

**Inhabiting Memory and Experience:**  
**INTERIOR HISTORIC PRESERVATION**

BY

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A Practicum  
Submitted to the Faculty of Graduate Studies  
In Partial Fulfillment of the Requirements for the Degree of

MASTER OF INTERIOR DESIGN

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University of Manitoba  
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**Inhabiting Memory and Experience:  
INTERIOR HISTORIC PRESERVATION**

**BY**

**Brianne S. Caron**

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of  
Manitoba in partial fulfillment of the requirement of the degree  
Of  
Master of Interior Design**

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## **A c k n o w l e d g e m e n t s**

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### **A b s t r a c t**

Historic interior environments are records of socio-cultural change, manifest by the physical accruals of time. Design intervention of historic artifacts or interior environments employs disciplinary techniques and methods determined to be an appropriate degree of intervention for the preservation of the physical artifact and subsequently, the preservation of the history borne by the artifact which gave its constituent original meaning. The corresponding techniques and methods of design intervention are subject to evaluative criteria for determining the appropriate type and degree of intervention relative to both physical and historic significance. The determinant of the degree of intervention will be to reconcile the heritage value of the interior dimension with economic viability, contemporary standards of design, and new purpose. This study will focus on an interior environment in a designated historic building. The inquiry process - literature review, conjectural analysis, case study, and content analysis, is intended to establish a theoretical framework for the historic preservation of interior environments in historic buildings. Subsequently, the demonstration site for this practicum will be the Salvation Army Citadel located at 221 Rupert Avenue in the historic Exchange District, Winnipeg, Manitoba, Canada. The design proposal will demonstrate how a contemporary programme can be adopted within a heritage building and preserve its intrinsic value as a historical record.

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## **1. Introduction**

### **Statement of Intent**

There exists a broad scope of information and knowledge with respect to the significance, history, and methods of design intervention for the preservation of historic artifact. Subsequently, the scope of information for preserving interior resource types is unsubstantiated. The interior dimension is a record of socio-cultural activity and historical continuity. These interior resources continue to be at risk and require established sensitive practices and techniques as defined in ethical frameworks; in compliance with existing standards and guidelines for their integration within historic buildings. The focus of this practicum will be an examination of interior intervention within historic buildings. In that, design intervention will demonstrate how a contemporary programme can be adopted to a historic interior; preserving an archive of social event as evidenced in material derived from cultural activity.

### **Project Description**

The foundation of historic preservation as a movement in North America is primarily a twentieth-century concept; borne by socio-cultural identity and economic development (Fitch, 1990). The practice of historic preservation is broadly characterized as "the curatorial management of the built environment" (Fitch, p. 84). Within the scope of the preservation of historic buildings, interiors are progressively achieving greater significance. However, development is gradual. The mutable<sup>1</sup> quality of the interior lends to a tenuous relationship within historic buildings, forcing the value of research and documentation of historic interiors and related issues (Racine, 2001). The interior can be

---

<sup>1</sup> As a result of use and material deterioration, change is inherent within the interior. Despite the mutable quality of the interior, continuity of architectural form, use, features, or material may be retained.

more significant in conveying a building's history and development over time as a record of socio-cultural activity. In that, memory is a record of the temporal dimension, and thus characterizes the temporal within the interior spatial dimension of time. Given the extensive scope of historic preservation and the corresponding requirement for research within interior preservation; the focus of this practicum is limited to interior environments in historic buildings in Winnipeg, Manitoba, Canada. The Salvation Army Citadel, located in the Exchange District at Rupert Avenue and King Street, will form the context for design intervention. This practicum will establish a shift beyond the twentieth-century scope of historic preservation theory which accepts a conservative framework; counter to the viability of adapting a contemporary programme to a historic interior environment. The appropriate type and degree of design intervention will be determined relative to both physical and interior historic significance. Theorizing within the historic interior dimension by integrating analytic procedures and disciplinary techniques will force the re-evaluation of historic preservation as a comprehensive approach to historic buildings.

### **The Role of the Interior Within the Movement of Historic Preservation**

The development of historic preservation as a movement in North America is essential to understanding the interior and its current role within the scope of historic preservation. Documentation relative to an interior preservation movement is nonexistent. By tracing key events and interpreting issues inherent to the growth of historic preservation, a background is established relative to interior preservation theory, principles, and practice.

Historic preservation was first recognized as an activity in early nineteenth century America (Murtagh, 1997). Supported by the private sector, women assumed the primary role of accrual and management of historic properties (Murtagh). The public sector



conversely advocated natural area conservation; undervaluing the protection of historic buildings. Properties identified of heritage value and established as individual landmarks retained patriotic, pietistic, and historic significance (Tyler, 2000). Properties inconsistent with these values were disregarded and unpreserved.

Subsequently, the primary form of preservation was established through the historic house museum (Murtagh, 1997). The historic house museum is essentially “a museum whose structure itself is of historical or architectural significance and whose interpretation relates primarily to the building’s architecture, furnishings and history” (Murtagh, p. 78). Through the macro micro context of the historic house museum; such as, the house museum and subsequent historic room, object, and collection of objects, the notion of landmark as artifact is articulated (Murtagh). Therefore, historic room settings and installations demonstrated relationships amongst objects and material culture which were recognized in terms of educational value and which legitimized the decorative arts (Murtagh). However, the historic framework was limited to public interior environments, where preservation practices did not include the private interior (Seale, 1981). Consequently, the house and its interior were acknowledged only through the historic house museum, conceptualized as a representational moment in time; determining association of the historic interior to the decorative arts and curatorial practice.

The 20<sup>th</sup> century was defined by a significant period of growth in preservation objectives. Aesthetics and architectural preservation became relevant; attributed to the loss of architecturally significant<sup>2</sup> buildings and the establishment of regional preservation organizations (Murtagh, 1997). In addition to historic association, buildings became recognized for their intrinsic value. In reaction to the curatorial philosophy and replication

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<sup>2</sup> Architectural significance is characterized by distinctive features of type, period, and method of construction, or which represents a significant and distinguishable entity whose components may lack individual distinction.

of the nineteenth century, *The Decoration of Houses* was published in 1897, recognized as shifting the approach to interior historic preservation (Murtagh). In that, Wharton and Codman grounded preservation practice in historic precedent, challenged preservation practice which regarded historic architecture with no acknowledgement of the interior; legitimizing interior preservation.

Through the 1930s, historic preservation grew beyond the scope of the traditional historic house museum to include neighborhood and environmental planning (Murtagh, 1997). Where, the broadened focus of the movement was attributed to an increased role at the government level. The post World War II period gave rise to mass manufacture, technological evolution, and modern architecture<sup>3</sup>, offsetting the need for preservation initiatives (Tyler, 2000). Subsequently, architectural and environmental preservation grew in significance as a result of urban renewal in the 1960s (Tyler). An academic foundation through research and degree programmes was later established; previously nonexistent (Murtagh). However, academic foundation relative to interior historic preservation continued to be characterized by the decorative arts. By the 1980s, a formal relationship was established between preservation and natural area conservation (National Trust for Historic Preservation, 1981). Future preservation initiatives are anticipated to eliminate any distinctions between the built and natural environment. Current preservation practices acknowledge the significance of 20<sup>th</sup>-century architecture<sup>4</sup>. However, historic preservation today is less determined by preservation of historic artifact, guided primarily by process and methodology; legally, politically, technically, and economically (Murtagh). Interior

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<sup>3</sup> Modernism was the prevalent theoretical orientation within architecture from the 1920s through the 1960s. Modernism, also known as the International or Modern style, was a transnational development, devoid of historical references; expressing no other period other than its own. The basic tenets of modernism were function and utility, sculptural form, and reliance on the use of modern materials and emerging technologies.

<sup>4</sup> Contemporary preservation practices are challenged by issues of adaptability. Where, modern buildings were designed for a specific programme less adaptable to new use, reinforcing the need for sensitive preservation practice.

environments in historic buildings are therefore often compromised, due to these factors and lack of public funding.

As the preservation movement's foundation has continued to broaden, preservation has grown to become a highly interdisciplinary activity (Murtagh). Subsequently, the assimilation of differing viewpoints has contributed to the lack of definition, clarity, and role of interior historic preservation which exists today.

### **Benefits of Historic Preservation**

#### *Cultural Significance*

Interior historic preservation promotes the significance, protection and interpretation of cultural-historic artifact (Manitoba Culture, Heritage and Citizenship). As cultural resources are non-renewable and irreplaceable, Manitoba's heritage resources are protected and monitored under the *Heritage Resources Act* to ensure changes made to a structure comply with its architectural and historic character (Manitoba Culture, Heritage and Tourism, 2002). Subsequently, changes made within the interior are more compliant with respect to adaptive reuse, resulting in loss of interior historic character and socio-cultural significance. *Manitoba Culture, Heritage and Citizenship* acknowledges interior cultural resource as a primary source of historic information and cultural identity (1996). In that, historic interior environments are records of socio-cultural activity as evidenced in authentic material, form and salient characteristics and history borne by interior artifact. The U. S. Department of the Interior in, *The Secretary of the Interior's Standards for the Treatment of Historic Properties* identifies the practice by which "assessing an interior as a continuum through history is critical in understanding its cultural and historic value" (p. 11, 2000). Through acknowledgement of cultural significance, the value of the interior within the scope of historic preservation is established.

### *Economic Development*

The historic and socio-cultural value of preserving historic artifact exceeds direct economic benefits. However, identified or designated historic districts revitalize and rehabilitate surrounding areas, encouraging economic development (Williams et al., 1984). As of 1999, 283 sites have been protected and designated under Manitoba legislation (Manitoba Culture, Heritage and Tourism, 2002). The economic feasibility and commitment to the city's vitality have been clearly demonstrated through the efforts of local associations and government commitment to historic preservation.

### *Educational Opportunities*

The perception with respect to interior intervention is that 'the art of interior design is undervalued' (Abercrombie, 1994). Initiatives do not integrate the interior, perceived as disposable (Abercrombie). As the interior is associated with events, people and use, the socio-cultural history ascribed to the interior becomes didactic. Connerton in, *How Societies Remember*, verifies that "our images of the past commonly serve to legitimate a present social order" (1989, p. 3). Design intervention, new techniques and practices allow the historic interior to be viewed within the context of other related interiors (U. S. Department of the Interior, 2000). Research with respect to the historic interior establishes the development for a theoretical framework for a consistent and inclusive approach to interior preservation.

## Degrees of Intervention

*An historic building is one that gives us a sense of wonder and makes us want to know more about the people and culture that produced it. It has architectural, aesthetic, historic, documentary, archaeological, economic, social and even political and spiritual or symbolic values; but the first impact is always emotional, for it is a symbol of our cultural identity and continuity – a part of our heritage. (Feilden, 1994, p. 1)*

Historic resources are physical artifacts as well as places of involvement (Tyler, 2000). The purpose of historic preservation is to mediate sensitively with the interior and its physical and non-physical associational counterpart; 'enhancing the messages and values of cultural property' (Feilden). In the *Conservation of Historic Buildings*, Feilden identifies values ascribed to historic artifact essential to determining the appropriate degree of design intervention:

- (1) *Emotional values*: (a) wonder; (b) identity; (c) continuity; (d) spiritual and symbolic.
- (2) *Cultural values*: (a) documentary; (b) historic; (c) archaeological, age and scarcity; (d) aesthetic and symbolic; (e) architectural; (f) townscape, landscape and ecological; (g) technological and scientific.
- (3) *Use values*: (a) functional; (b) economic; (c) social; (d) political and ethnic. (p. 6)

Subsequently, historic preservation is largely defined through activity (Tyler, 2000). These activities or varying degrees of intervention are characterized by several approaches within the scope of historic preservation (Tyler). Although the word preservation is used to describe a specific degree of intervention, the field of historic preservation refers to these varying degrees and forms of preservation. In the *Dictionary of Building Preservation*, the scope of historic preservation is defined with reference to several departures:

The process of protection and enhancement of historic and heritage sites, structures, buildings, and objects through a broad range of physical and intellectual methods, including conservation, interpretation, maintenance, reconstruction, restoration, and stabilization, as well as legal, financial, political, and educational means. (Bucher, 1996, p. 355)

Historic interior environments are characteristically multi-layered, manifesting numerous stages, alterations, and adaptations of use in time (Jokilehto, 1999). It is therefore essential

to value all degrees of preservation prior to design intervention. In that, several degrees of intervention may be used concurrently within various constituents of the interior environment; intervening through varying scales and varying degrees of integrity (Feilden). By addressing interdependent constituents of the whole independently, interior temporal significance is preserved. As historic preservation is characterized by several salient forms of design intervention, key forms of intervention will be defined; specifically, preservation, restoration, and reconstruction. These forms of intervention will be described from the greatest degree of intervention and retention of historic fabric to the least degree of intervention and extent of retention.

### *Preservation*

Historic preservation is the strictest form of intervention; preserving the form and integrity of interior environment without significant alteration to its existing condition (Parks Canada, 2003). Although the objective of preservation is the greatest retention of original interior historic fabric, it does not provide for ease and viability of adapting a contemporary programme: "Strict preservation is the more pessimistic view. It considers any reconstruction as fraudulent and thinks of time as a process of regrettable but inevitable dissolution" (Lynch, 1972, p. 35). Historic interiors which retain a great degree of significance, meaning and identity, can however, be preserved through a revisionist approach. Within a preservation framework, additions can be legitimized as new segments in history (Jokilehto, 1999). Where, new segments in history are introduced through selective change; in that, a selective additive and subtractive process within an interior environment allows adaptation of a contemporary programme with significant retention of interior historic artifact.

Preservation is characterized as a stringent form of intervention. However, preservation is also characterized by accepting change in time (Tyler, 2000).

In that, the existing cumulative state of the interior fabric is acknowledged, the total historic record in time is preserved and protected (Bucher, 1996). Therefore, contrary to restoration and reconstruction, reversal and removal of historic artifact is unsubstantiated (Aplin, 2002). As per the *Standards*: "Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved" (Morton et al., 1997, vii). Change as documentary physical evidence conveys historic association. Retention of these successive changes is subsequently significant to design intervention, establishing a dialogue between historic and contemporary elements:

The exposure of successive eras of history and the insertion of new material that enhanced the past by allusion and contrast would be encouraged, the aim being to produce a setting more and more densely packed with references to the stream of time rather than a setting that never changed. (Lynch, 1972, p. 236)

Interior intervention is essential to the discovery of unanticipated relationships and historic recall. A revisionist view of preservation facilitates the introduction of new material through design intervention, concurrently allowing insignificant historic elements within the whole of interior artifact to be forgotten or unpreserved. By enlarging the scope of preservation to include adaptive change, the interior becomes a layered artifact in time.

### *Restoration*

*To restore an edifice means neither to maintain it, nor to repair it, nor to rebuild it; it means to reestablish it in a finished state, which may in fact never have actually existed at any given time. (Viollet-le-Duc, 1990, p. 195)*

Viollet-le-Duc<sup>5</sup> established a restoration strategy termed 'authentic restoration'; where historic artifacts are restored according to as they 'should have been' (Tyler, 2000).

'Authentic restoration' is however effectively inauthentic, as the addition of new elements are not substantiated by historic evidence. Therefore, the addition of contemporary

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<sup>5</sup> Viollet-le-Duc was one of the earliest precursors of restoration philosophy. Viollet-le-Duc's argument of 'authentic restoration' is essential to establishing a foundation and background of restoration as one of the primary forms of intervention.

elements in time is not regarded as authentic; a contrived and false historic record is created, with lack of consideration of the original. Viollet-le-Duc's restoration methods have subsequently become disrepute (Tyler). 'Authentic restoration' does however establish that all forms of intervention require substantiation through historic evidence. As restoration is determined by an individual timeframe, the total temporal dimension of time is not retained.

Countering Viollet-le-Duc's theory of authentic restoration', Ruskin<sup>6</sup> in *The Seven Lamps of Architecture* rejects the notion of restoring historic artifact to a former period in time:

It means the total destruction which a building can suffer: a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed. Do not let us deceive ourselves in this important matter; it is *impossible*, as impossible to raise the dead, to restore anything that has ever been great or beautiful in architecture. (1909, p. 269)

Restoration is characterized as synonymous with erasing the cumulative character of time and therefore the validity of historic authenticity. This view is significant where the historic record in time is necessary in defining the character of interior historic artifact.

In the present context, restoration refers to restoring the existing fabric of historic artifact to a known and established earlier state within the historic record (Aplin, 2002). Restoration is achieved through varying degrees of intervention; where these measures include replacement or removing accretions and subsequent additions to historic artifact (Bucher). As stipulated by the *Standards*: "Restoration involves revealing, recovering, or representing the state of a historic place or of an individual component, as it appeared at a particular period in its history, as accurately as possible, while protecting its heritage value" (Parks Canada, 2003, p. 23). Historic artifact is therefore returned to its primary period of historic

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<sup>6</sup> John Ruskin is one of the earliest recognized restoration philosophers and is essential within this argument as proposing a viewpoint in opposition to that of Viollet-le-Duc's.



significance and aesthetic integrity (Bucher, 1996). Feilden refers to this state as the 'original concept' or 'legibility of the object' (1994). However, the viability with respect to restoration is the process of 'accurately' revealing. Accuracy can only be achieved through substantive historical evidence, which must exceed the value of potential loss of existing historic fabric (Parks Canada). An individual period in time therefore defines the authentic character of a restored historic artifact, where value is determined in relationship to the most significant period in time.

### *Reconstruction*

The act of reconstruction is synonymous with restoration, where the notion of authenticity is debatable. Reconstruction also necessitates historically verifiable and accurate documentation, as in historic restoration (Feilden, 1994). Bucher defines reconstruction as the following: "The process of duplicating the original materials, form, and appearance of a vanished building or structure at a particular historical moment based on historical research" (1996, p. 376). Reconstruction is achieved using replicated design through introduction of new materials within the interior fabric (Feilden). As an additive process, reconstructed artifacts subsequently cannot bear or retain the patina of age.

Existing documentation and comprehensive historic evidence of historic artifact may lend or contribute to an authentic reconstruction. However, an accurate replication of the original does not characterize historic authenticity: "Mere reconstruction avoids the complexity of time by replicating a destroyed object and thus pretending a continuous existence" (Schultz, 2000, p. 50). Therefore, reconstruction based on conjectural evidence does not characterize authenticity (Tyler, 2000). Ruskin, an antagonist of historic reconstruction, reiterates this notion: "And as for direct and simple copying, it is palpably impossible" (1909, p. 269). Reconstruction is a form of intervention which is substantiated when historic artifact no longer exists; necessitating physical extension of the original for

contextual, political, or socio-cultural purposes (Tyler). Lynch describes this extension as a continuum of memory: "Rebuilding becomes historical reconstruction, the re-creation of the memory image" (1972, p. 195). The significance of reconstruction is substantiated where the recovery of the historic artifact is vital to establishing cultural identity; notwithstanding the artifact borne through reconstruction is an image or illusory representation of memory and social event; a manifestation of the original. Thus, reconstruction is acceptable when used to sustain historic artifact recurrently through time, and is further viable when replicating partial elements within the whole (Lynch). Given that reconstruction is deemed as the greatest degree of intervention causing the greatest disturbance of the historic interior fabric, reconstruction is a viable form of intervention where true authenticity is not required.

### *Factors in Selecting Intervention*

The previous section has described three primary forms of intervention within historic preservation theory. However, the selection of an intervention type must coincide with several associative factors. The U.S. Department of the Interior has developed *Standards for the Treatment of Historic Properties with Guidelines for the Preservation, Rehabilitation, Restoration, and Reconstruction of Historic Furnished Interiors*. Given the focus<sup>7</sup> of the *Standards*, it is possible to identify specific values in determining an intervention strategy.

A historic structure report<sup>8</sup> - an investigative assessment and record of analysis of a building's interior history, is the primary basis from which to determine an intervention strategy. Factors identified within a historic structure report which provide a theoretical framework from which to provide basis for strategy, are a building's socio-cultural history, use, analysis of occupancies, construction history, history of interior architectural features and finishes, context analysis, and significance in context of other related interiors (U.S. Department of the Interior, 2000). Further, a building analysis, an assessment of a building's existing interior condition, is also conducted in order to identify retention of character-defining elements, deterioration, and structural issues. However, ascribing value to these salient factors is dependent on several variables (U.S. Department of the Interior):

- *change and continuity*: as interiors are characterized by a high degree of change; degree in continuity of form, use, features and materials, is critical to identification of an appropriate degree of intervention.

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<sup>7</sup> The focus of the *Standards* is the preservation of historic furnished interiors. A historic furnished interior is defined as a collection of architectural features, finishes, and site-associated or site-appropriate furnishings organized in space inside a historic building. Although the *Standards* are founded in curatorial aspects of furnishings and their changeable nature within a historic interior environment; guiding concepts, themes and issues are applicable to this discussion.

