitably says something about what it is doing, about those involved in it, and about their view of the world.23

Byard pointed out, “the public worth of what architecture says is recognized by law, most importantly by laws expressing public interests in historic preservation”.24 Thus, any new interventions will convey some new combined meanings together with the old. This additional responsibility attached to architectural realization responds to the “conservation ethic”, a term used by Semes. For Semes, the “conservation ethic” means the management of change to avoid unnecessary loss and is tied to the concept of culture

---

“to cultivate, to dwell, to take care, to tend and preserve”. Both Byard’s term of “expression of meaning” and Semes’s “conservation ethic” stress that new intervention should not only focus on the aesthetic synthesis of the old and the new but also be aware of the meaning expressed by the physical interventions.

Three case studies are selected to illustrate three different ideas under the strategy of “architectural representation of history”: Castelvecchio (1956-1964) in Verona, Italy by Carlo Scarpa; Koldinghus Castle (1972-1994) in Western Denmark by Inger and Johannes Exner Architects; and Square Pagoda Park (1978-1987) in Songjiang, Shanghai, China by Jizhong Feng. Each of the case study represents different approaches to addressing “architectural representation of history”.

2.1.1 “Visualizing History” / Castelvecchio, Verona, Italy

Carlo Scarpa’s Castelvecchio in Verona, Italy (1957-1964) visualizes history through giving presence to history throughout his design. Scarpa was commissioned by the museum’s new director, Licisco Magagnato, an art historian, in 1957 to work on the Castelvecchio Museum. His method was subtle yet aggressive, which includes accepting and working with certain previous renovation as well as removing section of historical fabric and making modern constructions throughout. Director Magagnato commented on Scarpa’s overall design strategy at the Castelvecchio Museum:

In implementing the surgical renewal within which he works to restore unity and life (and what else than this kind of probing can be the basis for true “historicist” restoration?), Scarpa not only reveals the essential coordinates of

---

25 Semes, The Future of the Past, 35.
the complex but also the materials that constitute its corporeal essence. This is the story of what happened at the Castelvecchio, both directly, in the excavation and rediscovery of old stonework, marble, and brickwork, and also in Scarpa’s familiarity with the city, enabling him to absorb the local color of its walls, streets, pavements, and stone cladding. In this way, not the form but the corporeal essence of medieval Verona comes to life in the restoration...27

Bollack described Scarpa’s method as “selective excavation” and “creative demolition”:

Scarpa was not interested in any concepts of restoration but an idea to do with historical clarity, making history visible by the co-existence of overlaying fragments of construction.28 The following analysis investigates some specific aspects of Scarpa’s design method regarding how he brought life to historic traces and created future meanings.

The North Inner Wall Window Screen

Sergio Los, who is an Italian architect and thinker, was one of the first few people to write about Scarpa’s projects. Los observed that among Scarpa’s projects windows play an important role in the interpretation of architecture from the point of view of immediate surroundings and regional context.29 Through a study of the window, Los traced Scarpa’s development of the “corner windows” and double façade cladding openings around 1950s, which was derived from the architecture of the towns in the Veneto (Figure 2.1.1.1): the light produced by these corner-windows became a chromatic luminosity full of transparency, typical of the region’s visual art’s for centuries.30 Later,

28 Bollack, Old Buildings New Forms, 15.
29 Sergio Los, Carlo Scarpa (Germany, Cologne: Taschen,1994), 38.
30 Los, Carlo Scarpa, 40.
Figure 2.1.1.1
Corner window in the extension of Gipsoteca Canoviana, Possagno, 1955-1957
Scarpa moved from corner-windows to the double façade cladding openings because he discovered that the new openings could most effectively achieve the typical light of the Veneto countryside and its paintings, a light which was central to the natural and cultural character of the region.31

The north inner wall window design at Castelvecchio can illustrate how Scarpa “visualized history” through sensitive juxtaposition of a new window screen with the historic windows and taking advantage of the lighting effects (Figure 2.1.1.2). The windows on the wall were transformed by Scarpa into moments when the old meets the new and stages where the old comes to speak to us. Scarpa preserved the historical windows with a continuous screen of glazing behind, independent from the old façade (Figure 2.1.1.3). He juxtaposed the new contemporary steel window frame with the old windows while making decisions at very detailed levels: positions of new mullions, the proportion of glazing to frame, how the joints should be designed when the old and the new connected, etc. He sketched and drew over images and photographs (Figure 2.1.1.4) to think about the effects of the silhouette of the new mullions behind the original openings in natural lighting (Figure 2.1.1.5). Scarpa’s feeling for learning by doing – sketching, drawing, and making – protected him from abstraction, which Los claimed was the reason that he could always distanced himself from the functionalist as well as the historical schematism of the modern school.32 Scarpa’s design process was interpretive and focused on specificity – to the detail of each joint – and locality – to the sensual qualities of lighting conditions at a given time at a given location.

31 Los, Carlo Scarpa, 44.
32 Los, Carlo Scarpa, 12.
Figure 2.1.1.2
Plan of the Castelvecchio Museum in Verona, Italy.
Source: Murphy, 1990, p2.

The north inner façade toward the inner central courtyard is highlighted in red, which is the interested area of the analysis.
Preserved openings on the north wall were designed as a continuous new screen, with a second inner and independent façade containing new windows.

Before Scarpa began working on Castelvecchio, the architect Forlati Avena was working on the restoration of the building from 1924-1926: the interior of Castelvecchio was restored to a renaissance style, including false wood beamed ceilings; the barracks' facades on the courtyard's northern and eastern sides were reconstructed to form a historical 'mask'; the rectangular grid of Napoleonic apertures were replaced with symmetrically composed groupings of Venetian Gothic and Renaissance windows salvaged from the Adige flood of 1882.33

---

North inner wall elevation (continued from the opposite page).
Figure 2.1.1.4
Scarpa’s sketch shows how he worked with the diagonals generated from the existing openings as well as the sectional profile of new mullions in relationship with existing ones.
Source: Murphy, 1990, p81.
Figure 2.1.1.5
Photo of the statues of the saints in the second exhibition room as in silhouettes against the new and old windows.
Source: Murphy, 1990, p81.
For Scarpa, the juxtaposition of the old and the new should never be arbitrary but mutually beneficial. Scarpa’s strategy of juxtaposition was also an answer to the question of authenticity. For him, authenticity means being authentic to the time when the intervention happens. While Scarpa had worked in Venice, he commented:

The problem of historical materials, which we can never ignore but can’t imitate directly either, is an issue that has always concerned me… I’ve had nothing but trouble from planning rules in Venice and the bureaucracies who interpret them. They order you to imitate the style of ancient windows forgetting that those windows were produced in very different times by a different way of life with “windows” made of other materials in other styles and with a different way of making windows. Anyway stupid imitations of that sort always look mean. Buildings that imitate look like humbugs and that’s just what they are.34

This recognition of values existing in the historic as well as the contemporary responds to Boito’s “middle path” for restoration, which is to respect and reveal all the historical layers involved, even those less successful, and that whatever was new should complement them. For Boito, the question of an architectural intervention was not an either/or matter, but a moderate acknowledgement of both sides, an interweaving of fabric that supported both the new and the old.35

“Spatial Joints”

Technical detailing is very important for any intervention projects. Scarpa was aware of how much the loss of ornament shown at the joints would stultify architecture: profiles, edges, moldings etc. could show how the elements of a building attack and repel each other, while their disappearance leaves all relations between these elements in

---

34 Richard Murphy, Carlo Scarpa and Castelvecchio (Milan: Edizioni di Communita, 1982), 4.
35 McCarter, Carlo Scapa, 15.
limbo. The physical joints between the old and the new become spatial-temporal joints where the designer can give presence to the history. Scarpa stressed the joints and sought to enhance them by dissociating the whole into its component parts. It was evident that Scarpa tended to design in fragments, according to Los, many of his projects grew around a pre-existing nucleus, and to his continual revision of what was already on the drawing board.