<sup>8</sup> Historical research is commonly composed as a historic structure report. Through compiling a description of a building's history and current condition, a foundation for an intervention strategy is established.

- *integrity and existing physical condition:* the interrelationship of integrity and condition is significant in that, an interior may retain its integrity and be retained in poor condition and conversely, may remain in good condition and retain poor integrity.
- *use:* a historic interior environment is often adapted to a contemporary use. However, a contemporary use should be measured relative to being adaptable to a historic interior environment.

An additional variable in determining an intervention type is the value of ascribing significance to a specific period in time within a building's interior chronological history. Interior historic environments should only be restored or reconstructed in the context of curatorial purpose; representing a specific event, time, person, or place. Within the context of adapting a contemporary use to a historic interior environment, the total chronological record should be respected. In that, interior intervention is determined relative to the total historic record rather than an independent moment in time. Consequently, as all historic interiors are distinct in character and historical background, it is not viable to establish a pre-determined fixed set of guidelines or methodological framework from which an intervention strategy may be established. By working from the values identified within the philosophical framework of an interior historical analysis; an intervention strategy is developed.

This section has described guiding factors in determining the appropriate type and degree of intervention. Historic intervention, which refers to the basic forms of preservation, restoration, and reconstruction, define authenticity in varying degree. The following section will further describe the culture of authenticity relative to these forms of intervention, and their role within interior historic preservation.

### **The Culture of Authenticity**

*The authenticity of a thing is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced. (Benjamin, 1968, p. 223)*

As described by Benjamin, the notion of authenticity is valued as either the total effect of change through time or the value of the original historic artifact. Within a preservation context, the total effect of time is valued. However within a restoration context, the significance of the original historic artifact is valued, or the period in time as ascribed as the original. Authenticity within a restoration context is the total or partial replication of the original or replication of the total effect of time; where true authenticity does not exist. Jukka Jokilehto, in *A History of Architectural Conservation*, refers to authenticity as “acting autonomously, having authority, being original, unique, sincere, true, or genuine” (1999, p. 296). Authenticity is essential to the value of historic artifact as true documentary evidence of the past. Correspondingly, the value of historic preservation is subject to the degree to which a heritage source is true or authentic (Jokilehto). Authenticity is thus a relative concept; determined in relation to ascribed and accrued value (Jones, 1991). These historically significant values upon which authenticity is contingent include physical, aesthetic, educational, historic or socio-cultural aspects (Jokilehto). Conversely, authenticity is also determined by artificiality, imitation, and inauthenticity (Orvell, 1989). Within historic interior environments, authenticity is often represented by several differing time periods due to the changeable nature of interior use. Selective authenticity is therefore required where several intervention types; preservation, restoration, and reconstruction, are concurrently used, in order to retain the highest degree of authenticity articulated within the interior historic fabric. The ruin, which is a construct of the original through the duration of time, manifests total authenticity.

### *The Ruin*

*Though the landscape should have the imprint of human events and seem connected with living persons, the imprints and connections must eventually fade away and be forgotten, just as human memories and generations fade. (Lynch, 1972, p. 63)*

The ruin is impermanent, a trace of unplanned decay where the passage of time transcends the original (Jones, 1991). Hetzler in *Causality: Ruin Time and Ruins* defines the ruin as "the disjunctive product of the intrusion of nature upon an edifice without loss of the unity produced by the human builders" (1988, p. 51). Historically, notions of the romantic and the sublime have been central in defining the ruin (Gelernter, 1995). Where, an individual's interpretation of historic artifact is emphasized through associations to the past and subsequent historic recall, memory, and imaginative reconstruction (Harbison, 1991). The basis of ruin theory is therefore the formation of a record of past socio-cultural events existing in the present; where the physical ruin and its non-physical associational counterpart will disappear in time.

Essential to the characterization of the ruin is 'ruin time' (Hetzler, 1988). Ruin time is defined as the construct of artifact, proceeded by an interval of neglect and discontinuity, and its subsequent renewal or termination; a return to origins (Jackson, 1980). Agents of decay include human or natural causes; however, deterioration commences at the outset of construction, which may be controlled by preservation. Ruins identified as monuments and of historic significance are often preserved, in which the role of ruin preservation is to 'arrest decay', to 'remove any accretion of structures', and to freeze material in the condition found (Thompson, 1981). Thus, to what extent does design intervention render the authentic of the ruin inauthentic?

Ruins sustain varying degrees of intervention; 'arrested', 'added to', or 'subtracted from' (Harbison, 1991). These varying degrees are described by Phillipot:

A ruin is normally considered the object to be preserved, not as a fragment of the object, since ruins themselves are cultural objects with their own specific emotional values and appeals to the imagination, which would be completely destroyed by an attempt to restore the ruin to its original state. (1996, p. 361)

An artifact becomes a ruin in time due to lack of intervention; restoring a ruin to its original conjectured condition renders the existing state of the ruin inauthentic<sup>9</sup>. Therefore, the ruin can be identified as an unintended manifestation of the temporal and environmental context; achieving new significance through time as an extension of the original, disappearing in time as traces of memory.

### *Interior Authenticity*

The notion of ruin has been defined as essential to understanding the nature of authenticity. However, the historic interior is not defined as a ruin. An uninhabited interior in an untouched state can be identified as an interior ruin; however, upon any form of design intervention, the interior can no longer be characterized as a ruin, embodying total authenticity. Subsequently, ruins within an exterior-environment context remain accessible. In a ruined state, interiors become uninhabitable and thus inaccessible; harbouring a secretive quality or character, becoming accessible only by memory. The notion of total authenticity within an interior context is therefore unattainable. However, through notions of tectonic integrity, degradation, and patina, it is possible to define elements of ruin significant to authentic interior preservation.

Jones defines tectonic authenticity as "the notion of truth to materials, structure and construction" (1991, p. 32). Tectonic authenticity essentially refers to integrity, which is used to identify significance of historic artifact. According to the *Dictionary of Building Preservation*, integrity is defined as "a measure of the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period in comparison with its unaltered state" (1996, p. 248). The preservation of physical characteristics is therefore indicative of the preservation

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<sup>9</sup> With the exception of ruins identified as historically significant monuments, the role of preservation is to prevent ruin from withstanding further loss.

of the history borne by the artifact. Interior integrity is reflected through either several or all of the following attributes: context, continuity, design, materials, function, and association (Murtagh, 1997). Context and continuity refer to total historic artifact.

### *Context*

The authenticity of a cultural resource refers to the 'importance of the whole' (Philippot, 1996). The whole is the total cultural resource, which integrates the interior, exterior, and context of the original historic artifact (Philippot). As the authenticity of historic artifact integrates context, removing artifact from its original context results in a loss of time, space, and place (Hetzler). The interior is therefore viably preserved in situ, described "in its original or proper site or position" (Bucher, 1996, p. 247). The historic room for example, an interior museum installation removed from its original environment, subsequently results in a loss of contextual experience (Murtagh, 1997). Historic rooms are collected as authentic settings with the purpose of ethically intervening where interiors cannot be preserved in situ<sup>10</sup>. However, the historic room conveys an illusion of historical accuracy, displayed conservatively through subjective interpretation, resulting in the appearance of a stage-set, unreflective of use (Jones, 1991). The preservation of interiors in situ is thus a paradoxical relationship. In that, measures to retain the interior may result in a less significant degree of authenticity, however the interior is preserved as interior artifact.

### *Patina*

Contemporary preservation practices concerned with documentation of a historic interior recognize material authenticity through the patina of age:

The contrast of old and new, the accumulated concentration of the most significant elements of the various periods gone by, even if they are only fragmentary

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<sup>10</sup> The historic room is epitomized through the American interiors of the *American Wing of the Metropolitan Museum of Art*, and the *Henry Francis du Pont Winterthur Museum*.



reminders of them, will in time produce a landscape whose depth no one period can equal. (Lynch, 1972, p. 57)

The patina is the effect or surface quality acquired through physical or chemical changes of an original material, produced through time (Philippot, 1996). The patina is also understood as a physical trace of the passage of time, which through latent meaning embodies the residue of historical events. The process of achieving the age of patina thus becomes equally as vital as its material counterpart (Mostafavi & Leatherbarrow, 1993). Within an interior historic preservation context, the process of achieving the patina is referred to as degradation, where the temporal nature of the degradation process is continuous, unending. Viollet-Le-Duc, in his dissertation, *Restoration*, in *The Foundations of Architecture: Selections from the Dictionnaire Raisonné*, acknowledges that this finished state of the interior is not definite or complete at any given time (1996). Interpretation of the interior in this context is subsequently relative to the total historic record in time.

According to Mostafavi and Leatherbarrow, the intended or unintended action of degradation as "deleterious consequences can be complemented by the potential value of sedimentation and the accumulation of detritus on a surface" (1993, p. 6). By definition, degradation is a subtractive process. However, through acknowledgement of interior patina, the action becomes additive, revealed by the physical deposit of residual marks. Attempt to achieve the notion of the original through removal of layers in time is an unattainable historic ideal, resulting in historic contradiction; removal of patina through the action of restoration will effectively reveal the present condition of the original material (Philippot). Subsequently, the patina may be anticipated and accepted as an inevitable occurrence, recognized for its interior aesthetic and historic value (Philippot). This significance of interior patina is characterized by the intervention of the *BAM Majestic Theatre*, Brooklyn, New York.

### *BAM Majestic Theatre*

The *Majestic Theatre* was built in 1904 by J.B. McElfatrick as a neighbourhood theatre and vaudeville house (Mackintosh, 1993). The structure subsequently housed a movie palace and a house of worship until its abandonment in 1968, upon which the interior fabric sustained degradation as a result of slow deterioration (Russell, 1991). In 1987, *Hardy Holzman Pfeiffer Associates*, historic preservation practitioners, intervened with an interior strategy of interpretive restoration for the renovation of the *Majestic Theatre* to house a performing arts hall for the *Brooklyn Academy of Music*.

*HHPA*<sup>11</sup> established a design intervention strategy defining themselves as 'anonymous facilitators', working with and stabilizing the interior degradation (Russell, 1991). Capturing the effect of time on interior space, the theatre is preserved in its discovered condition, effectively becoming frozen in time (see figure 1.1). Crumbling plasterwork, columns and arches are stabilized (see figure 1.2). Accumulated layers of paint and patina are retained on theatre walls and within the reception area (see figure 1.3). Exposed steelwork as a result of ceiling disintegration is fireproofed and left revealed (see figure 1.4). Viewing boxes are also retained in their discovered condition (see figure 1.5). Thus, the interior environment has essentially been referred to as a ruin (Murphy, 1993). However, it is not entirely a ruin - new design intervention is distressed with intent to replicate the existing patina creating 'images in themselves' (Mackintosh, 1993). Further, the back stage wall has been enhanced through 'scenic design camouflage' (see figure 1.6).

Although *HHPA* describe themselves as 'anonymous facilitators', it is difficult to discern between existing historic artifact and contemporary interior design intervention. Design intervention further does not correspond to their strategy which is intended to

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<sup>11</sup> From this point, *Hardy Holzman Pfeiffer Associates* will be identified as *HHPA*.

create 'unity in contrast' in place of 'unity of time and form' (Yee, 2000). With the exception of the introduction of theatre lighting and ventilation system (see figure 1.7), and oak benches and balcony stools which replace damaged auditorium seating (see figure 1.4), the *Majestic* does not integrate high contrast between old and new. Changes made within the interior historic volume are also significant: in order to improve sightlines, the original three-tier theatre is adapted to two tiers, reducing seating capacity to half its original seating capacity. Subsequently, *HHPA* do achieve their goal of reflecting the contextual urban condition within the interior, and of fulfilling the preservation programme of preserving an existing theatre by accommodating a public theatre and similar interior use. The designer as anonymous facilitator is also achieved, notwithstanding the authentic replication, by creating an authentically legitimate interior environment at a cost far less than a new or restored theatre. As described by Mackintosh, a 'tangible spirit of place' and 'sense of theatrical place' are retained.

The absolute state of authenticity within an historic interior environment exists prior to design intervention. Thus, the type and degree of design intervention is dependent upon historic significance and interior integrity<sup>12</sup>; fundamental to the viability of adapting a contemporary programme to a historic interior environment. In that, an interior which retains a high degree of authenticity requires greater strategic design and form of interior historic preservation, also determining less flexibility in adaptive use. Adaptive use is facilitated by providing for a similar contemporary use to that of the historic use; further allowing greater retention of authentic interior historic fabric and authenticity in use. Therefore, the application of authenticity criterion must be evaluated objectively. A broad interpretation of authenticity allows change and development in historic interior

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<sup>12</sup> Integrity is the authenticity of a historic interior.

environments, informed by considered adaptive use. Authenticity provides basis for preserving interior environments in historic buildings.

### **The Culture of Memory**

*In being vestiges of different periods of time, political systems and lifestyles, historical buildings convey information about the life of people as well as their tastes and aesthetic attitudes. Buildings therefore can act as materialized memories, memories that relate to the observers' knowledge and experience. (Schultz, 2000, p. 49)*

Historic preservation involves the protection of the physical or built environment and its subsequent non-physical associational counterpart. Intangible associations, which form a connection between people and place, include use, meaning, and cultural or spiritual values (Parks Canada, 2003). As artifact, interior historic environments preserve a record of memory of past socio-cultural events interpreted in the present.

Historic interior environments convey two forms of memory: direct memory, references to the physical interior and historicity of place, and indirect memory, the interpretive narrative constituent of place formed through the quotation of historic buildings (Schultz, 2000). Within a historic preservation context, memory refers to the actualization of past impressions or information that is represented as past, either concretely or metaphorically (Le Goff, 1992). As described by Mostafavi & Leatherbarrow: "Events in the past – at least our feelings, thoughts, tastes, and so on about them – 'mark' the memory" (1993, p. 116). Memory as cultural experience is described as a structure in relation to the past, whereby history has shaped memory (Steedman, 2002). Therefore, there is a dual relationship which exists between history and memory. History is also a subset of memory, a process of 'ideation', 'imagining' and 'remembering' (Steedman). In *History and Memory*, Le Goff establishes this duality: "Memory, on which history draws and which nourishes in return, seeks to save the past in order to serve the present and the

future" (p. 99). Within the framework of historic preservation, memory is a record of the temporal, referenced directly and indirectly.

### *Direct Memory*

Direct memory is the act in which physical interior artifact is referenced directly. Functioning through an intermediary such as historic interior environment, place experienced in the past establishes memory. References to place are subsequently drawn through memory, effecting historic recall. In *The Poetics of Space*, Gaston Bachelard refers to historic recall in the context of dwelling:

Therefore, the places in which we have *experienced daydreaming* reconstitute themselves in a new daydream, and it is because our memories of former dwelling-places are relived as daydreams that these dwelling-places of the past remain in us for all time. (1994, p. 6)

As a repository of memory, Bachelard identifies dwelling as the primary place within which memory inhabits. Here, however, dwelling is an explicit reflection of memory. In that, interior dwelling as intermediary harbours our most private experiences and is therefore the most intimate form of memory. John Ruskin in his treatise, *The Lamp of Memory* in *The Seven Lamps of Architecture*, also reiterates historic recall through place: "We may live without her, and worship without her, but we cannot remember without her" (1909, p. 249). Ruskin describes the temporal nature of memory. Given that, without the intermediary of place, there no longer exists a repository for memory. Bachelard and Ruskin establish historic artifact as an intermediary for the act of memorizing. As described by Schultz, historic artifact is the manifestation of 'materialized memories'.

Historic recall in the context of memory and cultural mediator is also referred to as historical reconstruction. Historical reconstruction is the activity of inferentially forming a record of past socio-cultural events, through physical traces existing in the present (Connerton, 1989). Traces are embedded in material, form or detail, and the temporal past

becomes reconstructed through the quotation of traces (Schultz, 2000). Traces may be conceived through the tangible - object, architecture or artifact - or the intangible through written form or meaning<sup>13</sup>. Paul Connerton in *How Societies Remember* notes that traces, which are regarded as historical evidence, are described as "marks, perceptible to the senses, which some phenomenon, in itself inaccessible, has left behind" (p. 13). Ruskin also describes the act of memory as conceived through traces: "There was yet in the old some life, some mysterious suggestion of what it had been, and of what it had lost; some sweetness in the gentle lines which rain and sun had wrought" (1909, p. 269). Connerton and Ruskin suggest recourse to nostalgia and refer to the inaccessible and intangible nature by which traces are subsequently inscribed in the physical environment. In *Reflections*, Walter Benjamin correspondingly characterizes the nature by which traces are inscribed, specifically within the interior environment:

To live means to leave traces. In the interior these are emphasized. An abundance of covers and projectors, liners and cases is devised, on which the traces of objects of everyday use are imprinted. The traces of the occupant also leave their impression on the interior. The detective story that follows these traces come into being. (1986, p. 155)

The relationship of traces within the interior speaks to interior use as a reflection of the 'everyday', and therefore a reflection of the socio-cultural past. Leaving 'their impression' refers to the physical trace, but can also be interpreted as ascribing non-physical associational meaning within the interior. Benjamin also describes 'the detective story that follows' which can be interpreted as the conjectural role of preservation in determining the nature of memory in relationship to traces. The detective role is conjectural because traces can be ambiguous: the expression of the built environment changing with time and use,

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<sup>13</sup> The notion of historic traces was conceived in sixteenth century Rome where monuments or classical buildings were considered bearers of message or memory. These monuments or 'monumentum', derived from the Latin verb 'moneo', meant 'to remind', 'to admonish' and 'to suggest'.

resulting in an interpretation of these changes in time (Schultz). Consequently, Schultz characterizes the changing nature of traces as embodying a 'layered time-space narrative': layers formed in different time periods intersect, simultaneously recalling historic narrative and the culture of place, rendering the boundary of time indistinct. Traces are therefore the metaphorical expression and cumulative history of place, communicated through physical surface representation, interpreted by memory.

In *Dust: the Archive and Cultural History*, Steedman identifies that the notion of archive is intrinsic to memory. Where, "time has been slowed down, compressed into the interior spaces of remembered things" (Steedman, 2002, p. 79). Steedman essentially establishes that the interior retains a micro-history, harbouring direct and indirect memory. Metaphorically alluding to the museum as archive; the museum is a context where objects most overtly allude to memory and social event: "The objects that they contain are, apart from old buildings, the most potent reminders we have of the past and of the complexities of our civilization" (Davey, 1992, p. 19). Objects are comparatively associated with the significance of historic buildings; subsequently, it is possible to interpret interior as archive or 'material derived from cultural activity' (Steedman). As substantiated by Steedman, the archive manifests place: "The Archive then is something that, through the cultural activity of History, can become Memory's potential space, one of the few realms of the modern imagination where a hard-won and carefully constructed place, can return to boundless, limitless space" (p. 83). Steedman's identification of meaning in the context of the archive substantiates historic interior as harbouring memory interconnected to past events which unconsciously inform our present experience.

### *Indirect Memory*

Memory as articulated in response to the narrative constituent of place is referred to as indirect memory. In order to frame the context of preservation in conjunction with

indirect memory, the act of ritual will be used. Kieckhefer, in *Theology in Stone*, describes memory as ritual in response to historic artifact: "Historians speak of a Continental church where it is a wall-painting of the Virgin that is plastered over during the Reformation, venerated nonetheless with reverent bows by generations of villagers, then rediscovered in the course of restoration" (2004, p. 3). Although the context is unclear, Kieckhefer establishes how memory in ritual gesture and sacred belief can subsist in absence of historic artifact. Kieckhefer also refers to Robertson Davies in *The Rebel Angels* when reiterating the function of ritual:

What I call cultural fossils are parts of human belief or behavior that have become so imbedded in the surrounding life that nobody questions them. I remember going to church with some English relatives when I was a boy, and noticing that a lot of the country women, as they came in, made a tiny curtsy to a blank wall. When I asked why, nobody knew, but my cousin inquired of the vicar, and he said that before the Reformation a statue of the Virgin had stood there, and although Cromwell's men had destroyed it, they could not destroy the local habit, as evinced in the women's behavior. (Davies, 1981, p. 178)

Again, the context is unidentified and is unclear as to why Kieckhefer refers to Davies' fictitious novel. Consequently, the church characterizes an implicit form of memory through associational ritual; essential to articulating experience of sacred place. Ritual becomes a form of reading historic artifact, as characterized by indirect memory.

Regardless if the act of memory transcends individually or collectively, memory is an activity which is unconsciously and automatically performed. Perception of place, either individually or collectively, functions through sense experience and is dependent on memory (Bouman & Van Toorn, 1994). Mieke Bal in *Acts of Memory: Cultural Recall in the Present*, describes this dependence on memory: "Cultural memorization is an activity occurring in the present, in which the past is continuously modified and redescribed even as it continues to shape the future" (1999, p. vii). Experience within the present is largely governed by a construct of the past (Connerton, 1989). Knowledge of social events in the



past is possible through interpretation of physical historic artifact in the continuity of interior form, features, material, or detail. The present context is causally interconnected to past artifacts and events which unconsciously inform our present experience. Design intervention is informed by the subtext of memory as cultural mediator and its relationship to experience.