Scarpa's work was aimed at local complexities which were becoming increasingly autonomous and independent of any center of hierarchy, like how he developed the detailed design for each individual window. “Scarpa didn't respond to the loss of a center with any analytical approach, resolving the whole into ready-made self-sufficient units; rather, he put forward a program which proceeded piece by piece, the fragmentary nature of which kept open the hermeneutic circularity which characterized the interpretation of texts as well as being the hallmark of Scarpa's architecture.”

Scarpa’s strategy to create “spatial joints”, such as the north wall window intervention, was applied consistently throughout the building: the detailed juxtapositions of new structures and historic fragments were prevalent and not only occurred at the boundaries where the old met the new. Los argued that a technical interpretation of Scarpa's designs was more appropriate than the usual highly formal approach:

They do not visually reproduce those mechanical technologies found in some engineering transpositions, nor do they reflect the outlines of the orders as in the historicist style. Scarpa's works exemplify the rhythms, the movements and the textures of the referents, in the sense that they share precisely these qualities with them and make their relevance clear. Scarpa's aim was a tighter

---

36 Los, Carlo Scarpa, 16.
37 Los, Carlo Scarpa, 16.
38 Los, Carlo Scarpa, 30.
and more articulated language of formal elements in order to reveal them as shapes.\textsuperscript{39}

The method which Scarpa expended on the original north windows was architecture used as a form of criticism. Los commented that this form of criticism is akin to the Romantic concept, criticism as the consummation of a work of art, rather than a judgment passed on it.\textsuperscript{40} Scarpa treated any opportunity of intervening with existing structures or artifacts as an appropriation on the original work. Los described it as the process of “awakening the reflection by which the work becomes aware of itself”, which I interpret as the process of bringing life to the past. Scarpa’s architecture functions like a system of symbols, as an architectural language, becomes a means for the recognition/production of reality which stresses the connections we have with the past.

2.1.2 Technical Representation of History / Koldinghus, Denmark

The idea of “technical representation of history” is illustrated by the Koldinghus Castle (1972-1994) in the town of Koldinghus, Western Denmark (Figure 2.1.2.1). The architects of this project are Inger Exner and Johannes Exner.

In an interview about the castle restoration project, Inger and Johannes Exner were asked in what way their restoration strategy was different from Scarpa’s Castelvecchio. Inger and Johannes Exner answered: first, their work at Koldinghus was reversible, as the added new materials could be removed to have the original ruins again; second, they argued that Scarpa’s Castelvecchio was driven more by aesthetics rather

\textsuperscript{39} Los, \textit{Carlo Scarpa}, 26.
\textsuperscript{40} Los, \textit{Carlo Scarpa}, 30.
Figure 2.1.2.1
Exterior photograph of the castle shows the differentiation of new in-filled shingles with the historic bricks on the South facade with the entrance to the castle. Source: Author, 2012.

From the exterior, there is a dramatic contrast between the original brick wall as ruin and the dark wood shingles as infill, which could lead to a straightforward diagrammatic reading of the relationship between the old and the new. On the other hand, one will understand the sophistication of the technical development when looking at the interior and the section.
than historical value, hence they wanted to avoid any level of subtraction and be ‘honest’ with the issues and the demands they made on themselves.41 These answers indicated something different in their attitudes toward new intervention: in this project, the preservation principles guided the design process and the design outcome followed a rigorous building-archaeological survey.

Inger and Johannes Exner had worked on many church restoration projects before getting the commission to work on Koldinghus Castle. The early historical studies of churches had led them to a deeper understanding of church space. From these experience, they developed the idea of “content” – which I understand as a set of acquired knowledge related to living in and using a place, including its history, culture, memory, narrative, tradition, building typology, and program, Inger and Johannes Exner said, “it is the content that gives the form. It is of utmost important to get to the crux of the matter and not be afraid to acknowledge the ultimate content of the problem, nor avoid compromises”.42 What they also learned from church restoration, besides methodology, was the belief that any historical building can be viewed almost as an organism, a living creature with a continuous life cycle.

**The Conservation Ethic**

After the commission a building-archaeological survey was conducted. The architects received a provisional appropriation to do a survey of Koldinghus and they intended to “read” the building and to use it as the primary source in learning the story of

42 *Koldinghus*, 8.
the castle. The project team were four architects, who conducted the documentation and survey for two months. At first, the task seemed almost boundless and they had to figure out a systematic way of working together. For instance, they divided the façade up in zones and described each one, including the details that were not immediately understandable. As the survey work progressed, the team started to see the individual parts merging to form patterns. They learned the language of the brickwork and arranged the traces and marks in relation to one another. With this, the different details started to take on meanings. Even the nuances in the layers of stucco could now be given a meaningful significance. This survey gave them a comprehensive view and an understanding of the complex building and its dramatic life. What they carried out was the first building-archaeological survey of Koldinghus. Their work was also made expedient with the expert assistance of architect Gert Bech-Nielsen from the restoration department at the Architect School in Aarhus, Denmark. They performed a photogrammetric survey of the largest object to date in Denmark.⁴³

**The Building and the Ruin**

The idea of a structure with free-standing columns between the ruin walls arose in 1973, after the overall proposal – façade in-filled with wood and a tile roof – was approved (Figure 2.1.2.3). The strategy included: the castle’s outer baroque form and its uniform window rhythm should be filled in with brick; other materials would be allowed

⁴³ *Koldinghus*, 10.
Figure 2.1.2.2
Illustration of the perspective section exposing the south wall.
Source: Koldinghus, 1994, p50.

The exposed section shows a 100-meter-long horizontal truss brace extends from the north-east corner to the south-west corner.

The new construction included an expansive wood truss system throughout the castle. This was an independent structure on which the new façade, new floor platform, everything new was hung. The old and the new literally did not touch each other, leaving an air gap in-between, like Scarpa’s “spatial joints”. In this case, the technical representation at every juxtaposition between the new design and the historic structure reinforced the narrative of the castle: not a ruin or a building but a ruin and a building.
Figure 2.1.2.3
Photograph of the new shingle siding in contrast with the old bricks.