## Case Studies

The following case studies are an integration of historic preservation theory and varying degrees of interior design intervention. Within the historic preservation framework, interior design case studies are limited. The work of Inger and Johannes Exner, Carlo Scarpa, and Jose Antonio Martinez Lapena and Elias Torres Tur characterizes a contemporary use within an interior historic context; integrating memory and social event. Together, these case studies provide an illustration of interior historic intervention.

### Inger and Johannes Exner

#### *Koldinghus*

Koldinghus Castle, commissioned in the 13<sup>th</sup> century as a citadel, sits on the edge of the Kolding fjord in Kolding, Denmark. Koldinghus has developed and transformed through time, housing various functions such as fortress, royal residence, museum, and venue for political practice (Dedenroth-Schou, 2004). Following a fire in the early 19<sup>th</sup> century, the castle was damaged and subsequently remained in ruin for several decades. Throughout the following century, the ruins were gradually rebuilt and subjected to restoration programmes in which the most extensive restoration occurred between 1972 and 1994, directed by architects Inger and Johannes Exner (Dedenroth-Schou). The Exners oversaw the castle's conversion to a museum of cultural history and a venue for cultural activities; also serving as Kolding's most significant landmark. The present structures, dating from the 15<sup>th</sup> and 16<sup>th</sup> centuries, have been acknowledged for their value as historic artifact and as strategy of design intervention, and were recipient of international preservation accolade.

#### *Intervention*

Inger and Johannes Exner, restoration architects, developed an interest in historic preservation theory and the subsequent cultural value of historical architecture through

several commissions for church restoration. Seeking the least consequential form of preservation, the Exners view historical buildings as characterizing a historical life process, inherent to design intervention:

Today we feel that any historical building can be viewed almost as an organism. One, which has gone through an individual development that has been an important factor in the establishment of its identity. This must be respected and thus substantiate the fact that it must be allowed to develop if it is to survive. We learned to think of a building as a living creature with a continuous life cycle. (Dirckink-Holmfelf, 1994, p. 7)

The Exners, often compared to Carlo Scarpa however, differing in philosophic approach in that the Exners interventions are visible, additive, and wholly reversible; unlike Scarpa's additive and subtractive approach to historical preservation. The Exners methodology is indicative of the primary goals, as per the *Standards*: "Create any new additions or related new construction so that the essential form and integrity of a *historic place* will not be impaired if the new work is removed in the future" (Parks Canada, 2003, p. 25). In that, if the entity of intervention is removed, Koldinghus is returned to its former state - the original, in which it was discovered. The Exners mediate based on the notion that there is an eternal form which survives historical development, which is interconnected with the original authentic form (Dirckink-Holmfelf). The process of intervention begins for the Exners with a close reading of the building as a primary source of information and subsequent respect for the existing and pre-existing fabric. Therefore, the first building-archaeological survey of Koldinghus was conducted two months prior to design intervention, resulting in a learned 'language' of the building to obtain a 'comprehensive view, and an understanding of the complex building and its dramatic life' (Dirckink-Holmfelf). The ruin hall, one of the key interior spaces in Koldinghus, characterizes the underlying principle whereby the new structure cannot encroach on the old fabric (see figure 2.1). An independent suspended roof structure of laminated timber supported by

freestanding branched columns is inserted between the ruin walls of the Castle to form the ruin hall (see figure 2.2). Stairs are further suspended and inserted within the ruin walls (see figure 2.3). Existing marks and traces have also been maintained, as articulated in the Castle chapel, allowing exploration of the historic fabric (see figure 2.4). Archeologically eminent traces are also evident in the East wall of the South wing (see figure 2.5). Referred to as retaining the building's 'narrative value' and 'historical fingerprint', the Exners employed the use of dissimilar materials to differentiate from the original interior, as stipulated by the *Standards*:

New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment. (1997, p. vii)

Material exploration has further been guided by the principle of homogeneity. That is, the introduction of new material corresponds to the exploitation of few materials, resulting in a uniform composition (Dirckink-Holmfelf). The location of materials and lighting is also key, suggestive of the original location and form of interior architectural elements.

Through historical interpretation and subsequent responsive design intervention into the historical interior fabric, the Castle remains its most prominent exhibition. The minimalist approach and sensitive mediation into Koldinghus has preserved a historical imprint and source of knowledge of the past.

### **Carlo Scarpa**

The work of Carlo Scarpa (1906 – 78) and his interventions into the historic fabric of Venice, Italy, are primarily constructed around notions of memory, narrative, analogy, and place (Olsberg et al., 1999). Grounded in a modernist aesthetic, Scarpa's work is not characterized by one approach; exposing, interpreting, and adopting to the immediate historic and cultural context, responding differently through subtle tectonic interventions

(Schultz, 2000). The following various forms of intervention will illustrate how design intervention can be integrated and can establish a dialogue with the historic interior context.

### *Intervention*

Scarpa was not a proponent of historic preservation; rather his work demonstrates a reinterpretation and creative transformation of traditional elements, incorporating several degrees of intervention (Mostafavi & Leatherbarrow, 1993). Scarpa opposed the imitation or return of a building to an original state: "History meant two things to Scarpa: the traditions of the architectural discipline and its craft, and the evolving fabric of the built world" (Olsberg et al., 1999, p. 13). Termed an 'inclusive approach', Scarpa incorporated a strategy of demolition, change, and modification:

He layered history, allowing each historical moment to come alive and take its place next to the others. Essentially functioning as a curator in deciding how to treat each fragment of the existing structure, he removed some elements, restored others, and interspersed new ones. He was able to achieve this while setting up a dialogue between old and new, provoking the older elements into conversation with wholly invented new forms, surfaces, textures, and motifs. (Ranalli, 1999, p. 40)

Through a process of addition and subtraction, the juxtaposition between old and new reveals the notion of layering. Scarpa employed non-hierarchical layering as a technique to allow divergent elements to coexist, such as the physical and their non-physical associational counterpart (Schultz, 2000). The use of layering allowed for the exploration of issues such as materiality and connection, while preserving the originality of the historic interior (Frampton, 1995). Kenneth Frampton in *Studies in Tectonic Culture* refers to layering as montage, a strategy for integrating heterogeneous elements (1995). This strategy is explored by Scarpa in the intervention at Ca' Foscari, Venice, 1935-37. Scarpa viewed elements such as opening, door, and stair as fundamental, referred to as the 'critical moments of the building' or 'the essence of the built form and the thread that

connects us to the past' (Olsberg et al.). A window detail at Ca'Foscari whereby a new window is screened against the old illustrates the layering of old and new (see figure 3.1). The window at Ca'Foscari further alludes to the interaction between function and ornament in which Scarpa assigned precedence to functional purpose in design intervention (Frampton). Similarly, this strategy of layering is used at the Fondazione Querini Stampalia, Venice, 1961-63. The stairs ascending to the library expose the old and new; the addition of treads to the existing stairs allowing both to concurrently exist in time. Both contrasting and similar materials are introduced in a new way allowing the historic fabric to remain distinct and independent; where new brick contrasts degraded brick (see figure 3.2). Subsequently, Scarpa's use of layering was not limited to the building. Exhibitions were designed as an added layer, adapted to the historic interior as a layered composition such as the exhibition at the Castelvecchio Museum, Verona, 1956-73 (see figure 3.3). Frampton defines this use of layering within the interior as the principle of analogy:

Scarpa was committed to the idea of analogy at every level in his work, that is to say, to a deductive argumentation that does not proceed from the whole to the part but rather moves homologically from part to part. (p. 312)

Scarpa developed a formal relationship and spatial layering in which the sequence, character, and organization of each historic artifact responded to the building and to one another as an interior composite of elements, resulting in an 'unfolding progression from part to part and joint to joint' (Schultz, 2000). The viewer thus reflects on the building's history and sensitive interpretation of interior exhibition as narrative.

Accordingly, how can weathering, beyond a romantic form of aging, become anticipated and incorporated into design intervention? Scarpa developed responses and anticipated these issues, achieving an aesthetic by deliberately creating conditions where weathering could occur. At the Olivetti showroom, Venice, 1957-58, (see figures 3.4, 3.5,

and 3.6) the treatment of the exterior façade responds to the inevitable transformation of the building over time (Frampton, 1995). For instance, vertical and horizontal channels located at the base of the raised lettering run in the direction of the anticipated flow of rainwater (Mostafavi & Leatherbarrow, 1993). Local materials are incorporated into design intervention forming a material layering, referencing the immediate context. Scarpa responds to the process of 'ageing, transforming, and even dying' thus, remaining is a memory or trace of an event from the past: "The addition of memory as an immaterial component to buildings is Scarpa's way of touching what might be called the 'soul' of the building, the part that is capable of telling stories about itself and its location" (Schultz, 2000, p. 53). Although the application of weathering as a didactic component to a building does not transcend to the interior, weathering can be understood through traces and the degradation or deterioration of the interior environment left by use and social event where memory remains present.

Scarpa's work simultaneously integrates spatial, material, and associative layering. Specifically, associative layers refer to "a broader content of buildings, associations that awaken memories of something else, allowing the concurrent presence of completely different sites and times" (Schultz, 2000, p. 53). Through an understanding of Scarpa's use of layering, contextualization, and analogy, memory becomes incorporated as a conscious part of design intervention.

**Jose Antonio Martinez Lapena  
and Elias Torres Tur**

*Sant Pere de Rodes*

Sant Pere de Rodes monastery in Port de la Selva, Catalonia, Spain, is regarded as a primary historical example of vernacular architecture from the Catalan Roman era. Its origins date from 878, after which the monastery sustained several successive changes, housing various interior uses. Following a fire as a consequence of the Franco-Spanish wars, Sant Pere de Rodes remained in ruin from the 17<sup>th</sup> century until its current intervention led by Jose Antonio Martinez Lapena and Elias Torres Tur. Today, the monastery functions primarily as a museum; however, it is the monastery which is the subject of the historical intervention. The work of Lapena and Torres which is characterized by sensitive, small-scale interventions into the historic fabric, will subsequently inform the nature of small-scale historical intervention within historic interior environments.

*Intervention*

Within the scope of historical preservation, Lapena and Torres' interventions employ a minimalist language of Modern architecture restrained by a historic consciousness, merging a contemporary use with tradition; integrally preserving interior artifact (Buchanan, 1990). Design intervention, almost obscure, is revealed only when its presence is necessary to define and make use of the interior spaces (Curtis, 1993). Through interpretation of the visible and invisible, Lapena and Torres reveal a consciousness of memory. As per Curtis, describing their strategy of minimal intervention: "A delicate insertion can reveal new possibilities, and hint at old memories. The pre-existing is then transformed, but recognizable fragments of the past are left here and there as traces of earlier times, earlier happenings, even earlier maps" (p. 21). Key historic



fragments are subsequently the focus, communicating intervention through location and scale (Buchanan). Intervention into transition space exploits massing, silhouette and lines provided by functional details such as existing door frames (see figures 4.1 and 4.2). The existing masonry walls support a new roof section, which does not compromise the original exposed walls (see figures 4.3 and 4.4). An old refectory has been converted to a display space; the display cases exploiting solid and void (see figures 4.5 and 4.6). These historic fragments 'frame experience' whereby the interior is conceived as 'a scenario or sequence of events' (Curtis, 1993). Though objective in nature; Lapena and Torres' interventions are distinct, in lieu of proceeding neutrally, judiciously, in response to the cultural-historical condition.

The work of Lapena and Torres is often compared to the work of Carlo Scarpa, recalling place and identity and strategies of layering and weathering within the context of museum adaptations into historic buildings. Concrete stairs have been layered over existing stair remains, recalling Scarpa's stair intervention at the Fondazione Querini Stampalia (see figure 4.7). Similarly, a passage or wood bridge on concrete pillars has been introduced in order to suspend over and subsequently protect the voids of archaeological excavations (see figure 4.8). Thus, design intervention is often effected within an existing historic environment, through an inclusive approach or understanding of the historic fabric. Subsequently, intervention involves the response to and the interpretation of a facet of the interior; manifesting an inherent sense of place. Curtis expands on this notion, as characterized at Sant Pere de Rodes:

The reading of a place involves a feeling for the intangible as well as the visible features which give a site its unique character. There is a process of layering and differentiation which contributes to the historical tissue. Strata of meaning, deposits of time, physical forces, the habits of people, all make their mark. (1993, p. 21)

A process of layering through analogy and differentiation is exploited as an extension of the historical tissue. Degradation, referred to by Lapena and Torres as erosion, is used in anticipation to “set off the new against the old in a way that is intended to reveal new aspects of both” (Curtis, 1995, p. 88). For instance, the introduction of marés sandstone ashlar above a door opening will degrade to suggest the aged wall to which it is joined (see figures 4.9 and 4.10). Design intervention establishes a dialogue between materials within the framework of historic and modern form whereby memory has been considered.

Lapena and Torres have formed a connection between existing historic fabric and interior intervention. However, they have received opposition from several historic preservationists, arguing for the severity of their transformations. Subsequently, Lapena and Torres’ sensitive approach to design intervention characterizes knowledge of materials, techniques, memory, and the historical within the context of a contemporary use.

#### *Summary of Findings*

Within their intervention strategies, the Exners, Scarpa, and Lapena and Tur characterize underlying commonalities. Narrative, juxtaposition, selective layering and selective intervention are predominant. The historic life process is also retained through reading of the interior historic fabric; establishing minimal intervention. Each intervention speaks to interior narrative and memory by creating a dialogue and sequence of events through varying scales within the interior historic fabric. The Exners establish the least severe form of intervention by remaining as anonymous facilitators. Scarpa retains a distinctive personal architectonic imprint; however, may also be recognized for his inclusive capacity through consideration of detail. Although Lapena and Tur are more selective in their interventions, they are the most extreme in being selective mediators: they can be described as overlapping their own narrative over the existing historic narrative. Further, the criticism of the Exners’, Scarpa’s, and Lapena and Tur’s work is

through the concept of narrative. Historic recall is established; however, it is unclear and difficult to discern if the user in response would effectively be aware of or determine the nature of narrative.

The selection of these three pieces of work coincides with historic preservation theory by demonstrating varying degrees of intervention. Their challenge is to intervene within a dynamic historic context which integrates an extensive history; demonstrating how to selectively intervene by respecting various historic events. Although each intervention is arrived through varying degrees and forms of intervention, the life-cycle of the building is invariably respected. Historic preservation case studies within the interior context are limited. Further, North American interior historic preservation employs techniques which are often stringent, conservative, with focus on formal code compliance; memory and authenticity are not expressed through historic dialogue, as significant within interior preservation. By sourcing European case studies which may however be viewed as extreme, they were selected from the viewpoint that they are more rigorous in their response, driven by the memory which constitutes place. Through acknowledgement and incorporation of these interior historic preservation strategies, it becomes possible to redefine and form a revisionist approach within the scope of interior historic preservation.

## Areas of Inquiry

The identified theory of historic preservation is inherent to the development and preservation of interior environments in historic buildings. At the core of this practicum are subsequently several significant questions which will form the basis for this investigation. Specific areas of inquiry include:

1. *What is the value of sustaining<sup>14</sup> the interior integrity<sup>15</sup> of a historic building?*
2. *What is the viability of adapting a contemporary programme to a historic interior environment?*
3. *What is the value of preserving the historical record of memory of a historic interior environment?*

These inquiry questions will provide a framework in order to guide design development of the practicum topic. The design solution and findings will result in a summary of the inquiry questions and a synopsis relative to initial design intent.

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<sup>14</sup> To sustain is to maintain, prolong, or preserve the cultural identity of a historical structure.

<sup>15</sup> The integrity of a historical building is the building's original architectural character-defining elements that reflect its intrinsic historical, social, political or cultural value.

## 2. Inquiry Process

The purpose of the following section is to describe the process for obtaining and analyzing information which will be used to inform a specific design problem. The proposed design process includes literature review, content analysis, conjecture analysis, case study, and a programme document which will inform the design and conceptual development of the practicum topic.

### Collecting Information

#### *Literature Review*

A review of current information resources was conducted in order to evaluate, summarize, and interpret literature relative to historic preservation and to provide theoretical basis for design intervention. Historic preservation theory and concepts will be applied and synthesized in the form of a case study, principles of design, and interior design, and will act, primarily, as general information. The primary purpose of literature review is to present an overview of significant literature with respect to the topic area. However, literature pertaining specifically to the subject of interior historic preservation is limited. Topic areas which will establish a relationship to interior historic preservation include preservation and history, socio-psychological human factors, the culture of memory, interior authenticity, and historic documentation relative to the interior intervention site.

A survey of primary<sup>16</sup> and secondary<sup>17</sup> sources of information consisting of visual and verbal print media will inform the literature review. Potential sources which are used for obtaining pertinent information are research reports, historic preservation journals, conference proceedings, statistics, photographic material, interior case studies, electronic

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<sup>16</sup> Primary sources are original sources of information.

<sup>17</sup> Secondary sources are information relative to a primary or original source of information.

media, information collected by interviews and questionnaires, and standards and guidelines for historic preservation. Specifically, the *Standards and Guidelines for the Conservation of Historic Places in Canada* and *The Secretary of the Interior's Standards for Rehabilitation* will be referred to as documents which will provide principles, practices, and advised methods of intervention relative to the preservation of interior historic artifact. In determining which primary and secondary sources of information provide significant contribution to the understanding of the identified topic area, new methods and concepts of interior historic preservation will be revealed; therefore, narrowing the scope of the review process.

### **Analyzing Information**

Methods of analyzing information used in the social sciences research process are applicable to design development; however, such research methods may be used differently relative to design development. The design process involves subjective and intuitive methods of information analysis. Subsequently, methods used in social sciences are systematic and objective, facilitating the identification and definition of design concepts.

#### *Content Analysis*

The method of content analysis is a social sciences research process which involves the systematic quantification and analysis of relationships, meanings, and concepts in order to describe the form and content of information collected from primary and secondary sources of literature (Sommer & Sommer, 2002). Content analysis is appropriate for the purposes of this practicum as it is a qualitative<sup>18</sup>, unobtrusive<sup>19</sup> measure, which is applicable to all forms of information (Babbie, 1989). Content analysis also

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<sup>18</sup> Qualitative research is a method of inductive, descriptive analysis. Conversely, quantitative research refers to the use of numerical and statistical analysis.

<sup>19</sup> Content analysis is unobtrusive, as the researcher does not influence the material being studied.

facilitates ease of replication, provides historical and cultural insight through literature review, and is a method in which the designer only requires access to materials which are coded<sup>20</sup> (Sommer & Sommer). This process of coding refers to the content and structure of all collected materials. Content and structure is categorized according to specific themes, topics, characteristics, patterns, words, and phrases or other components of text, which are classified into content categories (Weber, 1990). However, while concepts or results are descriptive<sup>21</sup> rather than explanatory, coding for descriptive concepts is subjective and subsequently results in unreliable methods of analysis (Sommer & Sommer). Reinforcement of reliability is attained through consistent coding of materials or by studying methodologies (Babbie, 1989). Subsequently, an objective design process is achieved by establishing criteria for evaluating information.

The analysis and coding of information will inform design development and resolution. Emerging themes through content analysis and literature review will address the identified areas of inquiry. However, where primary and secondary documentary evidence is not available, conjecture-analysis is a methodological form of analysis which will provide basis for design intervention.

#### *Conjecture-analysis*

*What copying can there be of surfaces that have been worn half an inch down? The whole finish of the work was in the half inch that is gone; if you attempt to restore that finish, you do it conjecturally. (Ruskin, 1909, p. 269)*

Design methodology is essential for establishing a design process whereby theory is logically derived from an analysis of facts. Conjecture-analysis is a methodology which is used to draw inferences with respect to original interior form, use, features, or material of

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<sup>20</sup> Coding is the transformation of data into standard categories for analysis, frequently used in the analysis of mass media.

<sup>21</sup> Descriptive analysis is limited to recorded materials and is subsequently subject to any biases in these materials.

interior historic artifact; subsequently effecting an appropriate response of design intervention. In *Conjectures and Refutations: the Growth of Scientific Knowledge*, Karl Popper maintains that design is reliant on conjectures (1963). Conjecture-analysis will provide a framework within the context of interior historic preservation where preliminary analysis is required to produce a well founded design resolution.

Conjecture-analysis is an inferential<sup>22</sup> and analytical method of investigation. Interchangeably used with the terms conjecture-refutation, analysis-synthesis, historical conjecture, and conjectural restoration, conjecture-analysis originates from the philosophical foundation of science. Inquiry begins with observation, fact, or an issue of contention, followed by analysis and formulation of a hypothesis or conjecturing (Gelernter, 1995). Conjectures become more clearly defined as the design problem becomes structured through collected information and facts relative to an interior historic environment (Cross, 1984). A process which is descriptive, conjecture is generally used to deduce the explicit and implicit nature of information from presumptive or deficient evidence (De Jouvenel, 1967). Consequently, conjecture-analysis is perceived as both a valid and tenuous method of investigation. However, within the preservation framework, conjecture-analysis facilitates the investigative process of historic evidence to inform design resolution.