The large hole in the south façade is covered with oak shingle siding, which is hung from the new column structure, as the old brick are not structurally sound.
only where the walls were structurally unstable (Figure 2.1.2.2). The columns were elaborated three years later to become branched columns with movable bases (Figure 2.1.2.4). These columns bore the roof and the large timber outer wall, since the ruin walls could not be used for structural support.

The narrative content and authenticity were assured through the restoration method chosen for the project. Subtractions such as tearing down and removal of even the ugliest parts were avoided. Instead, the functional and technical problems were solved by inserting the new structure system: new and necessary functional components were clearly separated from the old fabrics, visibly and physically. In between the old was a new and independent structure of laminated wood, with columns that bear the deck and roof. On the north side of the ruined hall, were three suspension bridges that hang from the capitals of the columns. These were counterbalanced by a hanging wooden wall on the south side, which closed off the ruin’s great slab. To avoid damage or concealment of the old brickwork by the new building components, they were held free of each other.

“Air” was employed as a “joining material” and always gives an exact fit (Figure 2.1.2.7). This method also allowed the new building components to be prefabricated, so that the construction could be more precise in terms of time and money (Figure 2.1.2.4 and Figure 2.1.2.5).

Koldinghus thus appeared as a building monument with a great narrative content (Figure 2.1.2.6). Both inside and out, the brickwork’s many marks and remnants revealed the historical life of the castle. Those who wandered through the building

---

44 Koldinghus, 11.
The design of a removable base for the column, first, is intended for a minimal effect on the historical fabrics. Second is to make it possible to prefabricate the wooden pieces to make the construction more efficient and precise.
Figure 2.1.2.5
Movable base of the column in the main hall.
Source: Koldinghus, 1994, p51
The Ruin and the Building.

All of the new parts are characterized by a precision in material and craftsmanship that contrasts with the coarse worn surfaces of the brickwork.
complex and noticed the language of the historic brickwork acquired a greater understanding and a greater knowledge of the castle’s eventful history. With this immersive experience, one came to realize that the most important museum object here at Koldinghus was the castle itself.

The historical identity of buildings is thus not only what they received at birth from the architects, artists, and craftsmen who created them, but also is formed and changed by the life that follows. If the life of a historic life has been eventful, intervention such as preservation might intend to stop the natural historical aging process, which also alters the activities happen inside the building. It brings the questions whether to revive a building and to bring it back to its original form to the restoration profession. In any case, a restoring architect must address this problem in his or her work.

2.1.3 Exhibiting History / Square Pagoda Park, Shanghai, China

The idea of “exhibiting history” is illustrated by the Square Pagoda Park. The park was built on the outskirts of the city of Shanghai, which belonged to a suburban district named Songjiang. The park was designed and constructed from 1978 to 1987. The architect and planner of the park was Professor Jizhong Feng, who at that time was teaching at Tongji University in Shanghai. The Shanghai Ministry commissioned him to design a new park and preserve the historic structures at the site.

Feng is one the founding fathers of China’s modern architecture. He founded the College of Architecture and Urban Planning at Tongji University in Shanghai and established the first Urban Planning program in China. Feng was born in 1915 in a noble family in Henan Province China and was deeply influenced by the traditional Chinese
Figure 2.1.2.7
Photograph of the “air joint”.
Source: Author, 2012.

The photograph shows the “air joint” between the original brick and the new platform at Koldinghus Castle.
culture as he grew up. In 1936 Feng went abroad to study architecture at the Technische Universität Wien in Austria. He came back to China in 1946 and dedicated himself to establishing and improving the modern architectural education system in China.

Feng is an important figure in the transition period when modern architecture was first introduced to China. He explored and established an alternative path of Chinese modern architecture which was deeply rooted in the traditional building culture. As one of the few built projects by Feng, the Square Pagoda Tower Park is a unique project which illustrates his design theory which unites heritage preservation, contemporary design, and landscape design.

Open-air Museum in A Park

The park has an area of 11.51 square kilometers, equaling about 2844 acres. It is in the historic center of the county of Songjiang: including many important government, religious, and commercial buildings (Figure 2.1.3.1). However, due to wars and social political instability in the first half of the 20th century in China, most of the original buildings were damaged and destroyed. The Square Pagoda was fortunately left with most of the original brick materials intact (Figure 2.1.3.3). In 1976 the pagoda was restored to as it was built in the period of the Song Dynasty (1086-1094). The form and structure of the Pagoda inherited the style of Tang Dynasty architecture, with a square plan, and used brick and wood as the main structure materials.45 North of the pagoda, another historic structure which survived the war at the time was a screen wall with brick

45 Jizhong Feng, With the Old Becomes the New – The Design and Planning of the Square Pagoda Park (Beijing: The Eastern Publishing Co., Ltd., 2010), 124.
**Figure 2.1.3.1**
Historical map of the Songjiang County from Qing Dynasty.

The highlighted area in the Songjiang County map from Qing Dynasty (16th to 19th century) shows that at the center of the county are the county government building, the Old City God Temple, and the Xingsheng Temple. The Square Pagoda is a historical relic of the Xingsheng Temple and used to be called by the same name, Xingsheng Pagoda.
carvings from the Ming Dynasty (1370) (Figure 2.1.3.2). Both the pagoda and the screen wall are monuments under the protection of the Shanghai Municipality.

Before the new park was planned, a decision was also made to move the Temple of the Queen of Heaven into the park. The temple was originally located in Suzhou and was dated to the Qing Dynasty, built in the period between 1500 to 1800. Thus, the Square Pagoda, the screen wall, and the Temple of the Queen of Heaven were the three main objects to preserve, and Feng integrated them into the masterplan of a new park. Feng called it as “a garden of historical artifacts”. Feng stated that he wanted to continue and inherit the traditional way of Chinese garden-making while taking account of the contemporary conditions to find a new path for landscape planning and design.

The Pagoda, The Wall, the Temple, and the Plaza

The first critical task of planning the park was to determine the organization of the three historic artifacts in the park: the Square Pagoda (Figure 2.1.3.5), the screen wall (Figure 2.1.3.6), and the Temple of the Queen of Heaven (Figure 2.1.3.7). Piling up hills and dredging waterways are two basic methods of creating traditional Chinese gardens. Feng used these fundamental tools – hills and waterscapes – to frame and curate the three historic artifacts within the landscape. The preservation of the three historical artifacts was done through a curatorial approach, which is similar to Scarpa’s approach of “visualizing history” at Castelvecchio, but in a landscape setting instead.