Within the field of historic preservation, the *Dictionary of Building Preservation* defines conjectural restoration as: "The replacement of missing elements or the removal or repair of existing work based on speculation or theory due to insufficient physical evidence or incomplete historical documentation" (p. 114). Conjectural restoration is largely viewed as unsubstantiated as it is established in speculative theory; changes made to the historic

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<sup>22</sup> Inferential refers to a method used to deduce or make generalizations from fact or premise.



fabric based on conjecture is regarded as severe<sup>23</sup>. As per the *Standards*: “Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken” (1997, p. vii).

However, the goals of the standards are too stringent and do not address the changing nature of interiors in relationship to a contemporary use. In that, in the near total absence of primary and secondary documentation for determining the appropriate method of intervention, the most varied assumptions are built upon conjectural analysis.

Karl Popper in *Conjectures and Refutations* describes how knowledge develops by conjectures: “The way in which knowledge progresses, and especially our scientific knowledge, is by unjustified (and unjustifiable) anticipations, by guesses, by controlled tentative solutions to our problems, by *conjectures*” (1963, p. vii). Popper’s process is grounded in scientific theory; however, is also applicable to historical investigation. Popper demonstrates that fundamental to the principle of conjecture is its opponent, refutations, where conjecture and problem specification occur in tandem. Through criticism, the complexity of the issue is established and subsequently becomes more clearly defined; resulting in a refined solution or proposed form of historic intervention: “The very refutation of a theory – that is, of any serious tentative solution to our problem – is always a step forward that takes us nearer to the truth” (Popper, p. vii). Although conjecture cannot be verified and established as absolute, the solution remains an exploration arriving closer to historic accuracy. Similar to Popper’s theory of conjectures and refutations is De Jouvenel’s theory in *The Art of Conjecture*. De Jouvenel explores ‘reasoned conjectures’, the necessary process in decision-making by which one arrives at

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<sup>23</sup> Historically, conjectural restoration has been counteracted; such was the motivation for the *Society for the Protection of Ancient Buildings*, founded in London by William Morris in 1877. The *Society for the Protection of Ancient Buildings* is an organization committed to developing research methods and techniques for the restoration of historic buildings.

its conclusions. Reasoned conjectures are associated with analogy; deemed more rational than extrapolation or assumption (De Jouvenel). Through reference to an existing condition of analogous circumstance, unconstructive developments are anticipated. Consequently, Popper and De Jouvenel demonstrate the course of action by which historians proceed inferentially.

The use of conjecture-analysis illustrates a compatible purpose with historic preservation. As per the *Standards*, acceptable intervention is "new design that is compatible with the remaining character-defining features of the historic building" (1997, p. xi). Therefore, conjecture-analysis corresponds with the *Standards*. Specific to an interior historic context, the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Furnished Interiors* identifies the use of conjecture-analysis as subject to the degree of design intervention. Conjecture as a valid methodology decreases where the greatest level of integrity is demonstrated in a historic interior (U. S. Department of the Interior, 2000). Conversely, conjecture is validated where the least extent of interior integrity is demonstrated. Regardless of the form of intervention, conjecture-analysis provides a methodology from which to substantiate historic evidence in the absence of primary documentation.

Conjecture has been conceptualized as significant to the inquiry process. Within the context of historic preservation, conjecture-analysis is significant in defining the scope, focus, and form of interior design intervention.

### **P r o g r a m m e**

The following programme forms the basis for design, defining design and user needs according to *Programme Requirements* (see Appendix A). As design intervention is characterized by intervention of the existing historic fabric and contemporary design

intervention, the programme document will inform these two strategies. Programme requirements are further described in relation to contextual analysis, human aspects, physical requirements, and guiding design principles.

### **Contextual Analysis**

*Preservationists need to recognize that the preservation of historic buildings should include not only the physical structure but also the history of the place. Only in this way does a historic building maintain its full meaning. To consider the spaces within and around buildings as part of their living history allows historic structures a more active and significant role within the community.*  
(Tyler, 2000, p. 15)

Contextual analysis is performed to identify the values, goals and implications of the existing macro through micro context, and to inform and provide basis for design; programme and design concept. Contextual aspects include socio-cultural, political and economic issues; land use, urban development, mobility and future planning and policy proposals. Issues of context pertaining to the intervention site include preservation and history, human factors, and most importantly, programme issues of viability.

### *Site Description*

#### *Background of Context*

In the early 1800s, Winnipeg was one of the most rapid growing cities in North America (Heritage Winnipeg, 1999). The *Exchange District*, located in downtown Winnipeg north of the Portage Avenue and Main Street intersection, spans 20 city blocks. Named for the *Winnipeg Grain and Produce Exchange*, the district became Winnipeg's economic centre harbouring numerous wholesale businesses (Sawka, 2001). The city of Winnipeg was at its economic peak, earning its reputation as *Chicago of the North* (Heritage Winnipeg). Winnipeg also established itself as a leading international railway centre; defined as the *Gateway to the West* (Heritage Winnipeg). The *Exchange* represented Canada internationally, extensively financing the city's growth.

The city's development was vastly altered by the real estate boom. At the turn of the century however, its rapid growth halted, resulting in an economic recession (Grover, 1982). Few health and social relief services were available to address the unprecedented social needs of the public (City of Winnipeg, 1983). As government support was limited, the public was reliant on private organizations for social assistance (Manitoba Culture, Heritage and Recreation, 1986). Amongst several accessible social services was the *Salvation Army*, an international movement guided by evangelical belief, devoted to aiding material and spiritual public need<sup>24</sup> (Manitoba Culture, Heritage and Recreation). Arriving in Winnipeg in 1886, the *Salvation Army* established their headquarters in the city centre<sup>25</sup> (City of Winnipeg). As identified by Kilde, this location was strategic: "By the 1880s, most congregations were quite aware that location was a strategic decision that not only could determine the continued existence of the congregation but also could influence, even redefine, the very mission of the church" (2002, p. 88). Housed in the former Baptist church at Rupert Avenue and King Street, the site became the centre of the Army's western practice.

The *Salvation Army's* growth in time gave rise to a need for new headquarters. In 1900, the undersized church was demolished and the present building, the *Salvation Army Citadel* - designed by architect J. Wilson Gray - was constructed and completed in 1901 (City of Winnipeg, 1983). From 1901 to 1960, the *Citadel*<sup>26</sup> functioned as the Manitoba headquarters until the opening of the Colony Street provincial headquarters (Saunders, Rostecki, & Carrington, 1977). In 1960, the *Citadel* became the *Harbour Light*

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<sup>24</sup> The *Salvation Army* is also known as the *Salvationists*.

<sup>25</sup> The *Salvation Army* was founded in England in the 1860s by evangelist William Booth.

<sup>26</sup> From this point, the *Salvation Army Citadel* will be identified as the *Citadel*.

*Rehabilitation Centre*<sup>27</sup> (see figures 5.1, 5.2, 5.3, and 5.4). However, it remained unoccupied subsequent to its designation as a *Heritage Building*<sup>28</sup> in 1983 (Saunders, Rostecki, & Carrington). Today, the *Citadel* maintains a strong presence due to its architectural design, historic record, and location in an urban centre; at the edge of *Chinatown*, Main Street and the *Exchange District*. Impression Imagery is a synthesis of the *Citadel's* historic memory in time (see Appendix B.1). Where, the *Citadel* reflects strength, renewal, social outreach, and a significant period in Winnipeg's history.

Several buildings in the *Exchange District* today are vacant or have been demolished (Heritage Winnipeg, 1999). The stagnation of vacant historic buildings is described by Jane Jacobs in *The Death and Life of Great American Cities*, as attributed to their location within an historic district: "We cannot blame their poor staying power and stagnation entirely on their most obvious misfortune: being built all at once" (1961, p. 198). Consequently, there has been a renewed interest in historic buildings: the *Exchange District* was designated a *National Historic Site* in 1997<sup>29</sup> (City of Winnipeg, 2002). As historic buildings form the historic footprint of the city, their preservation is vital prior to irreversible disrepair and loss. Through selection of a heritage building in Winnipeg, the *Salvation Army Citadel*, the proposed practicum will demonstrate how a contemporary programme can be adapted to a historic interior environment while preserving historic interior as interior artifact.

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<sup>27</sup> *The Harbour Light Rehabilitation Centre* was a detoxification centre and hostel accommodation founded by the *Salvation Army*.

<sup>28</sup> The heritage plaque on the south façade reads: *Historic Winnipeg, Salvation Army Citadel, 1900: The Salvation Army came to Winnipeg in 1884 and built their Manitoba headquarters here in 1900. In 1960 it became the Harbour Light Centre, a detoxification facility. The façade displays an inventive and interesting quality with its false brick arches and unusual roofline.*

<sup>29</sup> The *Exchange District* was designated a *National Historic Site* by the federal Minister of Canadian Heritage, the Right Honorable Sheila Copps.

### *Macro through Micro Context Analysis*

Land/Building Form analysis (see Appendix B.2) constitutes a large scale graphic analysis of downtown Winnipeg. Structures are organized according to an orthogonal grid, radiating from the riverbank reflecting Winnipeg's historic growth along the Red and Assiniboine Rivers. The intervention site is located within a compact massing of built form, characteristic of the *Exchange District*. The built form adjacent to the site is small in scale, in contrast to the medium scale buildings located adjacent to the Red River.

Macro Land Use analysis (see Appendix B.3) encompasses a three-block parameter study of land use bordering the intervention site. The three-block area of investigation is characterized by a diversity of land uses which are grouped according to similar attributes and uses. Commercial use dominates *Winnipeg's Downtown*, interspersed throughout the scope of the study area. The northern region of the study is governed by industrial use, and the municipal and government district borders primary transportation routes. The *Citadel's* proposed theatre use and site location is compatible to that of *Winnipeg's Theatre District*, which borders east Main Street. In that, the *Theatre District* is primarily dominated by large-scale theatre use, a small-scale venue as provided by the *Citadel* provides a corresponding need to existing theatre venue types<sup>30</sup>. Designated green space is limited amidst the density of the downtown area however efforts are conducive to the development of the riverbank sector. Residential use is similarly sparsely interspersed, indicative of the continued depopulation of the inner city (Winnipeg City Council, 2004). The *Winnipeg City Council* is developing and implementing mandates towards downtown

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<sup>30</sup> 1500 or more seats characterizes a very large theatre type, a large theatre 900-1500 seats, a medium theatre 500-900 seats, and a small theatre under 500 seats. As a measure of theatre size, large-scale theatres also provide production and support facilities in addition to seating capacity. Within *Winnipeg's Theatre District*, the *Manitoba Centennial Concert Hall* consists of 2305 seats in addition to support facilities. The *Pantages Playhouse*, which consists of 1475 seats, also provides support facilities. The *Manitoba Theatre Centre* consists of 789 seats, and its corresponding *MTC Warehouse* provides 286 seats.

and neighbourhood revitalization through practices of intensification and containment of urban form (2004). Revitalization mandates are intended to capitalize on the existing downtown infrastructure such as the heritage building stock (Winnipeg City Council). Jane Jacobs in *The Death and Life of Great American Cities* describes the value of heritage building stock to city districts: "Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them" (1961, p. 187). This need is characterized by buildings which vary in age and condition: "But the economic value of old buildings is irreplaceable at will. It is created by time. This economic requisite for diversity is a requisite that vital city neighbourhoods can only inherit, and then sustain over the years" (Jacobs, p. 199). The significance of historic buildings has been demonstrated; opportunities within the intervention site will correspondingly be described.

#### *Opportunities and Constraints of Site*

Numerous opportunities can be identified with respect to the location of the intervention site. Several existing and future developments within the outlying area such as the *Red River College Princess Street Campus*, *Waterfront Drive*, the *MTS Centre*, the *Millennium Library*, and the *Portage Avenue Manitoba Hydro* headquarters are conducive to revitalization of downtown and the neighbourhood area (O'Brien, 2005). The site is located within the historic *Exchange District*, the provincial focal point for art and culture. Subsequently, the site is within close proximity to the *Old Market Square*, a landmark and point of orientation within the *Exchange*; and is also adjacent to the *Chinatown Cultural District*<sup>31</sup>. The distinctive character of the *Citadel* such as its architectural style, pedestrian scale and heritage designation allows the site to function as a future landmark. In that the structure adjacent to the *Citadel*, 219 Rupert Avenue - the *Salvation Army* stores, has been determined as structurally unsound and of no historical significance, there exists

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<sup>31</sup> Winnipeg's Chinatown district was established in 1909.

opportunity for future development of the site. According to primary documentary evidence, 219 Rupert Avenue was constructed in 1905, at a later date than the *Citadel*, and subsequently did not form an integral role to the Citadel's significance (see figure 5.5). As per the *Standards*: "Remove nonsignificant buildings, additions or landscape features which detract from the historic character of the setting"<sup>32</sup> (1997, p. 80). The lane flanked by the *Citadel* and the *Lechtizier Building* provides opportunity for physical connection and continued use of both structures. Also located adjacent to a lane-way, the Citadel's east façade, the least significant in character, provides opportunity for rear loading zones. Entrances located on the west façade may function as access points for secondary user groups. Subsequently, the above-grade south primary entry must be negotiated for universal accessibility without significantly altering character defining elements of the exterior façade.

In terms of vehicular accessibility, the east-west secondary transportation routes provide connection between the primary transportation routes, Main Street and Princess Street, as per the Circulation analysis (see Appendix B.4). East-west blocks are also connected by lanes which evade the one direction routes; proximity to primary routes subsequently facilitates accessibility to public transportation. Public parking, which is interspersed throughout the study area, is limited; future developments subsequently anticipate construction of a new parkade and expansion of the existing civic parkade in the downtown area (O'Brien, 2005). Conversely, the major north-south Main Street vehicular corridor creates a division between the east-west area, negatively impacting pedestrian accessibility. However, the intervention site retains privacy, dissociated from Main Street.

The historic relationship described between the intervention site and current adjacent land use is significant in defining historic context, as indicated by the *Standards*:

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<sup>32</sup> The setting is the area or environment in which a historic property is found.



“Retain the historic relationship between buildings and landscape features of the setting” (1997, p. 77). Proposed use of the *Citadel* will be compatible with identified socio-cultural characteristics, adjacent land use, and historic relationship of the intervention site.

### *Building Description*

#### *Proposed Use*

Proposed use of the *Citadel* is guided by standards of historic preservation and informed by contextual and historical analysis. Use analysis will identify the projected use of the *Citadel* interior, and its corresponding role within interior historic preservation.

Use and subsequent interior intervention of a historic property is determined primarily by its heritage value:

If the use of a historic place is part of its heritage value, then that use should be retained. Otherwise, a use compatible with its heritage value should be found. A viable use – economic or social or symbolic – will better ensure the long-term survival of a historic place. (Parks Canada, 2004, p. 4).

The earliest function of the *Citadel* was to house the *Salvation Army* Manitoba headquarters. However, advocacy for the *Salvation Army* continues to grow today through various initiatives<sup>33</sup> located throughout downtown Winnipeg. The *Siloam Mission*, located adjacent to the intervention site<sup>34</sup>, is a drop-in centre, counselling and mentoring service, conveying the goals of the previous occupancy of the *Citadel* - the *Harbour Light Rehabilitation Centre*. Further, primary and secondary evidence of the *Harbour Light Centre* is limited. It is therefore no longer viable to retain the previous function of the *Citadel*, as identified within the *Standards*. The *Citadel* is currently owned by the *Centre*

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<sup>33</sup> These initiatives constitute public relations and development, residential services, correctional and justice services, and community ventures.

<sup>34</sup> The *Siloam Mission* is located at 564 Main Street.

for *Indigenous Environmental Resources*<sup>35</sup>. With federal government financial support, *CIER*<sup>36</sup> is projected to implement their strategic plan which envisions the redevelopment of the *Citadel* and its adjacent site with the objective to house their office facility<sup>37</sup> (Santin, 2004). Anticipated future use of the *Citadel* provides economic issues of viability. However, proposed use and programme development will be guided primarily by historic significance in providing basis for interior intervention, as historic significance is primary in determining contemporary use.

Adaptation of a contemporary use to a historic building is referred to as adaptive use. Where, the original function of an existing historic building is no longer appropriate, and through varying alterations becomes adapted to house a new purpose (Bucher, 1996). The issue with respect to adaptive use is its undefined approach of 'varying alterations'; where the interior is predisposed to extreme adaptations and subsequent alterations of its interior integrity (Tyler, 2000). Strict adaptive use negates the memory of event:

History exists so long as an object is in use; that is, so long as a form relates to its original function. However, when form and function are severed, and only form remains vital, history shifts into the realm of memory. When history ends, memory begins. (Rossi, 1982, p. 7)

Memory is evoked and comes to life through use of a historic building and through interior reinterpretation. Continuity between the macro context of a heritage site, historic building, and micro interior historic context is established through a responsive contemporary use. As per Schultz: "Symbols and details give coherence to a building and connect it with its historic and local context" (2000, p. 48). Sensitive adaptive use is founded primarily

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<sup>35</sup> The *Centre for Indigenous Environmental Resources* is a Winnipeg based organization which promotes the development and implementation of environmental solutions through sustainable practice.

<sup>36</sup> From this point, the *Centre for Indigenous Environmental Resources* will be identified as *CIER*.

<sup>37</sup> The building and its respective site is projected to be developed as Canada's greenest heritage building, which will house *CIER*'s office facility which integrates an archival library, conference centre and leased office space. 'Green' refers to sustainability; identified by *CIER* as environmental, economic, and social practice which reinforces the continuity of local and global ecosystem structures and functions.

through historic evidence. A significant function of the *Citadel's* interior historic value is its use as a church; which will subsequently become retained as a theatre as substantiated by historic evidence<sup>38</sup>. Interior intervention of theatre use is established as a demonstration for this practicum. The proposed theatre will function as a leased space and venue integrating *CIER* as occupying the adjacent Lechtizier building, demonstrating programme issues of viability. Through sensitive adaptation of the proposed theatre use to the historic *Citadel* interior, the relationship between history, place, and memory of event will be preserved, as expressed in interior built form.

*'Church Becomes Theatre': Socio-Cultural Origins of Interior Space*

The historic relationship between church and theatre within the context of Evangelical worship is significant to understanding the material, social and cultural aspects of interior sacred space. This relationship is explored by Jeanne Halgren Kilde in: *When Church Became Theatre: the Transformation of Evangelical Architecture and Worship in Nineteenth-Century America*. Neomedieval auditorium churches are described by Kilde as records of socio-cultural change; manifest by the relationship between function and worship. In describing the *Citadel* interior, it is not viable to define the true significance of sacred place in the absence of primary documentary evidence. Through comparative and conjectural interpretation and analysis of the neomedieval auditorium church, historic significance is established relative to the *Salvation Army Citadel*. Further, rationale and basis for design intent for proposed interior theatre use is provided.

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<sup>38</sup> For this discussion, see the following section, *'Church Becomes Theatre: Socio-Cultural Origins of Interior Space'* which describes the historic relationship between church and theatre intervention.

### *The Auditorium Church – Exterior Significance*

During the late nineteenth century, the neomedieval auditorium church emerged as a characteristic form of evangelical church architecture<sup>39</sup> (Kilde, 2002). The auditorium church<sup>40</sup> was “a new building type that enclosed a theatre-derived audience room within an eclectic architectural shell composed of medieval vocabularies” (Kilde, p. 104). Primarily constructed of limestone, granite, or sandstone, the auditorium church expressed the massive quality of stone through exterior medieval references:

Random ashlar<sup>41</sup> walls of rough-faced stone, which were battered<sup>42</sup> (sloped outward) at the base to indicate the weight of the building. Stone arches, often defined by polychromatic voisseurs resting on compressed columns, sheltered doors and main windows, and contrasting stringcourses<sup>43</sup> and ornamental patterning animated the walls. Complex perspectives marked by multiple masses pierced by numerous windows filled with stained glass also characterized the style, and buttresses<sup>44</sup>, lancet windows<sup>45</sup>, finials<sup>46</sup>, and crenellations<sup>47</sup> lent a distinctively medieval aura to the buildings. (Kilde, p. 104)

This architectural detailing is indicative of the *Citadel*; materials used in its construction include solid brick and limestone, which complete the battered foundation (Grover, 1982). A three-storey structure, the architecture features “an undulating parapet<sup>48</sup>, an arcaded

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<sup>39</sup> The neomedieval auditorium church originated in the sixteenth-century as an amphitheatre-style church. The amphitheatre form was due to the Protestant Reformation which sought to transform autocratic Christian basilica form worship space to an emphasis of dialogue through central form democratic space. However, the neomedieval auditorium church as prevalent archetype did not occur until the 1860s.