---

46 Feng, With the Old Becomes the New, 124.
47 Feng, With the Old Becomes the New, 124.
Two historic photographs show the condition before the new plan for the park was created. Overgrown weeds and a few old trees surrounded the pagoda and the screen wall.
Detailed plan of the plaza shows the relationship between the three historical artifacts: the pagoda in the South (highlighted in yellow) with an open courtyard, the screen wall to the north of the pagoda (highlighted in red), and the temple in the northeast (highlighted in purple). The first task in planning the park was to decide the location of the re-located temple. Because the three pieces represented three different historical periods, Feng didn’t align the temple and the pagoda on the same axis. Scale-wise, the temple was larger than the pagoda. If they were aligned along a same axis, Feng was concerned that the temple would undermine the presence of the pagoda, while the pagoda had a longer history than the temple and was the main focal point in the park.
The pagoda, the screen wall, and the re-located temple date from three different historic periods. The Square Pagoda dates from the Song Dynasty, which is the oldest. The screen wall dates from the Ming Dynasty. The temple dates from the Qing Dynasty, the most recent one. In plan, Feng didn’t strictly refer to the orthodox placement of a pagoda in a traditional Chinese temple. Instead, he respected that the three historical objects originated from three different architectural systems and were from three different times in history.

Normally, the pagoda and the temple would be placed along the same axis. In this case, if they were aligned, Feng was concerned that the scale of the temple would weaken the presence of the pagoda, which would suggest that the pagoda was secondary to the temple. However, the pagoda, which was the oldest artifact and an original part of the site, should not be overshadowed by the re-located temple. The wall, which was north of the pagoda, was originally already skewed instead of being parallel to the pagoda. Feng also respected this existing relationship: the screen wall was originally part of the Old City God Temple, while the Square Pagoda was part of the Xingsheng Temple.

Besides the existing structures and the re-located temple, Feng intentionally did not design any extra elements which would be required to restore a perfect copy of the Xingsheng Temple around the pagoda or to rebuild the Old City God Temple around the screen wall. Thus, he was able to cleverly avoid the issue of choosing one historical period over another. Instead, Feng represented the three pieces as segments. This minimal approach avoided uniting the different historical objects because it did not

---

48 Feng, *With the Old Becomes the New*, 124.
Figure 2.1.3.5
The Square Pagoda, Song Dynasty.
Figure 2.1.3.6
The Screen Wall, Ming Dynasty.
Figure 2.1.3.7
Temple of the Queen of Heaven, Qing Dynasty.
Figure 2.1.3.8
Photograph of the back of the screen wall.
Source: Author, 2017
represent them as certain complete and perfect expressions of history. In addition, Feng did not try to mimic either the style or the configuration of a classical Jiangnan garden. Instead, he concentrated on how the existing three structures could be enhanced as several focal points through integrating them into the environment, the landscape, and the flow of space.

His approach was fundamentally “modern” as it did not separate the historical structures from the environment but treated them as part of the urban fabric. It was essentially “traditional” as well because the designer drew upon his knowledge about traditional Chinese architecture and the traditional spirits of Chinese garden making.

The terrain of the Songjiang Region is quite flat with river streams and lakes intertwining through, while there are undulating ridges and hills in some areas. Feng used the characters of the regional landscape as inspirations to treat and design the topology inside the park. Feng used the existing “T” shaped watercourse and expanded it to an artificial lake in the south.

A traditional pagoda in China is often surrounded by a closed courtyard. This is different from a western monument, which is usually located at the center of an open space. The scale of the courtyard becomes important to frame the sense of height of the pagoda. Feng said the courtyard of the pagoda had to be flat and large enough, otherwise the pagoda would lose the sense of ascending as one gets closer. Hence, the northern and southern walls of the courtyard were located at 23 meters from the center of the pagoda, so that the angle from a viewer to the top of the pagoda was about 65 degree, which was enough to make the pagoda looker tall. The design of the walls of the courtyard were minimal and simple so not to distract attention from the pagoda (Figure 2.1.3.8). The
Figure 2.1.3.9
Master plan of the Square Pagoda park.
walls also helped to conceal the fact that the ground surface outside the boundaries of the courtyard was higher than the pagoda courtyard. To the west of the pagoda courtyard originally was a small slope which was enlarged. The western hill and the northern screen wall together created extra points of views inside the courtyard.

The plaza (Figure 2.1.3.9) was the vital link between the three historical structures. In front of the Ming screen wall, a platform was created to encourage visitors to look at the details of the brick carvings (Figure 2.1.3.6). In the north of the plaza and to the west of the temple were several ancient trees. The trees were integrated with new platforms designed in various heights, which were created to preserve the roots of the old tress and to make a contrast with the open, flat, minimal plaza. The ground surfaces of the plaza, the courtyard, and various platform were paved in different types of stones and in different brick pattern (Figure 2.1.3.10).

The focal point for tourists and visitors was clearly the Square pagoda. So it was significant that Feng designed the path from different entrances to the pagoda. The original path from the north to the tower was a shady soil path. Feng followed the existing route and paved a lengthy stone-paved passage, going high and low. Feng framed the path with existing tress. The path from the eastern entrance to the pagoda was guided toward the north first by staging a screen wall and a festoon gate. Then the path led to a stone-cut road which was connected to the raised platform of the temple (Figure 2.1.3.11). The stone-cut road was not straight and kept shifting which was a strategy common in Chinese gardens to create a winding path leads to a secluded quiet place in a surprise.
Figure 2.1.3.10
Different pavements of the ground surfaces at the courtyard around the Pagoda. Source: Author, 2017.
Figure 2.1.3.11
View of the Temple of the Queen of Heaven from the stone-cut road.
2.2 Internalization of Content

The second strategy of design in historic setting is “internalization of content”, which is to confront the issue of how to address continuity in differentiation. Differentiation of new intervention from the historic fabrics has become the norm, like an item on a check list, but this has a consequence: we do not encourage the study and interpretation of historic materials and the existing context. Either strict preservation or strict differentiation implies that historic buildings have little relevance to how we design buildings and cities today. They are documents of their own time. However, I still believe that historic places are or ought to be living entities, that not only can grow and accommodate change without losing the character that qualified them for preservation in the first place but can also provide models for new works in other places and times. Los, who wrote extensively on Scarpa’s design, addressed the issue of continuity throughout the development of history:

If a project continues after the death of its architects, it must be finished by someone who, knowing this language, can bring it to completion. This handing-down of a project from generation to generation, common enough anyway, is now becoming the norm where 'civic architecture' is concerned. Squares and streets are 'rooms', whose interior walls are the facades of houses dating from different epochs. Continuity would be precarious if there were no shared language. Scarpa’s visual system in architecture is thus an original contribution towards overcoming the many difficulties facing contemporary designers when they enter a historical context.49

The new Barnes Foundation designed by Tod Williams Billie Tsien Architects illustrates how the architects internalized the content of the old gallery into the design process and came up with their own interpretations. The final architectural realization

---

49 Los, Carlo Scarpa, 36.
was different from the original gallery in Merion, but the main design concepts preserved and continued some of the most fundamental ideas associated with the art foundation.