<sup>40</sup> From this point, the neomedieval auditorium church will be identified as the auditorium church.

<sup>41</sup> Ashlar refers to wall construction of quarried stone building blocks which are squared; random ashlar is a type of ashlar block.

<sup>42</sup> Batter indicates the slight slope of a wall face outward towards the bottom. The base of the *Citadel* wall is battered.

<sup>43</sup> Stringcourses are horizontal bands or molding projecting from the wall surface. Stringcourses of continuous brick separate and detail the top portion of the *Citadel* wall.

<sup>44</sup> A buttress is a projecting structure used for supporting or giving stability to a wall or building; typically used on the exterior.

<sup>45</sup> Lancet windows are high and narrow with a pointed arch head.

<sup>46</sup> A finial is a crowning pointed ornament or detail.

<sup>47</sup> Crenellations are the alternating open spaces between merlons in a battlement. Conversely, merlons are the solid intervals between crenellations of a battlement.

<sup>48</sup> A parapet is a projected segment of the wall above the adjacent roof. The *Citadel's* parapet is crenelated.

cornice<sup>49</sup>, and powerful stone and brick voussoirs<sup>50</sup> above unusual blind arches<sup>51</sup>" (City of Winnipeg, 1983, para. 4). The *Citadel* is anchored at the south-west corner by a tower, a dominant feature of neomedieval church architecture. Crenellations further define the south-west tower and south-east roof line (see figure 5.6). Columns which bare a stone arch articulated by voussoirs, characterize the south entry façade (see figure 5.7).

Although the *Citadel's* ornamental detail is not carried to excess, the medieval references<sup>52</sup>, as described by Kilde, are used to convey martial qualities such as permanence, security and institutional authority (2002). Referred to as 'spiritual armories', these structures however, are not imposing, often emulating commercial and public buildings, forming a dialogue with the urban context through 'public activism and private retreat'; the dual mission of the *Citadel*:

The church would be a home for God and congregants, a temple, but it would also be a redoubt, a spiritual armory from which to launch their forays into the dangerous world of the city. It would serve both defensive and offensive purposes. (Kilde, p. 110)

This paradoxical relationship is significant to cornerstone-laying services<sup>53</sup>, as indicated by Kilde. The *Citadel's* cornerstone, an 18 inch limestone block, is located at the south-west corner five feet above ground level<sup>54</sup>. In that, the dual role of the church was established

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<sup>49</sup> An arcaded cornice is the top course of continuous arches that finishes the south and west façade.

<sup>50</sup> A voussoir is an individual wedge-shaped masonry unit forming an arch or vault.

<sup>51</sup> A blind arch is an arch opening filled in with identical masonry as the wall. The *Citadel* features recessed blind arches above several of its windows. Due to the documentation of blind arches as a character defining element, it is possible to establish the intended window condition as reflected within the interior.

<sup>52</sup> Medieval references or architectural detail were derived from military origins during the medieval period.

<sup>53</sup> For a description of cornerstone-laying services, see *Spiritual Armories and Their Mission*, within Kilde.

<sup>54</sup> The *Citadel's* cornerstone reads: This stone was laid by R. J. Whitla. Esq – June 15th 1900. During the time of the *Citadel's* erection, Whitla was a prominent Winnipeg businessman.

during the cornerstone-laying service<sup>55</sup>. Material and spiritual meaning which describes the exterior is also characterized within the interior.

### *The Auditorium Church – Interior Significance*

*Both the theater and the house of worship exist, paradoxically, to symbolize at once community and privacy; they are places in which people come together, and celebrate the fact of their coming together, yet they are there to experience things that are very much their own. (Goldberger, 2001, p. C2.2)*

During the late nineteenth century, a building boom within church and theatre construction occurred simultaneously (Kilde, 2002). However, technological advancements for theatre, concert hall and opera house venues progressed more rapidly; driven by market and not by the traditional role of the church. Given the similarity in pragmatic requirements such as spatial, form, and acoustic requirements, and audience, speaker, performer relationships; church design borrowed and adopted functional criteria from secular sources<sup>56</sup>. This criterion would transcend traditional Evangelical worship space functional requirements, which were no longer adequately supported (Kilde). Within the interior, the auditorium church was termed the auditorium, audience room, or sanctuary, which referred to the primary theatre-derived worship space within the evangelical church (Kilde). The audience room, which is characterized by several identifiable salient features, inferentially manifests evangelical ideology. Subsequently, although the *Citadel* interior has been susceptible to degradation, interior architectural form and meaning embedded in historic artifact remain. Adapted to new uses in time, the significance and value of the auditorium sanctuary supersedes successive use of the *Citadel*.

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<sup>55</sup> For a description of the *Citadel's* cornerstone-laying service see, (1900, June 18). New army barracks – Mr. Whitla lays the corner stone – Address by Mr. Ashdown – Generous Winnipeggers. *Winnipeg Tribune*, p. 3. Also see, (1900, June 16). Well and truly laid was the corner stone of the new Salvation Army barracks – Measrs. Ashdown and Whitla assist. *Manitoba Free Press*, p. 4.

<sup>56</sup> Congregations were aware of the church and theatre relationship; supporting the adaptation of theatre characteristics to improve pragmatic requirements within the church interior.

In, *Spiritual Path, Sacred Place*, Barrie identifies entry to the sacred auditorium room as established by an entry sequence or spiritual path; significant to ritual and spiritual practice (1996). Entry is a threshold; a point of mediation between sacred and secular:

As one entered Wesley M.E. Church<sup>57</sup>, Minneapolis, for instance, the route to the sanctuary proceeded into a wood-paneled vestibule, up the stairs on either the right or left, through another vestibule, and into the auditorium. Echoing ancient patterns that aimed at obscuring or enhancing the significance of religiously powerful places, these routes emphasized the transition between secular public space and the holy domestic sanctuary. (Kilde, 2002, p. 164)

The *Citadel* entry sequence reinforces this transition by a split path; in which the wainscoted<sup>58</sup> staircase diverges into two circuitous paths, converging at the auditorium hall (see figure 6.1). Evangelical processions were performed by the laity<sup>59</sup> within entry and auditorium sanctuary (Kilde). Therefore, it is possible to determine that this spatial strategy also encouraged the social effect of surveillance and voyeurism, characterized by Evangelical morality. Within the theatre, social ritual in passage to entry also emphasized voyeurism. This entry sequence thus dually reinforces voyeurism through historic recall and the role of the performer; also encouraged in the auditorium room.

Koerner in *The Reformation of the Image*, establishes auditorium spatial organization as structured by function. Reiterated by Grover, describing the interior *Citadel* as "finished sparsely to reflect the Army's egalitarian stance, and there were few vestiges of what is generally considered *de rigueur* for churches. Neither, however, was the military motif carried to any excess" (1982, p. 4). Functional requirements such as entry, seating, lighting, and path focused on one centre, the speaker (Koerner). In order to reinforce this focus, monitoring, surveillance and voyeurism were encouraged by

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<sup>57</sup> *Wesley M.E. Church*, Minneapolis, Minnesota, 1892, is a neomedieval church designed by Warren H. Hayes. Hayes acquired a regional reputation for the design of neomedieval style churches.

<sup>58</sup> Wainscot is wood paneling, lining, or any material which covers the lower portion of an interior wall.

<sup>59</sup> Laity are the non-ordained members of a church, as distinguished from the clergy.

Evangelicalism; perceived as a method of controlling moral behavior (Kilde, 2002).

Surveillance was provoked within the auditorium through a panoptical ideal, as spatialized in seating arrangements (Koerner). For instance, the radial-plan form auditorium, which was distinct by the late nineteenth century, retained curvilinear pews derived from the classical amphitheatre form (Koerner). Although variations in radial-plan form are explored, the eastern orientation remained consistent; reinforcing the traditional sacralizing orientation and west-east path direction (Barrie, 1996). This radial-plan form approach for auditorium sanctuaries could be accessed through pattern books, published by church extension boards<sup>60</sup>. Subsequently, as primary source documentation such as drawing records for the *Citadel* are non-existent; sample pages of architectural plans for churches within these catalogues provide historic records as secondary source documentation. As in *Perrysburgh Congregational Church*<sup>61</sup>, which appeared in the 1879 *Congregational Yearbook* pattern book (see figure 6.2). Designed for small size congregations, the *Perrysburgh Congregational Church* was used as a home for their congregants, as was the *Citadel*. Within the architectural plan, the characteristic spatial-cone is represented, as located within the *Citadel's* sanctuary. *Trinity M.E. Church*<sup>62</sup>, constructed within the same timeframe, similarly features curvilinear seating oriented towards the pulpit (see figure 6.3). Kilde describes the spatial cone as one of several characteristics common to the auditorium sanctuary, derived from theatre design:

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<sup>60</sup> Published yearly, pattern books were designed as references to church building design, also presenting statistical and documentary summaries for the year. The *Congregational Yearbook* was a significant pattern book during the late nineteenth-century.

<sup>61</sup> *Perrysburgh Congregational Church*, Perrysburgh, Ohio, 1879. Lawrence B. Valk.

<sup>62</sup> *Trinity M.E. Church*, Denver, Colorado, 1888. Robert S. Roeschlaub.



To minimize visual obstructions, load-bearing walls supported ceiling and roof, dispensing with the need for interior columns except the slender iron ones that supported the galleries. Direct sightlines were enhanced by inclined or bowled floors that sloped from the back of the room down to the pulpit stage, and curved pews arranged in semicircular arcs faced the preaching stage, bisected by aisles radiating from the stage like the spokes of a wheel. (Kilde, p. 113)

Effectively, Kilde identifies the primary characteristics of the interior *Citadel* sanctuary. Slender cast iron columns support the roof; however, are not visually obstructive (see figure 6.4). To further enhance sightlines, the auditorium floor is raked<sup>63</sup>; a derivative of theatre construction. Acoustical considerations, which are a significant feature of the auditorium room, are integrated, as in the *Oberlin meetinghouse*<sup>64</sup>: "The ceiling was slightly domed, curving down to meet the top of the wall to eliminate dead corners" (Kilde, p. 53). Although seating within the *Citadel* no longer remains, historic and conjectural evidence provides a historic record.

Within the *Citadel* auditorium sanctuary, traces left within the floor indicate a radial floor pattern. These circular traces inscribed in the wood floor are a result of seat connections, which indicate seating size and capacity<sup>65</sup> (see figure 6.5). Transition in floor material indicates changes between circulation and radial seating areas; the inverted spatial cone ending where seating intersects the wall. Due to absence in seating, the type of seating becomes informed by conjectural historic documentary evidence. As indicated by Kilde, seating within the auditorium room referenced theatre style upholstered flip-up seats (2002). Traces would indicate theatre seating as a distinct possibility, as each circular floor connection demarcates an individual seat; pews would not necessitate such a number of connections. It is however possible to substantiate the social effect of fan seating, as

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<sup>63</sup> Rake refers to a sloped auditorium or stage floor.

<sup>64</sup> *Oberlin Meetinghouse*, Oberlin, Ohio, 1844. Richard Fifield Bond. During this time, revival strategies were minimally incorporated into the church interior. However, acoustic considerations remained significant.

<sup>65</sup> The combined interior spaces maintained a capacity to house 180 people. The size and distance between the radial traces suggests compactness in spatial use.

maintained by Kilde, 'watching and evaluating the behavior of other worshipers was natural'. Voyeurism was further intended to encourage a sense of equality amongst the congregants (Kilde). This social effect effectively describes the relationship of surveillance and balcony seating.

According to Kilde, an upper gallery was characteristic within the auditorium sanctuary: "In many instances, a gallery encircled the audience space, embracing the sanctuary like huge arms" (2002, p. 113). The *Citadel's* sanctuary at one time contained a gallery; the remaining physical artifact of the original gallery is an unusual inverted cast-iron beam, which spans the width of the rear sanctuary (see figures 6.6, 6.7, and 6.8). The gallery also contained descending segments as evidenced in the angular traces outlined on the north and south walls; where balcony and wall formed a connection (see figures 6.9 and 6.10). Photographic and written evidence describing the gallery is non-existent. Kilde maintains that although numerous variations of the gallery exist, the inverted shape remains characteristic; its unusual form attributed to the social effect of surveillance, as characterized within several churches constructed within the same timeframe as the *Citadel*. For instance, within the *First M.E. Church*<sup>66</sup>, the gallery assumes an oval horse-shoe form encircling the sanctuary (see figure 6.11). An alternative variation is the *First Congregational Church*<sup>67</sup> which featured a gallery characteristic to that of the *Citadel's* (see figure 6.12). Adapted to church use, the *Tabor Grand Opera house*<sup>68</sup> illustrates the reciprocal relationship between church and theatre; the opera house is also characterized by a curvilinear gallery (see figure 6.13). Notions of surveillance and voyeurism, which

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<sup>66</sup> *First M.E. (Lovely Lane) Church*, Baltimore, Maryland, 1884. Stanford White.

<sup>67</sup> *First Congregational Church*, Minneapolis, Minnesota, 1888. Warren H. Hayes. The interior *Akron Plan* featured a diagonally conceived sanctuary; although the gallery is characteristic of the *Citadel*, further elements of the *Akron Plan* are not.

<sup>68</sup> *The Tabor Grand Opera House*, Denver, Colorado, constructed in 1881 and adapted to the *Trinity Methodist Episcopal Church* in 1881.

provide basis for salient features such as gallery and spatial cone significance, also inform the performer-spectator relationship.

The performer-spectator relationship is derived from theatre references, and can be described in the reciprocal adaptation of theatre-to-church use: "The theatre-cum-chapel retained the prominent features of the relationship between the actor and the paying audience in which the performer had use of a large stage to attract the attention of the spectator and the audience's needs were paramount" (Kilde, 2002, p. 33). Whether preserving or anticipating the use of theatre form, the church essentially adapted the social status of theatre and thus the spatial relationship between performer and spectator (Kilde). Preceded by a shift from an elevated pulpit to adaptation of the stage, Kieckhefer in, *Theology in Stone*, identifies the traditional role of the preacher as evolved to that of actor (Kieckhefer, 2004). Koerner describes the effect of reciprocal voyeurism, achieved by: "placing the secular ruler where he could see, and be seen by, his subjects" (2004, p. 421). Sharing the role of performer with musicians, theatre precedent also spurred vertical division of the stage, which became prevalent in auditorium sanctuaries by the late nineteenth century (Kilde). The *Citadel's* sanctuary retains this vertical division, featuring an elevated performance area at gallery level on the rear stage wall. This division is intended to create a distinction between clerical and musical performance, as featured in *Plymouth Church*<sup>69</sup> (see figure 6.14). Kilde identifies the choir loft as typically retaining separation by panels, railings, or curtain, as integrated in *First Presbyterian Church*<sup>70</sup> (see figure 6.15). The stage was also characterized by the proscenium arch; dually used within church and theatre to visually frame the performance (Kilde). Church prosceniums however, were more unassuming in nature than its theatre proscenium counterpart, as in

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<sup>69</sup> *Plymouth Church*, Brooklyn, New York, 1850. Stephen M. Griswold.

<sup>70</sup> *First Presbyterian Church*, Chicago, Illinois, 1874. Philo Adams Otis.

*First Congregational Church*<sup>71</sup> (see figure 6.16). Further distinguishing the church proscenium from that of the theatre was its indistinct function. In that, creating a distinction between preacher and congregation was counter to theoretical unification and the communal sanctuary. Within the *Citadel* sanctuary interior, there exists no evidence of the proscenium arch. However, Kieckhefer establishes that despite elements such as the arch and static worship space to emphasize interaction between preacher and congregation, the role of the performer remained more clearly defined than that of the congregants. Thus, the ambiguous nature of communal unification inevitably substantiates the role of the theatre. In that, performer spectator separation and focal emphasis on the stage are fundamental.

Interior architectural elements within the *Citadel* remain, significant to the historic record. During the late nineteenth century, the tripartite effect, characterized by a wainscoted lower wall, and a crown or frieze which defined the upper wall, was common in the auditorium sanctuary (Kilde, 2002). This effect is prevalent throughout the interior *Citadel* (see figure 6.17). Kilde notes that these interior elements were a derivative of the *Aesthetic Movement*<sup>72</sup> in that, interior elements reflected 'sacred themes of the natural world'. Subsequently, natural colors within interior auditorium sanctuaries were used such as: 'browns, ambers red, and greens' (Kilde). Peeled paint within the interior *Citadel* reveals layers of amber, green and red color. As historic artifact, the colors correspond to Kilde's historic description of the sanctuary although it is not possible to ascertain which layer of color corresponds to which specific time period (see figure 6.18). However, a basis is provided.

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<sup>71</sup> *First Congregational Church*, Manistee, Michigan, 1887. William LeBaron Jenney.

<sup>72</sup> The *Aesthetic Movement* was prevalent in late nineteenth century Britain. Characterized in the fine arts, the utilitarian conception of art as useful, moral, or functional was understated. Kilde however, reinstates art and decoration as 'morally active', suggesting the value of interior elements as moral and sacralizing.

## Summary

*The unique aspect of the neomedieval auditorium church was the amazing extent to which it had manifested the religious ideals and missions of late nineteenth-century evangelicals. Perhaps never before, and only rarely since, has religious architecture so intimately paralleled ideology. (Kilde, 2002, p. 204)*

Information and historic documentation relative to the auditorium sanctuary is limited. Kilde in *When Church Became Theatre* provides a substantive resource from which to extract rationale for the auditorium sanctuary, and the interrelationship which exists between function and worship, church and theatre. Secular and sacred auditoriums possess common characteristics through associative physical, psychological, and social requirements, distinguished primarily by spiritual value. Through analysis of these auditoriums, notions of surveillance, congregational unity, mutual voyeurism and ritual become revealed; as well as relationships of activism and retreat, community and privacy, sacred and secular, and performer and spectator. Although primary sources of information documenting the historic significance of the *Citadel* are minimal, the neomedieval auditorium church serves as a model from which to conjecturally determine socio-cultural origins of space.

## *The Trust Theatre*

Given the programmatic requirements and the relationship which exists between church and theatre significant to the auditorium sanctuary, it becomes appropriate to consider the value of a contemporary adaptation of church to theatre use. Despite the clear interrelationship manifest within these auditoriums, documentary evidence which illustrates this type of contemporary adaptation is minimal. The contemporary adaptation of a historic church to theatre use will be characterized by the interior intervention for the *Trust Theatre*, Amsterdam.

*Mecanoo Architects*, a Netherland based architectural firm, was commissioned by the *De Trust Theatre Group* to adapt the interior of a former Lutheran church to a theatre. Constructed in 1793, the Lutheran's occupied the church until 1952 when the Evangelistic Lutherans merged and sold the building to the *Dutch Bank* and archives (Mecanoo, 2004). The church housed the bank until 1989, and remained vacant until it was acquired by *De Trust* in 1995.

The existing church structure is similar to that of the *Salvation Army Citadel*. In that, the church envelope is composed of brick, and the interior houses two floors and a third level hall; primarily constructed of wood (Edwards, 1999). The classicistic exterior however, retains a secular form; non-reformed denominations were restricted from displaying religious elements on church exteriors; as in the *Citadel* (Mecanoo, 2004). The wooden sculpture in the pediment is the solitary form of symbolism which references religious origins. A double colonnade of wood Tuscan columns forms the church interior (see figure 7.1). Irrespective of its successive alternation in use, the church interior retains its spatial character which is regarded as 'almost inviolable' (Edwards). *Mecanoo's* interior historic preservation strategy required reversible design intervention (Mecanoo). Thus, the church and theatre are essentially detailed as independent of one another. *Mecanoo* conceived of an 'object'; essentially a free-standing steel structure which can be removed, allowing the church to return to its previous state (Edwards). The object assumes various elements at each interior level, such as vertical circulation (see figure 7.2) and service areas (see figure 7.3). Within the auditorium, seating rests on a floating floor located between colonnaded galleries, revealing the church within the theatre (see figure 7.4). Subsequent to the occupancy of the *Dutch Bank* in 1952, an organ occupying a large area of the first level was re-housed in an alternate church (Edwards). In place of the organ, a black box theatre stage is formed by moveable black curtains which fall over existing

untreated brick walls (see figure 7.5). Appropriate to sensitive design intervention, *Mecanoo* employs restraint in altering the interior historic fabric. However, the columns are not treated according to sensitive intervention; centuries of layered paint are removed to reveal the original wood (see figure 7.6). However, *Mecanoo* is cautious with respect to the introduction of detailing which separates old and new interior elements. Subsequently, *Mecanoo's* intervention is consistent in its philosophy, achieving historic preservation of the existing fabric, providing an adaptable interior space.