2.2.1 Interpretation Instead of Replication / Barnes Foundation, Philadelphia, PA, U.S.

Tod Williams Billie Tsien Architects were selected to work on the design of the Barnes Foundation at the new location on the Benjamin Franklin Parkway in Philadelphia in 2007. The original gallery in Merion, designed by Paul Philippe Cret and constructed from 1922 to 1925, is a handsome neoclassical building made out of French limestone (Figure 2.2.1.1). Paul Cret was an influential architect. For many years he served as the dean of the University of Pennsylvania School of Design where Louis Kahn was his student at that time.

The new Barnes Foundation is a unique project, as “replication” of the original gallery in Merion was a required component of the commission. It provides a rare opportunity to evaluate how architects struggle with the desire for invention within the confines of sameness. It is a case where continuity must be made even when the new site does not provide contextual information. It represents an approach of internalizing and interpreting content in the design process, which includes absorbing knowledge about the history of the Barnes Foundation, the original architectural design by Paul Cret, and the site/building relationship in the old location. Here, “context” refers to the physical built environment, while content refers to the intangible part which is related to the physical shell/container. Cret’s building becomes an original point for the “trajectory”, and the relationship between the old and the new is subtler and not straightforward.
Figure 2.2.1.1
Photograph of the north façade of the original gallery in Merion.

The Cret Gallery in Merion, showing the north façade, was designed in a Beaux-Arts style and French Limestone between 1922 and 1925.
“Gallery in A Garden” and “Garden in A Gallery”

Visiting the Barnes Foundation in Merion was a direct way to absorb and internalize the original context of the gallery, as Williams and Tsien recalled that day:

The taxi dropped us off at the gatehouse and after checking in with the guard, we walked into the garden. We had learned that the site was originally an arboretum and that Barnes’s wife, Laura, has started a horticultural program as a corollary to the art program. It was a day in early spring. The gardens were just coming to life with buds. Huge white flowers blossomed on a large magnolia tree. And at the edge of the lawn, fuchsia-colored rhododendrons made a brilliant border against the massing of mature pines. We heard only the sounds of the birds and our own footsteps. This powerful sense of entering through a garden would become an essential part of our concept for the parkway building.50

Based on this experience, the team determined one of the principle that the new building should address: the new home for the Barnes foundation on the Benjamin Franklin Parkway should be set within a park and to refresh the Gallery experience with light, calm, and reflective discourse.51

As the architects learned more about the Barnes Foundation collection, and they began to understand the requirement that the ensembles of planning and objects as well as the sequence of the rooms should remain intact. They listed two points that were crucial: first, the space that contained the art would be essentially predetermined in their size, shape, and placement of windows; second, the collection gallery would require their own identity and needed to “stand alone” rather than be incorporated into a larger whole.52 The architects learned that Barnes’s deployment of his collection was so pure and intense that any new program must not be confused with that “intact” experience.

Figure 2.2.1.2
Diagrams for a “gallery in a garden” and a “garden in a gallery”.

The conceptual diagram shows the architects’ interpretation of the Merion gallery as “gallery in a garden” and developed a new scheme for a “garden in a gallery”. The architects determined the final concept would combine the two ideas together.
Figure 2.2.1.3
Plan analysis by the architects.

These two diagrams show a careful examination of Cret’s plans by the architects, which reveal that when the ground plan and second-floor plans were placed on top of one another, certain walls lined up. These vertically aligned walls provided a clue, enabling the architects to open up the gallery experience.

The north-south walls separated the three small galleries at each end of the building from the central block. By conceptualizing slicing the walls open and spreading them apart, the architects realized they could insert a section of these new “found” spaces to provide a pause and sense of serenity.53

The new building on the parkway would more than double the square footage of the buildings in Merion. Much of this additional space was the result of enlarging areas that were already part of the existing complex: the shop, the library, public facilities, conservation, offices, storage, and mechanical space. And there were new programmatic elements – a lecture hall, seminar rooms, a special exhibition gallery, and restaurant – that were crucial not only to carrying out the Barnes Foundation’s original mission but also to supporting and expanding that mission. The architects decided that the “new” Barnes should relate to its original home in Merion by being dignified and solid, warm and textural, perhaps even incorporating African or metal ornamental motifs.

The visual connection from the rooms in the collection gallery to the gardens outside was of utmost importance to realize the conceptual idea of “gallery in a garden” and to make reference to the original gallery in Merion. New glass technology, which uses tinted and reflected glass layers, allows in only 14 percent of the natural light, making it possible to eliminate the heavy white draperies that sheathed the windows in Merion.54 One can stand at the full-height windows in the Main Room and look out directly into the raised garden. And on the upper floors, the tops of the trees are visible against the sky. Lighting-control systems have been customized for each room, designed to respond to the appropriate light-exposure level established in consultation with the conservation and curatorial staff. When necessary, a combination of exterior solar-veil shades and interior blackout shades was used. Today, on entering the main room, one can immediately sense the entirety of the room and its powerful relationship to nature.

54 Williams and Tsien, The Architecture of the Barnes Foundation, 146.
Figure 2.2.1.4
Photographs of physical conceptual models.

These are three iterations of a model from July 2008, which illustrate the major modifications to the Cret Gallery (top). The walls separating the end galleries on the first and second levels are pulled apart (middle) to make room for the garden and classroom insertions (bottom).
To carefully study all the large and small associated details, the architects team built a full-scale mock-up of a Collection Gallery room on a vacant lot. The mock-up included clerestories, windows, shades, moldings, plaster, the burlap wall covering, wood flooring, and several large color copies of paintings.
Figure 2.2.1.6

From the main room in the collection gallery, visitors sense the building’s relationship to nature. An outdoor plinth is planted with ornamental trees and broadleaf shrubs, evoking the Merion arboretum.
The New Façade

Finally, we felt that replication was, in a sense, the easy way out. And we were more interested in the idea of interpretation.\textsuperscript{55} - Williams and Tsien

After the architects’ team studied the Gallery façade in Merion, they were thinking about how to design a façade that felt related but also completely new. One attempt was to break down the symmetry of the Beaux-Arts organization. With the requirements of new programs, the architects argued for the potential to offer a new interpretation of the gallery:

while we wished to enhance the Parkway’s landscape and architecture, there was nothing about the new social condition, the vibrant message of what we believed the collection should mean, or the reality of Philadelphia, that suggested adherence to symmetry or a style based on hierarchy. Even as we respected the Gallery from the inside, we did not wish our building to become a slave to its symmetry.\textsuperscript{56}

With all this in mind, the architects began to look at the various patterns of African cloth as a way to think about the patterning of the stone in a way that both accepted order and denied it, referring to African motifs used by Barnes and Cret at the entry of the original museum in Merion (Figure 2.2.1.7).\textsuperscript{57}

The New Moldings

Moldings at the new Barnes Foundation also represent another attempt by the architects to interpret a new meaning from historical elements. Moldings played a prominent role in framing the interior ensembles. For Williams and Tsien, as

\textsuperscript{55} Williams and Tsien, \textit{The Architecture of the Barnes Foundation}, 153.
\textsuperscript{56} Williams and Tsien, \textit{The Architecture of the Barnes Foundation}, 77.
\textsuperscript{57} Williams and Tsien, \textit{The Architecture of the Barnes Foundation}, 78.
The cadence and patterning of the façade are informed by Kente cloth, an African textile from Ghana.
Figure 2.2.1.8
Photograph of the stone-panel façade of the new building.

Exterior stone-panel wall makes reference to the color and textures of the walls of the older neoclassical gallery. The pattern of stone joints is also contextual in a way, drawn from Kente cloth, a textile from Ghana reminiscent of the African art in the collection.
contemporary architects, moldings were rarely used in their work, and their first impulse was to avoid them. However, they eventually rejected the plan to avoid the moldings, because revoking the moldings would simplify the interior space and bring a false sense of spaciousness to each room.58 They also did not want to replicate the moldings, which was not appropriate as the windows were not exactly replicated at the first place. Replication was not possible technically or aesthetically.

Then the team moved on to study the subject of moldings – reading, looking, and building full-scale models of the Barnes moldings in wood and foam to better understand both the logic of their construction and their form.59 They chose to use the same number of steps and similar three-dimensional proportions but eliminates all curves from the profile. Through the full-scale mock-ups, they adjusted certain dimensions to enhance or decrease shadow lines – cast by the original moldings and a quiet but integral part of the ensembles (Figure 2.2.1.9). The end result was a contemporary molding system invention which followed the traditional logic of molding making.

Figure 2.2.1.9
Photograph of the “new” molding module developed based on contemporary interpretation of the logic of traditional molding.

The final molding profile has the same number of steps and similar proportions as its counterpart in Merion.
2.3 A Hybridized Future

The third strategy of design in historic setting is “toward a hybridized future”. “Toward a hybridized future” suggests an alternative reading of the built environment which opposes the thinking that any new construction must be something other, as opposed to tradition, historic and existing context. What we need to have as a final strategy of contemporary design in historic setting is to understand that the future of any form of construction and making lies not exclusively in innovation but also in the selective inheritance of the past. “A hybridized future” means an action and a process of accepting and integrating a pre-existing reality – being historic and being present - with a contemporary agenda toward the future.

“No new architecture can arise without modifying what already exists,” claimed by the Italian architectural theorist and architect Vittorio Gregotti. Essentially, any new construction in historic settings is an act of change and modification on any existing conditions. The modification may vary based on the level of intervention with historic layers. Boris Groys, an art critic, media theorist, and philosopher, talks extensively about artistic innovation and the processes supporting the recognition and appropriation of this innovation in his book On the New (2014). Groves argues, “with respect to tradition, however, the new is never just something other. Rather, it is always also something valuable that a historical period privileges, assigning the present precedence over both past and future. Therefore, even if the new is conceived of as something that proceeds from the other’s influence on culture and tradition, it cannot just

---

60 Gregotti, Inside Architecture, 67.
remain a symptom of the other.”61 In addition to the notion of ‘modification’ by Gregotti
and idea of “the new is not just the other” by Groves, Garth Rockcastle, an architect and
former professor at University of Maryland and the University of Minnesota, makes a
related argument, “when we make, we merely move, process, and assemble material that
already exists (physically or in our minds) - we make something or someplace into
another, which we may or may not call new.”62 All these ideas together challenge the
conventional perspective we have on the notion of “newness”. The new is never
something alien to what we already have around. The development of the new is a
hybridization of past models, precedents, and knowledge with the contemporary
conditions and demands. The newness is a hybrid of the past and the present.

The Square Pagoda Park in Shanghai and designed by Jizhong Feng is
discussed in the previous section. It also illustrates the strategy of “a hybridized future”.
One of the design principles for this modern park is to carry the present with the old will
form the new. The becoming of the new is also not an end but an organic process of
evolution, which coincides with Semes’s idea that differentiation of the new and the old
“would be the natural consequence of the different designers, interests, and varieties of
craftsmanship involved in the development of a site over time, rather than a self-
conscious dramatization of the difference between contradictory conceptions of
architecture”.63 In addition, for Feng, “the old’ underlines an intangible aspect of
architecture, which has a very poetic reading of space and place. “To be with the old” is

63 Semes, The Future of the Past, 36.
to understand the design philosophy underpinning the organization, configuration, sensual qualities of traditional architecture or vernacular architecture, as well as the cultural environment of a specific historical period.

The designs of the two entrance gates, the bamboo pavilion, and the stone-cut road are analyzed to demonstrate how Feng developed some unique and different contemporary designs which are simultaneously rooted in the local specificity and in the larger context of Chinese architecture.

2.3.1 Making New as to Re-new / Square Pagoda Park, Shanghai, China

Making new as to re-new is the design idea under the strategy of “a hybridized future”. This approach basically interprets the most recognizable elements in traditional Chinese gardens – form, component, circulation – and hybridizes these familiar aspects with contemporary articulations of structure and finishes.

The North and East Entrance Gates

The designs of the north and east entrance gates illustrate Feng’s design philosophy of making new as to “re-new”. The north entrance gate (Figure 2.3.1.1) has tiled roofs like traditional Chinese architecture. However, the scale of the entrance gate is larger and much more open than a normal gate to a Chinese garden (Figure 2.3.1.2). The north entrance gate actually combined a gate, a shed, and a pavilion – common architectural structures typical in a Chinese garden – together.

The north gate uses steel frames as the main structure. The tiled roof is the
The roof consists of two separate sloping roofs with tiles. Unlike traditional architecture, the two roofs are not aligned and connected at the top ridge. They slant in different angles and intersect, leaving a gap in between the two roofs and exposing the steel frame structures underneath.
Figure 2.3.1.2
Photograph of the entrance gate to Jichang Garden, in Wuxi, Jiangsu Province, China. Source: Google Image.

The photograph shows a typical gate to a Chinese garden in the same region of the Square Pagoda park. The entrance gate is smaller and more private.
combination of two sloping roofs which intersect. The two roofs don’t align and close at the top ridge like a traditional Chinese roof (Figure 2.3.1.3). Beneath the roofs, welded steel bars, posts, columns and girders are exposed (Figure 2.3.1.6). The steel columns and the girders change support the tiled roof, making the gate entrance look very light. The overall form of the gate entrance reminds one of traditional Chinese architecture immediately. While with a closer view, the exposed steel frames directly express a different message, that this design is not about replicating a traditional Chinese garden, but is about new possibility of expressing the same cultural identity in modern construction. Bing Zhao, who is a former student of Feng and now an architectural professor at Wuhan University in China, wrote that the contemporary steel structures were combined with the imagery of traditional architecture. Zhao Bing used the word “imagery” to describe the intangible association inscribed to physical space that was aroused when people see the entrance gate. This intangible aspect is deeply rooted in the collective memory people have of architectural forms. While acknowledging and respecting that, Feng continues to fused this shared imagery with contemporary construction as to give new life to a fundamental Chinese architecture typology.