### *Opportunities and Constraints of the Interior*

Several opportunities exist with respect to the *Citadel* interior. Character defining elements such as wainscot, radiators, window arches, Corinthian cast-iron columns<sup>73</sup>, curved cast iron beam, patina, traces, and pressed tin ceiling pattern are preserved<sup>74</sup> (see figures 8.1 and 8.2). Subsequently, auditoria function is preserved, socio-cultural significance, and a historic record adaptable to theatre use. The auditorium sanctuary is also characterized by a large floor to ceiling height. Entry is utilized for practices of looking, as within the auditorium. The sub-level contains an elevated platform which corresponds to the auditorium as rehearsal space, and break out space is located on all levels of the *Citadel*. However, constraints exist primarily relative to support space. Vertical circulation is provided through means of an individual staircase in the entry threshold; the original building permit confirms no provisions for a passenger or freight elevator. Negotiation of all levels through means of universal accessibility and ease of wayfinding may significantly alter the existing spatial layout and circulation. Therefore, a building addition onto the east side of the building will provide for expansion and addition

<sup>73</sup> In most European theatres during the nineteenth century, Corinthian columns were significant character defining elements.

<sup>74</sup> According to Carlson, interior decoration has been one of the theatre's most valued sources of signification throughout history. Interior character defining elements within theatre design intervention are preserved, in addition to significant sources of accrued value.

of support space and amenities such as vertical circulation, washrooms, dressing rooms, storage, and extension of performance space.

Socio-cultural relationships between church and auditorium interior space have been identified; Kilde in *When Church Became Theatre*, however does not identify constraints relative to theatre support space. In that, the church altar becomes used as performance space, adjacent support spaces are not provided for backstage space. Offsetting this need, addition to the East façade provides expansion of interior support space. Design intervention of the *Citadel* will subsequently provide a contemporary theatre use, preserving interior character.

## **H u m a n   A s p e c t s**

### *U s e r   P r o f i l e*

The primary owner of the *Citadel* intervention site is the *Center for Indigenous Environmental Resources*. Identification of *CIER* as occupying the adjoining *Lechtizier Building* for project brief viability, the *Citadel* will subsequently house a small scale theatre venue; a multiple use, leased facility. The primary user brief will be characterized by multiple user groups as identified according to salient features; such as, demographic information, social relationships, psychological characteristics, behavioral needs, and activities. These salient features are significant in that, the extent to which a venue is adaptable must be determined without compromise to its primary purpose and historic interior integrity of the building (Ham, 1987). These primary multiple users will subsequently economically maximize venue use through concurrent use of the interior (Ham). The secondary user, the spectator, will also be identified and differentiated according to these salient characteristics.



### Primary User Profile

The primary users of the theatre venue are the performers or multiple performance groups, and the resident staff<sup>75</sup>. The multiple performance groups consist of small non-profit theatre companies and performing arts groups; ranging in geographical distribution from local to visiting performance groups<sup>76</sup>. As identified by Carlson, theatres within entertainment or theatre districts or those which are located within the same geographical distribution possess similar characteristics and subsequently, an associative type of theatre offering (1990). Within *Winnipeg's Theatre District*, large-scale productions such as musicals, theatre, ballet, and opera are typical. By creating a public image of that of the small-scale non-profit theatre; a programme distinct to that of the *Theatre District* is created. Primary functions include intimate drama, staged readings, and experimental or contemporary plays<sup>77</sup>. Secondary functions include dance, poetry, comedy, workshops and small musical events<sup>78</sup>. Given the activity types, Ham identifies the corresponding typical associational number of performers or primary users as no greater than 12<sup>79</sup> (1987). Due to venue scale, the resident staff consists of one on-site theatre technician; responsible

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<sup>75</sup> According to *Statistics Canada*, the significance of volunteers in small theatre venues is indicated by the number of volunteers which surpassed the number of paid persons within performing arts companies in 2003. However, *Statistics Canada* does not identify the nature of their position and responsibilities.

<sup>76</sup> *Statistics Canada* identifies touring Canadian performing arts companies as on the increase within Canada and abroad.

<sup>77</sup> As of 2001, *Statistics Canada* identifies theatre as accounting for the greatest revenue in Manitoba, followed by dance, music and opera. Theatre attendance also increased in all Canadian provinces excluding Alberta. As of 2003, total Canadian revenue for non-profit companies increased by 10%, indicating growing interest for the live arts, entertainment and recreation sector. Data is derived from the *Survey of Performing Arts*; a survey which monitors developments of non-profit professional live arts companies. The performing arts within the context of this survey refers to live theatre, opera, dance and music; orchestras, ensembles, and choirs.

<sup>78</sup> Local events which require such a venue include the *Jazz Winnipeg Festival*, *Folklorama*, the *Winnipeg International Writer's Festival*, the *CBC Winnipeg Comedy Festival* and the *Winnipeg Fringe Festival*; where *Fringe Central*, the *Fringe Festival* headquarters is located at the *Manitoba Theatre Centre* in *Winnipeg's Theatre District*. The *Citadel* may also be affiliated with the neighboring *Chinese Cultural Centre*; currently requiring a multi-use venue facility. The *Citadel* may also be affiliated to the local *Ukrainian Cultural Centre*; often outsourcing for workshops, classes and events.

<sup>79</sup> The number of primary users for this venue type may also range from 2 to 20.

for technical support and maintenance of theatre equipment, and one general administrative house manager; responsible for box office supervision, finances, public relations, and general building maintenance.

### *Secondary User Profile*

The secondary users of the theatre venue are the spectators. Spectators are characterized as theatre communities, in which there may be a distinct individual community, or several community types (Carlson, 1990). As the intervention site is bordered by the *Theatre District*, a crossover attendance is anticipated, notwithstanding the dissimilarity in venue types<sup>80</sup> (Hill Strategies Research, 2003). However, as a given venue becomes associated to specific performance types, a venue draws an explicit cultural community; diverting others (Carlson, 2001). Carlson terms a spectator anticipated by theatrical performance a 'model spectator'; where each performance becomes oriented towards a model reader or ideal reader of the performance, a causal effect of repeating audiences (1990). In Manitoba, performing arts attendees are characterized by several identifiable characteristics. *Statistics Canada* establishes primary attendance of the performing arts as characterized by spectators aging between 15 and 30<sup>81</sup>. Performances are also primarily attended by single female<sup>82</sup> Manitobans in which attendance rates also

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<sup>80</sup> *Hill Strategies Research*, in conjunction with data drawn from *Statistics Canada*, compiled a report which examines Canadian live performance arts attendances: *Performing Arts Attendance in Canada and the Provinces*. Data is representative of 1998 and is the most current report available; where performance arts refers to theatre, symphony, opera, music and dance. Data is compiled with respect to provincial attendee characteristics such as event types, language, gender, income, education, age, marital status and variables such as attendance rates, trends and crossover attendance. Crossover attendance refers to attendees whom attend arts performances also participate in other arts activities. In Manitoba, *Hill Strategies Research* documented a high attendance rate amongst attendees for performing arts such as live arts, entertainment and recreation, in which those who attended these activities also participated in a wider scope of art forms.

<sup>81</sup> In Manitoba, there is a documented decrease in attendance rate as age also increases. Younger spectator attendance rates are on the increase due to marketing and outreach strategies; specifically within the theatre and music sectors.

<sup>82</sup> In Manitoba, women attend performances in higher proportions than men.

increase with education and income (Hill Strategies). However, attendance rates are not contingent upon income; although significant, Canadian performance organizations are also able to extend to lower income audiences (Hill Strategies). On the basis of the quantitative data and analysis, primary secondary user characteristics are identified. The venue will subsequently house an approximate 200 seat user capacity; established according to historic seating capacity and current code compliance<sup>83</sup>.

### *Social Relationships*

According to McAuley: "Theatre consists of human beings in a defined space watched by other human beings, and it is this reality that constitutes the basic apparatus of theatre" (1999, p. 245). The distinguishing attribute of theatre is that it is embedded in social reality. As performers and spectators are physically present to one another, the theatre constitutes three social relationships which are dependent on this physical reality.

#### *Spectator/Performer Relationship*

The spectator and performer are distinct and independent in nature. However, through simultaneous presence and confrontation, their relationship becomes interdependent (Carlson, 1989). McAuley describes theatre as establishing social relationships; also referred to as 'a play of looks' (1999). The primary look characterized within the theatre is that of the spectator to the performer. This basic dialectic, which constitutes the theatre, is described by the word theatre: 'a place where one observes' (Carlson). Carlson identifies that theatre performance is often viewed as a discrete artifact of analysis (1990). Theatre performance however, is effectively one element within the total socio-cultural theatre event which also constitutes several other conditioning elements (Carlson, 1990). The spectators' experience, a relatively new field of study, has

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<sup>83</sup> In addition to theatre size, capacity is also determined by production and support facilities and factors such as stage size, scale of public areas, visual and acoustic limits, and auditorium form to stage relationship.

been viewed as a passive receiver within the play of looks (Carlson, 1990). The spectators' presence, however, is primary to continuous change and adaptation of each performance elicited through behavior and response (McAuley). Forming an active role within the theatre performance through an energy exchange or circulation of energy between performer and spectator; the spectator becomes energized by the performer (McAuley). This interaction is critical where the role of design intervention is to guide, develop, and facilitate spectator response<sup>84</sup> (Carlson, 1990). Behavioral needs such as that of socialization are identified where design intervention is to facilitate this confrontation and interrelationship. Stimulus and response within the play of looks is subsequently also elicited within the performer-to-spectator dichotomy.

#### *Performer/Spectator Relationship*

The look in the theatre that is returned is that directed by the performer to the spectator (McAuley, 1999). According to McAuley, the look that is returned by the performer is essential to theatre experience. In that, live theatrical experience differs from that of film projection theatre, spectators arrive at each theatre experience with a different set of expectations; the live presence of the performer imparting active participatory engagement, the latter, passive engagement. As described by the spectator to performer relationship, the spectator becomes energized by the performer (McAuley). Conversely, the performer also becomes energized by the spectator as the performer looks back (McAuley). The look that is returned however is characterized by a fictional look; representing the dichotomy between fiction and reality where the spectators look is

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<sup>84</sup> Spectator response is dependent on the programme and the extent to which response is to be elicited. For example, spectator response is dependent on spatial character or the effect of the degree of encirclement; where, an open stage form elicits greater spectator response and interaction than that of the traditional proscenium stage. Design intervention for the *Citadel* does not require a high degree of response such as that elicited by performer and spectator containment within the same interior space. Subsequently, a low degree of response as elicited by total separation of performer and spectator is also not required.

embedded in social reality: "The spectator's flashing eyes are real, while the actor's smile is acted, and the seduction of the spectator is equated with that of the fictional characters" (McAuley, p. 263). This fictional look is also present within the performer-to-performer interplay within the presentational space. Therefore, this oppositional reciprocity of fiction to reality may be developed in relation to the sacred-to-secular relationship, as characterized within the *Citadel's* previous historic interior use. However, McAuley ascertains that the look that is returned by the actor is subsequently dependent on the material conditions of vision of the theatre; sightlines, size and seating capacity may facilitate or impede the interchange of looks. For instance, McAuley describes the relationship of lighting to the play of looks; in that, blacking out the audience during a performance essentially removes the audience, heightening the fictional reality of the performers. Subsequently, also further diminishing the communication of the look that is given by the performer, as well as the third look that is characterized within the theatre, the spectator-to-spectator look.

#### *Spectator/Spectator Relationship*

The historical record indicates that theatre as social event was a place to see as to be seen; to see the spectacle on the stage and to see and participate in the spectacle within the auditorium (McAuley, 1999). In addition to providing a space for performance, the theatre was a site for social display; primarily for a dominant social class (Carlson, 1989). In describing the theatre as a site for voyeurism, Carlson does not concede that past conditions of spectatorship are applicable in the present rather, "that present practices have their roots in the past, and that past practices can still resonate in the present" (1999, p. 269). The theatre involves an energy exchange amid spectators; a play of looks from that of spectator to spectator, embedded in social event. McAuley identifies that the presentational performance is consequently susceptible to becoming subordinate to the

social; however, the 'other' performance need not impose opposition. The relationship between performer and spectator is contingent upon factors such as the degree of manipulation and control (McAuley). As described within the performer-to-spectator look, lighting is a factor of control within the spectator to spectator relationship. Spatial character such as curved and fan seating configurations impose voyeurism of the spectator to spectator look; as is indicated by the auditorium style church (Kilde, 2002). Carlson further describes the audience as essentially functioning as a community or collective within the interpretive reading process of the performance (1990). A shift therefore becomes established from the significance and interpretation of the performance to incorporate the scope of theatre as a socio-cultural event, inclusive of the spectator-to-spectator experience. As substantiated by McAuley, the spectator/spectator look is as significant to theatre as experience as is the spectator/performer and performer/spectator dichotomy.

### *Psychological Characteristics*

*The physical theatre, as a site of the continuing reinforcement of memory by surrogation, is not surprisingly among the most haunted of human cultural structures. (Carlson, 2001, p. 2)*

The culture of memory has been described in relation to interior historic environments. Subsequently, as identified by Carlson, the theatre is also a repository and living museum of cultural memory. As concerned with recycling, repetition, and recollection, the theatre preserves and stimulates a record of historic memory.

Past perceptions and experiences of the theatre are continuously recycled, subsequently recycling cultural memory (Carlson, 2001). Carlson identifies the performance as one aspect of theatre which recurs: "One might argue that every play is a memory play" (p. 8). Although a new performance takes place, Carlson also substantiates the following: "The present experience is always ghosted by previous experiences and

associations while these ghosts are simultaneously shifted and modified by the processes of recycling and recollection" (p. 2). Here, 'ghosting' refers to historic recall; where memory is recalled in new circumstances and contexts. For instance, a performance embeds traces of other performances (Carlson). Although repetition is less apparent in theatres with a varied programme or which are not long established, negotiations with memory remain constant through traces which provide tangible records in recalling memory. Recycled traces include physical theatrical elements such as the interior, the performers and spectators, and materials as well as associational elements such as pre-existing text, or the visual and aural context in which the performance is received (Carlson). In terms of literal references to the historic record through the physicality of the theatre, McAuley refers to the *Comédie Française*<sup>85</sup> (1999). At the *Comédie*, busts of eminent dramatic authors displayed within the corridors and historic artifacts from previous performances housed in glass cases are described; of which through tangible references are used to recall the past (1999). With respect to interior design intervention, it is possible to establish literal references as described by McAuley. Figurative traces of theatrical event may also become consciously anticipated or disregarded. For instance, certain theatrical elements are consciously re-used in order to reinforce memory, the audience's previous expectations, to stimulate interpretation, and to attract a specific spectator. Carlson maintains place and the role of the interior as the most significant of these elements, where memory becomes stimulated and reinforced through specific associational place.

Past associations and memories of theatrical event in relationship to interior place also become more clearly focused and defined through a specific spectator following (Carlson, 2001). Spectators or theatre communities, of which are also repetitious, become

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<sup>85</sup> The *Comédie Française*, also known as *La Maison de Molière*, Paris, France, was established by Louis XIV, 1680. After an extensive history including several moves, the *Comédie Française* is currently housed on the Rue de Richelieu, Paris, France.

interpretive communities; developing a reception process in which memories overlap in response to the physical cumulative record of theatre (Carlson). It is possible to anticipate and design for the performer and identified interpretive community. However, design intervention cannot characterize and anticipate each individual performance. In addition to the changeable nature of the performer, the performance space essentially represents a dichotomy; as memory is established within the performance space, through its mutable quality, each memory becomes subsequently layered with another memory. The extent to which a specific performance is framed thus becomes loosely defined. As the *Citadel's* historic integrity is subsequently preserved and becomes adapted to new use, the larger role of design intervention therefore becomes a layered interpretation; framing the anticipated memory of theatre, and retaining associations to the previous historic record.

### *Behavioural Needs and Activities*

Needs for privacy and socialization relative to the theatre exist primarily in terms of the nature of revelation; the relationship between hiding and showing, the partially shown, and with presence and absence (McAuley, 1999). This duality is significant in establishing behavioural needs and activities for the performer and spectator and subsequently, physical and socio-associational thresholds within the theatre interior.

The performer and spectator relationship is shaped by the notion of separation. Where, the performer is identified with the scope of work, and the spectator with the scope of leisure (Carlson, 1999). McAuley defines this separation as a frame (1999). Subsequently, the frame or threshold can also be conceived as a boundary within the spectator performer dichotomy. For instance, the nature of the physical frame that defines the theatre is primarily functional. As in the backstage area which, in addition to separation, represents the function of appearance and disappearance; the place of the performer, as described by Carlson: "the realm of events not seen but whose effects



condition the visible world of the stage" (p. 131, 1989). Therefore, associational separation also conditions acceptable social roles. As in secondary support spaces which are inaccessible by the performer or spectator; both spaces dually establish an infringement of cultural code when one interior space is inhabited the other user (Carlson). Performer and spectator thus necessitate individual theatre access and support space independent of one another. Confrontation of spectator and performer is primarily limited to the presentational space and the fictional realm of the performer; the primary threshold of revelation.

The performer-spectator confrontation takes place at the interface between auditorium and stage. Therefore, the manner in which this interface is designed and identified is significant. Also representing concealment and revelation, the interface becomes both accessible and inaccessible to the spectator's gaze. The curtain, traditionally the material object which frames and represents this interface, is described by McAuley as a symbol of theatre (1999). Closed, the curtain becomes experienced from the outside within the spectator's sphere as an object of contemplation:

Whether the curtain is magnificent or purely functional, and whatever the further connotations of its design, its psychic function is the same: to provoke a sense of anticipation, to indicate that, although we have penetrated thus far, there is yet another threshold before us. (McAuley, 1999, p. 75)

The 'other' threshold is one of fiction and reality. In the absence of a curtain or physical boundary, the threshold remains present (McAuley). Therefore, does this signify that the curtain as object is subsequently irrelevant as physical representation of separation?

McAuley substantiates that a form of demarcation, an interface, is essential to provoking the spectator into making meaning in theatre. Thus in the absence or presence of the curtain, lighting is also a means of demarcation: "Lighting is the principal means utilized in contemporary theatre to set the hiding/revealing dialectic in motion" (McAuley, p. 76).

Design intervention will frame interior threshold within the confrontational performer spectator space, in addition to framing varying degrees of confrontation within the theatre interior.

This section has described socio-cultural relationships significant to the primary and secondary user. Performer and spectator relationships have consequently revealed several primary activities characteristic to theatre as experience. These activities include the performance given by the performer and spectator, the preparation and rehearsal for the performer and spectator performance, and the activity of performer and spectator spectatorship. The role of design intervention is thus to layer and adapt the identified social, psychological, behavioral needs, and activities of the primary and secondary user to the historic interior environment of the *Citadel*.

## **Physical Requirements**

### *Functional Requirements*

Functional requirements communicate performer and spectator end user functional needs; corresponding to contemporary design intervention of each interior level of the auditoria venue.

#### *Sub Level:*

- Rehearsal area seating: fixed seating will be required in order to accommodate rehearsal of small-scale performances.
- Storage area: storage needs will vary dependent on alternating repertory companies. Storage needs may include scenery, lighting, office, or janitorial requirements.
- Vertical circulation: one passenger and one freight elevator will be provided as the existing structure does not house mechanical vertical circulation. In addition to the stairs for spectator egress, stairs for performer egress will be provided.

- Ancillary space: the sub-level will house all remaining ancillary needs such as the mechanical room, machine room, and heating, ventilation, and air-conditioning.

*First Level:*

- Rehearsal area stage: rehearsal area stage size, which corresponds to the primary stage size, will approximate 525 sq. ft. or 48 sq. m.; the average size stage for a small theatre venue (Elder, 1993).
- Box office: the box office area necessitates division and enclosure from the entry area for security purposes.
- Administrative office: administrative office will require an enclosed space for security and privacy purposes.

*Second Level:*

- Performance area stage: the primary stage size will approximate 525 sq. ft. or 48 sq. m.; the average size stage for a small theatre venue (Elder, 1993). A layered house curtain will be required to provide flexibility between opaque and semi-transparency.
- Auditorium: fixed seating with a steep rake will be required in order to provide views of the floor-level end-stage condition.
- Dressing Area: dressing space, horizontal space, seating and storage space are included. Washroom facilities for spectator use will be provided separate from those washroom facilities used by the performers.
- Break-out areas: seating will be provided for spectator use.

*Third Level:*

- Balcony: fixed seating with a steep rake will be required in order to provide views of the floor-level end-stage condition; further corresponding to the historic balcony location.
- Break-out areas: the break-out areas are intended to function as public corridors in addition to pedestrian travel therefore, furnishings will not be provided.

*Fourth Level:*

- Technical control space: a technical control space is required in order to manage sound and lighting. Within small size theatres, the average size technical control space is 60 sq. ft. or 5.5 sq. m., accommodating one operator in order to dually manage all functions (Elder, 1993).