Like the north entrance gate, the east entrance gate has a similar design of the roof and main structures (Figure 2.3.1.8). The east entrance gate is where automobiles could access the park: opposite to the gate is a parking lot. Hence to place a soft boundary between the traffic on the streets and the interior of the park, Feng designed a rectangular pond on the south of the entrance gate (Figure 2.3.1.7). Another design element

---

Feng, *With the Old Becomes the New*, 175.
Figure 2.3.1.3
Construction drawings of the north entrance gate.
Source: Feng, 2010, p44.

The drawings illustrate the design of the shifting roof planes and the steel frame structures. The form of roof is straight and boxy instead of curvilinear which is common in traditional Chinese roofs. However, the staggered roofs resemble the elevation of a hip-and-gable roof (Figure 2.3.1.5). A contemporary steel frame replaces the traditional wood frame. The new steel frame structure follows the original hierarchy of the structural system (Figure 2.3.1.4).
Figure 2.3.1.4 (top) and Figure 2.3.1.5 (bottom)
Section drawing (top) and front elevation (bottom) of the Foguang Temple in Wutai, Shanxi Province, China.
Source: Google Image.

The temple features a traditional hip-and-gable roof in Chinese architecture. The section shows the traditional wood frames with brackets supporting the roof.
The painted suspended steel frames beneath the eaves of the roof show a sense of lightness and movement. The diagonal joints of the steel frames have become ornamentation for the roof of the entrance gate.
Figure 2.3.1.7
Photograph of the east entrance gate.

The photograph shows the pond on the south and the parking lot opposite to the gate. To the north of the gate, there is a free “festoon gate” which guides visitors to move northward.
Figure 2.3.1.8
Photograph shows the details of the steel structure supporting the gate roof at the east entrance.
Figure 2.3.1.9
Photograph of the “festoon gate”.

The new “festoon gate” is a hybridization of the welded steel frame structure with the traditional Chinese tiled roof with a moon gate in the middle.
Figure 2.3.1.10
Drawing of a traditional Chinese courtyard in Beijing, China.

The part that is highlighted in red is the festoon gate, which is usually attached to the inner wall of a courtyard house.
around the east entrance gate is an altered festoon gate which directs visitors to the path of the stone-cut roads (Figure 2.3.1.9). The festoon gate is an important element in a traditional Chinese courtyard: it is a secondary threshold separating the more open front yard with the private back yard (Figure 2.3.1.10). Referring to the role of the festoon gate in the organization of architecture system of a courtyard house, Feng used the festoon gate as an independent element to separate the “front yard”, which consists of the east entrance gate and the parking lot, from the inner park space. The festoon gate is known for its highly decorated hanging eaves. Using a contemporary structural logic, Feng preserved the original architectural feature of a festoon gate through expression of structures as well as references to traditional elementary forms such as the circular moon gate and the traditional roof tiling with ornamentations.

The Bamboo Pavilion

The Bamboo Pavilion is another important new structure that Feng designed in the park (Figure 2.3.1.11). The scale of the pavilion was proposed to be equivalent to the Temple of the Queen of Heaven, to create another point of focus in the park: the platform where the pavilion sat on had the same surface area as the base for the Temple of the Queen of Heaven.

The overall form of the pavilion was inspired by vernacular farm houses found around the site in the region of Songjiang (Figure 2.3.1.12). The roof curvature was similar to a traditional hip-and-gable roof: the ridge and hips were made into deep curved profiles (Figure 2.3.1.13). Thatch was used as the roof material. Besides tiled roof, thatch used to be a prevalent roofing material in the region but is rarely seen now.
Figure 2.3.1.11
Photograph of the entrance to the bamboo pavilion with curved brick walls. Source: Author, 2017.

The thatched roof was used to remind visitors of a collective memory of using thatch as a local material around the region.
The curved hips and tilted eaves of the roof are common features among the farm houses in the Songjiang Region of Shanghai.
2.3.1.13
Side and front elevations of the bamboo pavilion.
Source: Feng, 2010, p83.

The roof of the pavilion modifies the traditional hip-and-gable roof (Figure 2.3.1.5), which features a triangular shape on the side elevation, with intentional curvatures at the hips and the central ridge.
By choosing to use thatch, Feng wanted to reconnect to the collective memory of this material. The rest of the pavilion design according to Feng, is completely “contemporary”. One of the main concepts for the pavilion is to create a sense of continuous movement in the space. Feng referred to the Barcelona Pavilion by Ludwig Mies van der Rohe, especially learned from the active experience achieved through a labyrinthine journey through translucent and opaque surfaces in space, while his approach was a bit different. Feng attempted to achieve a sense of movement by acknowledging and integrating the circulation through the pavilion into the landscape and using curvature as a powerful tool to evoke sensual qualities, including the shifted platforms towards different points of views of the site and the curved walls around the pavilion (Figure 2.3.1.16). The exterior articulation of curved roofs was part of the design to evoke a sense of dynamic instead of straight lines. The innovative use of an exposed bamboo structure inside the curved deep roof also opened the interior to the surrounding landscape (Figure 2.3.1.14). Feng painted the joints black and the rest of the bamboo structures white to visually disconnect the structural system from the joints and break them into individual floating pieces: black would disappear in the shades of the roof while the white would stand out.

The Stone-cut Road

The stone cut road guides visitors coming from the east entrance gate toward the Temple of the Queen of Heaven on the way to the central plaza of the Square Pagoda.

65 Feng, *With the Old Becomes the New*, 80.
Figure 2.3.1.14
Sections of the bamboo pavilion.
Source: Feng, 2010, p84.
The joints were painted in black while the rest of the bamboo structures were painted in white. The decision was made to diminish the sense of stabilization and to break down the sense of continuity. In this way, the dense structures of bamboo inside the pavilion could appear more fragmented and lighter.
Figure 2.3.1.16
Sketch for the bamboo pavilion.
Source: Feng, 2010, 82.

The sketch shows three rotations of the platform, respectively in 30°, 60°, and 120° with the fixed pavilion as a layer of reference, which creates a circulation with shifted views and rich experiences with the landscape.
The intent of the stone-cut road is first to hide the old factory buildings to the north of the park. The second is to obscure the sense of actual height of the pagoda and the perceptions of the pagoda as one approaches from far to close by changing the width, depth, and height of the road constantly.

Feng learned this from another traditional Chinese garden in the same region, called Jichang Garden, where a secret passage was created by compiling and carving artificial rocks. Feng abstracted the complicated irregular textures of the stones and integrated the original spatial qualities of the winding passage above a stream into the new design: regularly cut large stones were used, occasionally some of the stones would protrude out in different distances from the surface to represent the unevenness and bumpiness abstractly.