*Materials and Finishes**Materials*

The *Citadel* is characterized by the existing interior architectural detail, material, and paint surfaces. These surfaces are primarily composed of degraded patterning, texture, and wear from use in time, which captures the essence of historic place. Existing material surfaces will be preserved and protected by intervening with finishes which will subsequently mitigate health and safety issues. Visual interaction with the existing interior lacks restraint, requiring contemporary materials which alleviate, and subdue the visual movement of the existing interior space. Material response will provide control and visual pause, allowing the historic fabric to become expressed. Contrasting materials will be introduced through smooth, delicate, light, and transparent surfaces such as glass, wood, metals, and fabrics in order to counter the existing textured, rough, and heavy massing, forms and surfaces. Material intervention will subsequently retain a distinct identity from the historic fabric.

## *Finishes*

Application of finishes to the existing interior are intended to preserve the historic fabric while controlling and eliminating any hazards harmful to human health and safety. Subsequently, any cleaning methods used in order to prepare interior surfaces for protective finishes will undertake methods which are not damaging to the historic fabric.

### *Paint and Paint Finish:*

The objective of the treatment method used; preservation, intends to save and retain the greatest extent of existing paint permissible. Recreation or restoration of one specific paint layer will not be undertaken, which would be counter to the notion of authenticity. In terms of preparation of existing surfaces to receive a protective or paint finish, paint removal of the existing surface is often not recommended (Parks Canada, 2003). In that, although significant amounts of dirt, staining, or peeling paint should be removed, minor layers of soil protect the interior fabric (Parks Canada). Further, abrasively cleaned surfaces become difficult to clean, maintain, paint or seal.

Retention of historic paint layers is also described as a chromochronology; a historic paint analysis in which a record of paint layers within each area of the historic interior is retained where the layering sequence, formulation, and colour correspond to each period of the building's interior history (Chase, 1992). Where paint cannot be retained in place, off-site samples are recommended for interpretive purposes (Park, 1994). Subsequently, retention of historic paint is also dependent on health and safety issues of paint. Lead-based paint, which is often present in historic buildings, requires control measures. As lead was an ingredient in paints manufactured until its restricted use in 1977, it is commonly present in historic buildings and contact is therefore continued (Park, 1994). Although the most recent layer of paint may not be hazardous, historic layers may contain lead. Program intent is thus to mitigate and control the hazard while retaining the

material in place. Varying degrees of intervention are dependent on use, historic significance, and condition of interior surfaces. Mandated interventions are stipulated for residential buildings however removal is rarely required in non-residential buildings (Park). Total removal of lead-based paint and selective replacement and replication will not be undertaken; which would be damaging to the historic interior fabric. Off-site paint removal and stripping will also not be undertaken as removed elements often do not survive abrasive techniques (Park & Martone, 1990). The primary strategy will be the least degree of intervention which involves the encapsulation of surfaces with new materials (Park & Martone). This strategy involves managing the paint in place through encapsulant coatings which are paint coatings such as clear resins which encase the existing paint, or rigid encapsulants such as drywall cladding, appropriate in non-significant areas. Subsequently, well maintained surfaces with top coats of lead-free paint are controlled. A greater degree of intervention, paint stripping of surfaces in place, may be required in areas of severely deteriorated paint. These areas are selective however as the historic finish and its corresponding substrate may be damaged (Park). Areas of interior risk include friction surfaces such as operable windows, doors, and high impact surfaces such as baseboards or door jambs, and projecting surfaces (Park). Encapsulant coatings within these areas will seal residual lead-based paint in place.

Within areas where new paint may be introduced, glazes are recommended for protective coatings as they were often used historically; therefore, their use can approximate and maintain an appearance of historic accuracy (Chase, 1992). In terms of the introduction of new paint applications, acrylic waterborne paints or latex paints are recommended for color retention properties where fading is minimized (Chase, 1992). New paint surfaces and colour will be minimally introduced as the interior historic character is described within the existing paint surfaces.

### Cast Iron:

The significance of cast iron has been historically demonstrated. In that, it was used intensively during the industrial development of 19<sup>th</sup> century America for its ornamental, structural and fire and corrosion resistant properties (Waite, 1991). Specifically, during this time, cast iron columns were first introduced in theaters and churches to function as balcony support (Waite). This use and the ability of cast iron to be cast in various forms are demonstrated within the *Citadel*; where a curved cast iron beam was used to support a balcony. Cast iron Corinthian columns further structurally and decoratively provide historic significant elements within the *Citadel* interior.

Cast iron as a material is an alloy with a high carbon content which is resistive to corrosion (Waite, 1991). Therefore, in terms of deterioration, problems often include oxidization or rusting of the material as a result of exposure to moisture and air. Cleaning, painting and maintenance techniques are intended to control corrosion. As identified by Waite, the most common method of preserving cast iron is to maintain an alkyd based protective coat finish which does not require special off-site application conditions, and which further does not oxidize such as water-based or latex paints. Alkyd rust-inhibitive primer and alkyd finish coats are also appropriate for previously painted surfaces, such as within the *Citadel*. This maintenance program is intended to maintain the cast iron as an identifiable interior element which is historically significant.

### Wood:

According to the original building permit, pine wood was used within the *Citadel* interior. Pine was commonly used within historic interiors; where, pine was preferred as it was economical, readily available, and easy to work with (Shivers, 1990). In terms of finish, pine was historically often finished with opaque coatings such as paint or stain, in order to render the wood with greater distinction (Shivers). Existing wood within the

*Citadel* interior is finished with paint; where these areas include stairs, banisters, wainscot, trim, flooring, walls and the presentational space. However, as described by Shivers, use of wainscot for aesthetic purposes was secondary to their insulating properties, retaining heat within the interior. Existing pine will remain painted as originally intended. Subsequently, new wood introduced within the interior will be coated with a clear or natural finish such as water repellents and fire-retardant coatings in order to protect existing wood from decomposition, wear and moisture; also contrasting to that of the existing material. As the condition of certain flooring areas are damaged or rotted, these areas will be patched with new flooring, distinct from the original wood. Wood used within the presentational space however, will be stained dark in order to omit light reflection.

#### Pressed-Tin Ceiling:

At the turn of the century, stamped tin metal sheets were primarily used for commercial and institutional buildings. However, although commonly described as tin ceilings, pressed metal ceilings were composed of sheet iron or steel (U.S. Department of the Interior, 1980). Pressed sheets used within the interior were painted for protection against deterioration. Subsequently, they were further stamped with designs of which more than 400 patterns were available during the height of their popularity, throughout the first two decades of the twentieth century (Shivers, 1990). In addition to its aesthetic purpose, sheet iron was used within the interior for fire protection (U.S. Department of the Interior). Therefore, the existing ornate ceiling pattern, which is significant in defining the *Citadel's* character, will be retained. Panels which are deteriorated will require replacement while remaining areas will be repainted. In order to repaint, the existing surface will require preparation and cleaning: rust, dust, oil, and grease may not be present before both priming and painting (U.S. Department of the Interior). Where, the



primer is essential as a bonding agent in order for paint to adhere to the substrate or existing tin ceiling. Correspondingly, areas which require repainting will be finished in the identical color as the existing ceiling.

#### Plaster:

Flat plaster on wall and ceiling surfaces were used within ancillary areas of the *Citadel* interior. The technique, plaster on lath, involved joining plaster by means of an adhesive bond to lath (Shivers, 1990). Wood lath, a frame made up of vertical wood strips creating openings through which plaster is pressed, is used within the *Citadel*. As wood is susceptible to moisture, areas within the *Citadel* are characterized by exposed lath and cracked plaster due to wood expansion. Subsequently, areas where more than 50 percent of plaster is deteriorated or absent require total removal and replacement (Shivers). Where possible, exposure of wood lath will be retained as these areas recall historic construction techniques. Areas which are unsafe will be re-constructed however, with contemporary material such as metal or wire attached to framing for reinforcement; as wire is resistant to rot and provides finer connection for plaster (Shivers). Substitute materials will also be used in areas where contrast is required to clearly distinguish from the original wall or ceiling surface.

### *L i g h t i n g*

The proposed lighting strategy for the interior *Citadel* is to acknowledge the integrity of the original lighting condition in order to preserve interior spatial experience; however, to introduce contemporary lighting will be introduced within the historic interior. As the use of the existing interior space is adapted to a similar use, the existing lighting condition also becomes adapted as a lighting strategy for contemporary use.

At the turn of the 20<sup>th</sup> century, natural light was the most authentic form of illumination used in buildings (Moss, 1988). At that time, artificial lighting was spurred by

developments in electricity where electric lighting became available in the 1880s and 1890s (Moss). However, electric lighting was not a dependable source until the tungsten-filament bulb became available in the 1920s. Subsequently, interiors were furnished at the turn of the century with combination gas-electric fixtures (Moss). These fixtures were termed 'gaselier-electroliers'<sup>86</sup>. As historic interiors often retain fixtures varying from differing timeframes, design intervention and retention of fixtures is dependent on the technology which continues to be in place. Thus, within the *Citadel*, as the earliest technology and several original gaselier-electrolier fixtures remain, this timeframe will be respected. These fixtures are also located with reference to the original character defining elements where, contemporary lighting intervention will be considered with reference to historic timeframes.

Within the existing *Citadel* interior, it is possible to determine the original lighting strategy through primary documentary evidence. Within the interior church auditorium, the original ornamental pressed tin ceiling pattern and pendant light fixtures remain from the earliest occupancy. The original ceiling pattern indicates a distinct symmetrical grid and thus, a specific lighting strategy. In that, the ceiling centre is anchored by a prominent pendant fixture where the ceiling pattern radiates outwards on an orthogonal grid towards the ceiling edges, also interspersed by smaller size pendant fixtures. As per the *Standards*, the recommended approach with respect to interior features and finishes is the following: "Preserving interior features and finishes that are important in defining the character of the building" (2003, p. 41). Where, light fixtures are established as significant to describing interior character. As several fixtures are absent, it is possible to conjecturally determine their previous location and light source. Further, at the time of building construction, it is

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<sup>86</sup> A gaselier-electrolier is an electric lighting fixture which adapts a suspended fixture of gas burners or 'gaseliers' with the addition of electric lights.

also possible to conjecturally determine that light levels were low and were not uniform. Subsequently, supplemental ambient and task lighting will be introduced without significantly altering the original lighting condition. Lighting which is similar to historic intent and which meets modern use requirements will retain an overall sense of authenticity; however, reproduction or replication of historic lighting fixtures will not be undertaken in order to preserve interior authenticity.

Within the theatre auditorium and the primary entry and vertical circulation area, lighting strategy is significant to the experience of historic space. Extension or supplementation of the existing lighting condition within these interior spaces may be achieved through varying intervention strategies. Supplementation of existing lighting may be undertaken by lighting original fixtures that are wired for electricity, where possible. Where not possible, lighting may be achieved by concealing inconspicuous light sources from the same location as historic light fixtures or within other architectural elements such as moldings. Supplemental lighting thus does not significantly alter the appearance of the light fixture artifact, creating a lighting condition similar to that of the past. In terms of illumination, lighting must also function at modern levels without significantly altering the interior appearance of space; ambient levels of illumination will be reduced as higher levels of illumination are not required within these spaces. Lighting must also be considered in relationship to the preservation of existing materials, capturing the manner in which floor and wall surfaces were historically perceived and expressed.

As primary programme intent is interior historic preservation, lighting will be developed within the historic interior environment; where as the new addition, which primarily consists of ancillary support space, lighting intervention will not be developed. According to the *Illuminating Engineering Society of North America*, the primary intent with respect to theatre lighting is to light a three-dimensional subject for the eye (1993).

Further, theatre lighting is also based on production needs where, the venue will be used for small-scale drama, dance, choral, and variety productions. Stage lighting therefore requires changeable lighting conditions adaptable to various presentation types, qualities, quantities, movement, form composition, and effects (Illuminating Engineering Society of North America). Stage light sources, which primarily consist of tungsten-halogen lamps, are used to light the forestage, acting areas upstage, and downstage, stage floor, stage wings, and scenery (Illuminating Engineering Society of North America). Subsequently, the theatre auditorium is designed in relationship to church auditorium lighting, the historic occupancy. Church lighting, which is designed primarily with consideration of daylight, utilizes electric lighting to supplement daylight (Illuminating Engineering Society of North America). Sources of daylight within the *Citadel* come from the north and west façades, which will subsequently be used for ambient daylight illumination. Needs for auditorium theatre lighting are similar to needs of auditorium church lighting. These needs include lighting for areas and activities such as reading tasks; congregation and leadership, and spectator performer task reading. Correspondingly, accent lighting for speaker and performer focus, and ambient illumination are also required. This interrelationship can be used to determine the nature of contemporary lighting design intervention.

As described by the *Illuminating Engineering Society of North America*, energy management is critical to new and existing buildings where lighting consumes 20-25% of total energy used in buildings (1993). Theatre lighting control systems, which make extensive use of memory, require accurately timed faders and must be capable of complex simultaneous operations (Illuminating Engineering Society of North America). Preset switches, which are based on dimming systems, allow control of lighting in each room and suite of rooms according to preset scenes (Steffy, 2002). Preset switching will be used to establish scenes for each auditorium function such as performance, intermission, rehearsal,

and cleaning. Lighting will also be grouped within ancillary areas to accommodate common functions such as lobby, circulation, and break-out areas. Spectator procession and the corresponding transition between each space, are significant to theatre experience where the pattern of luminances directs and influences traffic flow (Illuminating Engineering Society of North America). This procession will be characterized by reduced lighting levels as the spectator proceeds from the primary entry to the auditorium. Subsequently, the experiential sequence groups similar activities and visual tasks in order to maximize energy efficiency, otherwise known as 'task tuning' (Illuminating Engineering Society of North America). Therefore, energy conservation will also be achieved where lighting is operational only during use. Daylight will be maximized as ambient light and supplemented by additional task lighting. Daylight controls will further reduce energy consumption by decreasing electrical light levels where daylight is sufficient (Karlen & Benya, 2004). In terms of energy efficacy for lighting applications, Steffy recommends high efficiency, long lasting, white-light-producing lamps. The following table identifies recommended illuminance values for general and task lighting within the *Citadel* interior according to primary areas and activities, as recommended by Gordon (2003) and the *Illuminating Engineering Society of North America* (1993):

Recommended Illuminance Values					
Area/ Activity	Range of Illuminances		Weighting Factor*	Recommended Illuminance	
	Lux	Footcandles		Lux	Footcandles
Auditorium**	100-150-200	10-15-20	-2	100 lx	10 fc
General offices	200-300-500	20-30-50	-1	300 lx	30 fc
Corridors	100-150-200	10-15-20	-2	100 lx	10 fc
Lobby	100-150-200	10-15-20	0	150 lx	15 fc
Ticket counter	500-750- 1000	50-75-100	-1	750 lx	75 fc
Break-out areas	100-150-200	10-15-20	-1	150 lx	15 fc
Display	200-300-500	20-30-50	-2	200 lx	20 fc
Elevators	100-150-200	10-15-20	-2	100 lx	10 fc
Stairs	100-150-200	10-15-20	-2	100 lx	10 fc
Washrooms	100-150-200	10-15-20	-2	100 lx	10 fc
Storage	50-75-100	5-7.5-10	-1	75 lx	7.5 fc
Loading	-	-	-	200 lx	20 fc
*The weighting factor is significant in determining the specific recommended illuminance within ranges of values; where ranges of illuminances are established according to each area or activity. Weighting factors include room and occupant characteristics such as occupant age and room surface reflectance, and task and worker characteristics such as worker age, speed and accuracy and task background reflectance (Illuminating Engineering Society of North America, 1993).					
**The auditorium requires varying illuminance values for differing visual tasks such as reading, or viewing. Illuminance values are therefore modified according to activity and pre-determined by preset scenes.					

Within the theatre, spectators must move from bright to dark spaces. Thus, as described by the *Illuminating Engineering Society of North America*, speed and accuracy within these spaces are less critical factors than the brightness transition and subsequent experience of the theatre. The table essentially describes the recommended illuminance levels for each interior space and the corresponding developing procession which arises as a result of the reduced illuminance values.

### *Building Systems and Technology*

In order to preserve interior character and experience of the *Citadel*, basic needs and building technology such as heating and cooling, and vertical circulation systems will be provided. However, as sophisticated systems were not historically available, where viable, the use of special systems will be minimized. Visible features of historic mechanical systems such as radiators and vents will be preserved, as per the *Standards*.

New systems will be located in areas which do not compromise interior character, such as within the new building addition.

#### Vertical Circulation:

As the original *Citadel* design did not provide for elevator use, design intervention will integrate elevators as a means of vertical circulation and universal accessibility. A telescopic holeless hydraulic passenger elevator will be used for vertical circulation as the above-ground use eliminates drilling and is appropriate to a medium-rise historic building application such as the *Citadel*. Minimum size requirements will further correspond to wheelchair or universally accessibility. Subsequently, a telescopic holeless hydraulic freight elevator will also be located within the building addition. Where, the freight elevator will be located adjacent to the loading dock area, providing ease of loading for performer use.

#### Electrical and Plumbing Systems:

Repairing, upgrading, or replacing existing electrical and plumbing systems requires sensitivity of the existing historic fabric. Strategies include accommodating these repairs within areas of minimum significance, and simultaneously installing electrical and plumbing to minimize opening of walls (Shivers, 1990). Further, locating cables within imperceptible and accessible areas such as cavities above the pressed tin ceiling, areas between joists, and where conduits can be hidden within or along the edges of character defining elements such as molding, baseboards, trim, or wainscot.

#### Heating, Ventilation, and Cooling:

The primary goal with respect to heating, ventilating, and cooling a historic building is to achieve a balance between preservation objectives, and interior climate building needs. Existing mechanical systems must be assessed as the application of contemporary standards for interior climate controls may prove detrimental to the

building's historic fabric (Waite, 1991). In that, structural systems are weakened, moisture may be introduced into the building, historic features, finishes, materials, and spaces are removed or significantly altered in order to accommodate new systems and subsequently, the life of historic materials is decreased. The introduction of modern systems and sealing of windows further adversely affects building performance, and it is inadvisable to install or substitute with a new system as space for the system source and duct system is often insufficient<sup>87</sup> (Waite). Recommended strategies include retaining and upgrading existing mechanical systems and improving energy efficiency of the existing building; rendering the building functional, and minimizing damage to the interior. Within the existing *Citadel*, a hydronic water system was used where pipes delivered water to radiators and temperature control is zoned. By the late 19<sup>th</sup> century, steam and low pressure water radiator systems which combined heating and cooling were prevalent residentially and commercially (Waite). Existing mechanical systems within the *Citadel* are located below sub-level within an independent and accessible space; radiators are located below windows and adjacent to perimeter walls throughout the existing interior. In order to reuse the air climate control system, new boilers and circulating pumps can be used to upgrade older systems, and historic radiators can be reconditioned (Waite). The structure will also be rendered more energy efficient by integrating vapor barrier in order to control moisture migration, thermally efficient windows, and installation of wall and basement insulation, in addition to the area located beneath the roof. Consequently, the least degree of intervention is established while providing occupant thermal comfort and safety.

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<sup>87</sup> Mechanical systems require upgrading or replacement every 15-30 years, which may further significantly alter the interior historic fabric.



### *Health and Safety Issues*

Historic buildings and their corresponding historic interior environments were often designed and constructed prior to the establishment of contemporary building policies or were designed according to moderate standards. Subsequent preservation and adaptation of a significant interior to restrictive requirements becomes subject to evaluative measures in order to ensure primary consideration of preservation. Thus, evaluative measures establish the effect of current code requirements, barrier-free access and universal design issues which may conversely inhibit preservation (Tyler, 2000). As identified by *The Secretary of the Interior's Standards for Rehabilitation*, accessibility requirements and code compliance are often not a significant factor within the process of interior historic preservation and subsequently, become assessed according to their 'potential negative impact on the building's historic character' (Morton et al., 1997). Further, these requirements are also not a significant factor within design intervention to preserving character-defining features (Morton et al.). Subsequently, the greater the degree of design intervention, the greater the degree of code compliance and accessibility considerations; and conversely, the greater the degree of interior integrity and preservation, minimal requirements are determined. These considerations are therefore achieved through minimal intervention, providing the greatest achievable degree of compliance with the lowest degree or effect of intervention to the historic interior. Potential strategies for intervention include reversible intervention, where intervention related to building code requirement, barrier-free access, and universal design may be removed or are entirely reversible, returning the existing *Citadel* interior to its original condition (Parks Canada, 2003). Where reversible intervention is not possible, required functions and services are located in existing non-character defining interior space (Parks Canada). Independence of user negotiation of the interior is also advocated by the *Standards*. Similarly, interior

negotiation and ease of wayfinding should transcend the need for reliance of signage, which correspondingly should not diminish interior historic character (Ham, 1987). Specifically, with respect to the *Citadel*, the structure is characterized by a multi-level interior which necessitates access to all levels without significant alteration of the existing historic fabric. Due to the multiple and intermediate levels, location and provision for new vertical circulation may be located within an addition and connection to the existing shell, as historically, no provisions were provided for vertical access in addition to existing stairs. As the historic value of the *Citadel* interior exceeds total compliance of building requirements and the potential for full code and accessibility compliance is unachievable, minimum requirements will be followed which are determined according to special provisions for historic interior environments, subsequently minimizing the level of interior intervention.