---

66 Feng, *With the Old Becomes the New*, 135.
Figure 2.3.2.1 (top) and Figure 2.3.2.2 (bottom)
Top image shows the stone-cut-road connecting the east entrance to the Temple of the Queen of Heaven. Bottom image shows the surface articulation of the stone.
Artificial rocks in a traditional Chinese garden, Jichang Garden in Wuxi, Jiangsu Province, China.
Source: Author, 2013.

Artificial rocks are carved to create a secret in-between passage through a stream of water.
3. The Critical Path of Contemporary Design in Historic Settings

At the beginning, I asked whether contemporary design in historic settings a preservation issue or a design issue. My answer to that question is it has to be both. The three strategies I illustrated through case studies are my personal synthesis of how to balance the dichotomy between strict preservation and strict differentiation, and how to reestablish the connections between the old and the new. There is simply no easy or a singular answer to what we should change and make because new intervention in historic setting is both about creativity and preservation. “The backward glance transforms,” as the classical architect John Barrington Bayley reminded us, and therefore the architecture of the Renaissance is not simply a revival of Roman architecture, but a new creation inspired by the ancient models.67

The critical path is built upon a new position on contemporary design in historic settings which include: to balance the dichotomy between “strict preservation” - nostalgia for the perfection of the past – and “strict differentiation” – alien promises for the future and to reestablish the inherent connection between the old and the new. The critical path includes two actions: realigning contemporary design with preservation and redefining “newness”.

3.1 Realigning Contemporary Design with Preservation

By realigning new design and preservation, we could create new designs that counter the meaningless and placeless “novelty” and address the cultural richness and

---

complexity we should be attending to, referring to Semes’s argument:

the principle proposed here is that neither preservation nor design can afford to look upon any given site as a blank canvas but must always look to the larger whole of which any individual building site is a part. Moreover, they must not look upon that whole as raw material to be mined or transformed; nor should they see it as sacrosanct and unchanging, but as a setting deserving of respect and that with proper care and cultivation holds the long-term promise of beauty, suitability, and justice.\(^{68}\)

By aligning new design and preservation, we recognize and respect a preexisting reality – belonging, context, identity – that should be preserved even while being transformed, as Gregotti points out, “this reality takes the physical form of a geography whose cult of knowledge and whose interpretation provides the material to support the project.”\(^ {69}\) Once we align design with preservation, new interventions could be seen as modification of the context which places a renewed importance on the present with historical depth.

### 3.2 Redefining “Newness”

Echoing Alvaro Siza’s aphorism that “architects don’t invent anything, they transform reality,” the process of making new is a process of renewing. We give something from the past a future by transmitting it across the existential gap of the present. Groys has pointed out:

the quest for the new is generally associated with utopia as well as with hopes for a new beginning in history and a radical transformation of the conditions of human existence in the future. It is precisely this hope which seems, today,

---

\(^{68}\) Semes, *The Future of the Past*, 36.

to have almost completely disappeared. The future no longer seems to promise
anything fundamental new; instead, we imagine endless variations on what
already exists.\textsuperscript{70}

Redefining “newness” underlines the fact that historic buildings and districts are living
entities that are open to new interpretations and changes. They not only can grow and
accommodate change without losing the character that qualified them for preservation but
can also provide models for new works in other places and times.

\textsuperscript{70} Groys, \textit{On the New}, 2.
Bibliography


Index

A
“Architectural presentation of history” 22, 23, 29, 30
Authentic/Authenticity 1, 7, 24, 26, 39, 49
Avant-garde 18, 21

B
Barnes Foundation at Benjamin Franklin Parkway, Philadelphia, PA, U.S. 28, 68-81
Bernini, Gian Lorenzo 5
Bloszies, Charles 4, 5, 16, 17, 20
Boito, Camillo 18, 19, 39
Bollack, Francoise Astorg 5, 7, 8, 20, 21, 31
Bramante, Donato 5
Breuer, Marcel, Grand Central Terminal Proposal 9, 10
Byard, Paul Spencer 6, 10, 20, 29, 30

C
Carson, Rachel 8
Castelvecchio, Verona, Italy 28, 30, 31, 33, 34, 35, 39, 41, 55
The Conservation Ethic 7, 9, 20, 29, 30, 43
Continuity 1, 21, 22, 69
Continuity in differentiation 23, 24, 25, 68
Contemporary design in historic settings 1, 4, 5, 9, 22, 107,
Content 22, 25, 43, 47, 68, 69
Context 8, 9, 15, 16, 20, 22, 23, 25, 26, 27, 29, 31, 68, 69, 71, 80, 83, 85, 108

D
Dichotomy 15, 19, 21, 107
Differentiation 15, 21, 22, 23, 24, 25, 42, 68, 84, 107

E
Eastern State Penitentiary, Philadelphia, PA, U.S. 2
“Exhibiting history” 51
Elbphilharmonie Concert Hall in Hamburg, Germany, Herzog de Meuron 10, 11

F
Feng, Jizhong 28, 30, 51, 53, 54, 55-58, 63-65, 85, 88-89, 96, 99-104
Foster, Norman 9

G
Gregotti, Vittorio 1, 18, 25, 27, 83, 84, 108

H

112
Harvard art Museum Renovation and Expansion, Boston, MA, U.S. 3, 9
Hearst Tower in New York 9, 10, 12
“A hybridized future” 83, 84, 85

I
Inger and Johannes Exner Architects 28, 30
Integrity 21, 24, 25
“Interpretation instead of replication” 69
“Internalization of content” 22, 68

J
Jacob, Jane 8

K
Koldinghus, Western Denmark 28, 30, 41, 43, 44-52

L
Lowenthal, David 5, 7
Los, Sergio 31-33, 40, 41, 68,

M
Maderno, Carlo 5
Magagnato, Lcisco 30, 31
McCarter, Robert 30, 35, 39,
Michelangelo, Buonarotti 5
Modify/Modification 1, 22, 27, 83, 84, 108
Morris, William 1, 18
Murphy, Richard 34, 25, 37-39,

P
Port house in Antwerp, Belgium, Zaha Hadid Architects 10, 13
Preservation movement in the United States 9
Preservation theories development:
   English School 18, 19
   French School 18, 19
   Italian School 18

R
Regionalism and critical regionalism 1, 8, 26,
Ruskin, John 18

S
Saint Peter’s Church in the Vatican City 5, 6
Scarpa, Carlo 19, 28, 30-41, 45, 55, 68
Semes, W. Steven 7, 9, 15, 19, 20, 21, 27, 29, 30, 84, 108
Sense of belonging 22, 23
Sense of place 23
“Spatial joints” 39, 40, 45
Square Pagoda Park, Songjiang, Shanghai, China 28, 30, 51, 53, 64, 84, 85, 87
“Strict differentiation” 15, 21, 25, 68, 107
“Strict preservation” 2, 4,

T
“Technical representation of history” 41
Tradition 27
Tod William and Billie Tsien Architects 9, 14, 28, 68-69

V
Venturi, Robert 8,
Viollet-le-Duc, Eugene 18
“Visualizing history” 30, 55