#### *Building Code Analysis*

The *Manitoba Building Code* provides basis for code analysis and minimum health, safety and structural requirements for design intervention of the existing *Citadel* interior and its corresponding proposed use and occupancy. Proposed use according to the *Code*<sup>88</sup> is classified according to its major occupancy. In that, interior theatre intervention of the *Citadel* is classified as a Group A, Division 1 assembly occupancy<sup>89</sup>. Assembly occupancy thus primarily governs and guides the nature of interior theatre intervention.

#### Theatre:

- Occupancy is classified as a Group A, Division 1 major occupancy for all levels of the interior *Citadel*.

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<sup>88</sup> From this point, the *Manitoba Building Code* will be identified as the *Code*.

<sup>89</sup> Group A, Division 1 assembly occupancy refers to an occupancy intended for the production and viewing of the performing arts.

## Stage:

- Within the interior theatre auditorium, a minimum 1 hour separation is required between the stage and ancillary spaces such as the backstage area, dressing rooms, and storage. Therefore, the new addition and expansion of the first and second level east facade must conform to this standard, notwithstanding the identical major occupancy classification of both levels.
- Stage and ancillary spaces correspondingly require fire separation from the seating space. However, this requirement is negated where the opening of an unframed fire curtain is less than 66 feet or 20 meters. As the opening of both the performance and rehearsal space stage is less than the determined distance, a fire separation will not be required between the seating and performance space.
- The performance and rehearsal area each require a minimum of 2 vents above each stage; notwithstanding the non-compulsory fire separation from the seating space.

## Seating:

- Seating areas where the occupant load is more than 200 occupants require a minimum 1 hour fire separation from adjoining occupancies. Within the primary performance area, there are more than 200 occupants. Therefore, the auditorium requires a 1 hour fire separation from all secondary support spaces. Whereas, the rehearsal area occupant load does not exceed 200 occupants and will not be required to meet this code.
- Continental type seating may be used within the auditorium. In that, each row does not contain more than 100 seats; rows containing more than 100 seats require cross-aisles.

#### Fixed Bench-Type Seats Without Arms:

- Fixed bench-type seats without arms are used within the auditorium. Where this type of seating is provided, the seat width is determined as 18 inches or 46 centimeters.
- The centre-to-centre spacing between rows of bench-type seats is determined as a minimum of 30 inches or 76 centimeters with the provision of back rests. Correspondingly, a minimum distance of 12 inches or 30 centimeters is required between each seat front to adjacent seat back.

#### Balcony:

- Where the back and ends of bleacher seats do not adjoin a wall and are more than 47 inches or 120 centimeters above the floor, a guard is required. The guard must correspondingly be designed with a minimum height of 42 inches or 107 centimeters. These provisions are applicable to the balcony area within the auditorium.
- Where the seats extend to the edge of the balcony, guards must also be provided; guards located at seat fronts require a minimum height of 30 inches or 76 centimeters and those located at aisle ends or at the end of steps require a minimum height of 36 inches or 91 centimeters.
- Guard openings are further designed to limit the passage of a spherical object of maximum diameter of 12 inches or 30 centimeters.

#### Aisles:

- In places of assembly which contain fixed seats; specifically, the theatre auditorium, aisles leading to exits are required.
- Aisles leading to exits must also end in a cross aisle. The width of these cross aisles are established as the width of the widest aisle, in addition to half of the total width

of all aisles of which it serves. Indicating, that an aisle flanking the front end of the stage or performance area is required in order to function as a cross aisle; serving all aisles adjoining the seating area functioning as egress.

- Egress between rows of seating is established as perpendicular to the aisles in order to permit the use of steps located within the aisles of the seating area. Further, allowing the slope of the seating area.

#### Break-out Areas:

- Break-out areas and corridors adjacent to the auditorium also serve as access to exits. Therefore, a minimum 1 hour fire separation is required from the remainder of the building.

#### Egress:

- Where a room exceeds an occupant load of 60 people, 2 points of egress are required. Each door is to be located where in the event that one door becomes inaccessible, the second door may still provide a point of egress. As the occupant load exceeds 60 people within each level of the *Citadel* interior, two points of egress will be provided.
- As per a Group A major occupancy, the maximum distance to an egress doorway is 49 feet or 15 meters within a room or maximum area of 1615 ft<sup>2</sup> or 150 m<sup>2</sup>. This stipulation is applicable where, for example, the distance from a fixed seat within the auditorium to a doorway should not exceed this distance.
- In terms of egress, a dead end corridor may be provided only where the corridor does not exceed a distance of 20 feet or 6 meters. A look-out platform is projected to be located within the second level of the south entry area where the existing platform measures 11' or 3.4 meters, this dead-end condition may be provided as the maximum distance is not exceeded.

## Doors:

- The code stipulates that all doors must swing in the direction of exit travel. Further, all doors providing access to exit within a public corridor should not open directly onto a step. This condition occurs within the second level west corridor where, a set of double doors open directly onto the steps within the area of primary vertical circulation egress. In order to comply with safety regulations, an intervention strategy is required where these doors may be retained.

## Occupant Load:

According to the following area take-offs;

Sub Level:	4503 ft <sup>2</sup> or 418 m <sup>2</sup>
First Level:	1773 ft <sup>2</sup> or 165 m <sup>2</sup>
Second Level:	6276 ft <sup>2</sup> or 583 m <sup>2</sup>
Third Level:	6276 ft <sup>2</sup> or 583 m <sup>2</sup>
Fourth Level:	<i>The fourth level forms a partial level change within the third level</i>
Total:	18 828 ft <sup>2</sup> or 1749 m <sup>2</sup>

*Sub Level:*

-Rehearsal area: as the 1992 ft<sup>2</sup> or 185 m<sup>2</sup> rehearsal space is used by the performers, sub-level occupancy is determined in accordance with second level performance area occupancy; where, the stage for theatrical performance is determined as being occupied by an average group size of 12 occupants.

Ancillary spaces not included in the total occupant load:

-Storage area: (46 m<sup>2</sup> per person) 867 ft<sup>2</sup> or 80 m<sup>2</sup> ÷ 46 m<sup>2</sup> = 2

*First Level:*

-Rehearsal area: as the first level 1165 ft<sup>2</sup> or 108 m<sup>2</sup> rehearsal area is used jointly with the sub level rehearsal area, occupancy within the first level rehearsal area is also determined as 12 occupants.

-Box office: 1 occupant

-Administrative office: 1 occupant

*Second Level:*

-Performance area: stage for theatrical performance: 12 occupants. As identified within the primary user profile, the number of performers for this venue type may also range from 2 to 20.

-Spectator area: space with fixed seats (seat width per person is established as 18"): 202 occupants

Ancillary spaces not included in the total occupant load:

-Break-out area: Public corridors intended for occupancies in addition to pedestrian travel (3.70 m<sup>2</sup> per person): 1895 ft<sup>2</sup> or 176 m<sup>2</sup> ÷ 3.70 m<sup>2</sup> = 48 occupants

*Third Level:*

-Balcony seating: space with fixed seats (seat width per person is established as 18"): 30 occupants

Ancillary spaces not included in the total occupant load:

-Break-out area: Public corridors intended for occupancies in addition to pedestrian travel (3.70 m<sup>2</sup> per person): 1103 ft<sup>2</sup> or 103 m<sup>2</sup> ÷ 3.70 m<sup>2</sup> = 28 occupants

*Fourth Level:*

-Technical support space: 2 occupants

*Total Rehearsal Area Occupancy: 12 performers*

*Total Performance Area Occupancy (with fixed seats): 232 spectators + 12 performers = 244 occupants (3 designated wheelchair spaces required in compliance with 244<sup>90</sup> fixed seats)*

*Other: 2 administrative, 2 technical*

Water Closets:

For Group A, Division 1, theatre use;

*Sub Level and First Level:*

As the sub level does not form a complete level change, the first level and sub level function primarily as the same interior space and classification of major occupancy; where,

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<sup>90</sup> Spaces provided for wheelchair use are to be arranged according to a minimum of two jointly provided seats located along a barrier-free path of travel. Spatial requirements for wheelchairs entering upon side approach include a minimum of 34" x 60", and 34" x 48" for wheelchairs entering from a front or rear approach.

water closets are provided to jointly accommodate both levels. Water closets are provided for 12 performers within the rehearsal area, and 2 administrative for a total of 14 occupants. Where the performer group size increases to 20 users, and the rehearsal area is rented to larger groups; water closets are accommodated. Group A, Division 1 occupancy for 26 - 50 users requires a minimum of 1 male water closet and 2 female water closets. In that, a minimum of 1 barrier-free water closet is to be provided for each sex<sup>91</sup>.

Correspondingly, 1 male lavatory and 1 female lavatory will be provided.

*Second, Third, and Fourth Level:*

As the third and fourth levels do not form a complete level change; water closets will be provided on the second level to accommodate the second, third and fourth level occupant load of 236 occupants. For 236 occupants, a minimum of 5 male water closets (3 urinals, 2 water closets) and 7 female water closets will be provided. In that, a minimum of 1 barrier-free water closet will also be provided for each sex. Correspondingly, 2 male lavatories and 3 female lavatories will be provided. Separate water closets will further be provided for the spectators; where for 12 occupants, a minimum of 1 male water closet and 1 female water closet will be provided. Further, 1 male lavatory and 1 female lavatory will be provided.

*Spatial Character*

The theatre's interior spatial character is primary in determining the nature of theatre experience, in addition to providing the basic condition for the performer spectator confrontation (McAuley, 1999). Spatial character is further significant to what Carlson defines as theatre as a cultural system, where the interior is culturally encoded (1989). With respect to the *Citadel*, the interior environment is culturally encoded with historic significance and the direct and indirect memory of the past. The intent of design

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<sup>91</sup> A barrier-free water closet stall requires a minimum area of 25 ft<sup>2</sup>.



intervention is to preserve and acknowledge the spatial environment while providing basis for performance reception and response.

In theatre, spatial configurations are fundamental to establishing meaning. Few other architectural objects found in a variety of cultures have so consistent a basic spatial structure as theatre, since the very nature of theatre seems to suggest a spatial dialectic, opposing the space of the viewer to the space of the viewed. (Carlson, 1990, p. 43)

As identified by Carlson, the theatre is characterized by a fundamental and consistent interior spatial structure. Given the invariable nature of interior spatial character, design intervention becomes facilitated; as interiors are often changeable, the subsequent static nature of theatre allows greater retention and preservation of historic fabric. Further, greater contrast is achieved between historic intervention of the auditorium church and contemporary theatre design intervention, allowing simultaneous intervention where the memory of future use is anticipated and may be limited to areas separate to that of the preserved historically significant interior fabric. Historic recall of the interior church auditorium is therefore also established by direct association to the spatial relationship of the church auditorium:

The church or temple has perhaps the closest systematic architectural relationship to the theatre, since it involves the meeting of a secular celebrant with a sacred celebrated, but the sacred may be only spiritually or symbolically present, not spatially, as a player must be. (Carlson, 1989, p. 129)

Given the similarity in sacred and secular significance and interior spatial character, historic recall also inferentially reconstructs secular relationships of the church interior and spatial ritual and procession. Historic recall is however not limited to the auditorium and the primary performer-spectator confrontation, also extending to the total theatre experience. Such as, the spatial character of the interior exterior threshold and all secondary social areas.

Due to the existing fan-shaped plan form of the *Citadel's* interior auditorium, also known as 135° encirclement<sup>92</sup>, the fan, according to Ham, is at the limit of what can be identified as an end stage condition (1987). Within the theatre auditorium, the existing interior thus provides for an end stage condition<sup>93</sup> which subsequently also allows for greater interaction between the performer and spectator confrontation (Ham). As the end stage form is often characterized by an open stage and therefore, an absence of physical threshold, Carlson maintains that where there is crossover between both spaces, the spatial and psychical distance between the fictional and real dimension is to be retained and established (1990). This relationship is critical as according to Carlson, the audience comes to expect 'prepared illusions' within the theatre. The proscenium arch, the traditional means of spatial and psychical threshold, is not suitable for the end stage condition or small, narrow type venues such as the *Citadel*<sup>94</sup>. There is further no historic evidence to suggest that at any point during the *Citadel's* history a proscenium or framework was used to frame the east end of the interior auditorium. Today, the stage auditorium threshold is designed much more unobtrusively than the distinct proscenium arch (Ham). With respect to the presentational space, McAuley describes the set as determined primarily by the theatre interior than of the play, where the play also exists independently of the presentational space (1999). The presentational space essentially becomes the most varied and changeable space within the theatre interior, adapted to new

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<sup>92</sup> The 135° encirclement condition is derived from the 'point of command' theory; located center stage 8' from the stage edge, sightlines are established where the performer is able to see the total audience within an arc of vision of 135°.

<sup>93</sup> The end stage is a condition of an existing long, narrow interior and is essentially a proscenium theatre where the proscenium arch is nonexistent. Due to the absence of the proscenium arch, the end stage provides for an open stage condition where performer and spectator are located within the same interior space; establishing intimacy and contact. However, due to spatial restrictions of the existing interior shell, support space is often limited and thus, programme viability is limited to small scale theatre venue types.

<sup>94</sup> The proscenium arch establishes poor sight lines from balconies and box seats; a limitation to the *Citadel's* third level balcony intervention. Acoustically, the proscenium stage is also a volume of enclosed space, resulting in poor sound transmission.

use for each performance and subsequent user group. Design intervention is therefore to provide an adaptable and consistent space through architectural features of the presentational space which further responds to the performer spectator confrontation threshold. This duality will also be conceived through the preservation and identification of areas to be adapted for contemporary design intervention within the *Citadel* interior.

### *Spatial Requirements*

The interior theatre is comprised of primary and secondary areas which subsequently support behavioral and spatial needs and activities of the primary and secondary user. Notwithstanding theatre size, Elder identifies the following areas as essential to theatre function: the presentational<sup>95</sup> and backstage area, aisles and seating, dressing rooms, technical control area, lobby<sup>96</sup>, box office, administrative offices, and washrooms (1993). Elder further identifies optional areas, or operational areas, which facilitate the operation of the theatre. These areas include rehearsal space, offices, workshops, lounge, and storage areas. This guideline however, is contingent upon the size and type of theatre. Due to the existing character of the interior *Citadel*, a rehearsal space will be facilitated within the sublevel area<sup>97</sup>. As provision for secondary support space is also limited, expansion of the existing interior shell and adaptation of several areas for several uses and functions will offset spatial limitations. The following chart outlines and identifies the allocated square footage and overall area to support each activity or space:

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<sup>95</sup> The presentational area is identified as the interior space of which any action of a performance takes place.

<sup>96</sup> Within the *Citadel*, the lobby area and primary interior exterior threshold is spatially limited. Secondary support space or break-out areas will therefore be interspersed throughout each level of the building.

<sup>97</sup> Conjecturally, it is possible to speculate that the existing platform within the sublevel area may have been used at one time as a secondary presentational space. In addition to its primary function, the rehearsal space may be used as a second performance area; such as rental space for receptions, conferences, classes, exhibition space, shared rehearsal space with theatres within the theatre community, or as an extension of secondary support space within the *Citadel*. Configuration and basic square footage of the rehearsal presentational area should therefore be equivalent or similar to that of the primary presentational space.

<b>Sub Level</b>		
<i>Space</i>	<i>Area (sq. ft.)</i>	<i>Area (sq. m.)</i>
Rehearsal Space	1992 sq. ft.	185 sq. m.
Storage	867 sq. ft.	80 sq. m.
Mechanical/Machine Room	268 sq. ft.	25 sq. m.
Washrooms	249 sq. ft.	23 sq. m.
Break-out Space/Circulation	862 sq. ft.	80 sq. m.
Vertical Circulation	265 sq. ft.	25 sq. m.
<b>Total</b>	4503 sq. ft.	418 sq. m.

<b>First Level</b>		
<i>Space</i>	<i>Area (sq. ft.)</i>	<i>Area (sq. m.)</i>
Lobby/Circulation	197 sq. ft.	18 sq. m.
Box Office	95 sq. ft.	9 sq. m.
Administrative Office	206 sq. ft.	20 sq. m.
Rehearsal Space	1165 sq. ft.	108 sq. m.
Vertical Circulation	110 sq. ft.	10 sq. m.
<b>Total</b>	1773 sq. ft.	165 sq. m.

<b>Second Level</b>		
<i>Space</i>	<i>Area (sq. ft.)</i>	<i>Area (sq. m.)</i>
Presentational Space	906 sq. ft.	84 sq. m.
Spectator Space	1520 sq. ft.	141 sq. m.
Backstage Space	240 sq. ft.	22 sq. m.
Dressing Space	539 sq. ft.	50 sq. m.
Break-out Space/Circulation	1895 sq. ft.	176 sq. m.
Washrooms	540 sq. ft.	50 sq. m.
Vertical Circulation	636 sq. ft.	60 sq. m.
<b>Total</b>	6276 sq. ft.	583 sq. m.

<b>Third Level</b>		
<i>Space</i>	<i>Area (sq. ft.)</i>	<i>Area (sq. m.)</i>
Balcony Spectator Space	455 sq. ft.	42 sq. m.
Break-out Space/Circulation	1103 sq. ft.	103 sq. m.
Vertical Circulation	153 sq. ft.	14 sq. m.
Viewing space	3020 sq. ft.	280 sq. m.
Possibility for expansion	1545 sq. ft.	144 sq. m.
<b>Total</b>	6276 sq. ft.	583 sq. m.

<b>Fourth Level</b>		
<i>Space</i>	<i>Area (sq. ft.)</i>	<i>Area (sq. m.)</i>
Technical Control	190 sq. ft.	18 sq. ft.
<b>Total</b>	<i>*The fourth level forms a partial level change within the third level.</i>	

The combined existing 4234 sq. ft. interior sub and first level did not provide adequate square footage in order to meet all spatial requirements. The 2042 sq. ft. interior addition allows for provision of all requirements, for a total of 6276 sq. ft. Similarly, the addition, which also extends to the second and third levels; extends the existing second and third 4234 sq. ft. levels by 2042 sq. ft. As the second and third levels in addition to the partial fourth level consist of the auditorium, the total floor plan area of the combined existing interior and new addition is 14 453 sq. ft.

### *Zoning and Circulation*

Interior structure organization and arrangement and its relationship to the existing context are significant elements to the cultural processing of theatrical event (Carlson, 1989). As theatre is characterized by the oppositional spectator performer relationship, it is this dichotomy which primarily determines the nature of functional relationships and subsequently, interior experience of the theatre.

*Analysis of Functional Relationships*

As previously identified, central to the theatre is the auditorium; the primary interior space of oppositional confrontation. All remaining spaces subsequently become subsidiary to the auditorium, forming transition points or thresholds. There further exists a clearly defined separation between performer and spectator space; where, backstage areas used by the performer adjoin the presentational space however, remain unseen and separate from the realm of the spectator. Practitioner access to the *Citadel* is therefore independent to that of the spectator, preserving the fictional reality of the performer and spectator. Primary practitioner access becomes allocated adjoining private social spaces which are used to prepare for fictional roles within the presentational space. Spectator space is therefore limited to the auditorium as well as break-out spaces used primarily during the commencement and at the conclusion of the performance; these areas are subsequently allocated adjacent to primary vertical circulation points and main access to the interior. The extent to which there is crossover between performer spectator space may be attributed to the nature of the frame as established by the existing historic interior, where the performer spectator relationship is secondary to the historic frame. Correspondingly, although the performer spectator dichotomy establishes functional relationships, it is the historic interior which determines their allocation within the *Citadel*. In that, theatre auditorium allocation is established within the church auditorium and spectator to performer relationships are also established by historic sacred and secular separation and unification within interior space.

## Guiding Design Principles

### *Programme Objectives, Design Issues and Guidelines*

Within interior historic preservation, design intervention is characterized by two distinct strategies; intervention of the existing historic fabric, and contemporary design intervention. Although the primary design objective is to preserve the *Citadel* interior through intervention strategies which articulate its historic fabric; the secondary objective is to adapt a contemporary interior programme as a functioning auditoria venue to the historic interior environment of the *Citadel*. The articulated relationship between historic and contemporary intervention determine the nature of interior as experience.

Primary intervention types; preservation, restoration, and reconstruction, are commonly described independently within standards and guidelines of historic preservation. However, it is very unusual to find a historic interior environment that is 'pure' to any one treatment (U.S. Department of the Interior, 2000). As the interior is also characterized by multiple uses through time, it is further not viable to ascribe value to one period in time as more significant than another; as the memory of event is not more significant than another<sup>98</sup>. Therefore, as the total interior cumulative historic record in time is respected, a strategy of interpretive preservation will be used.

Interpretive preservation involves an investigation of the total interior historic record in time through both documentary and physical research in order to form an interpretation, as established through response of contemporary design intervention. The purpose of interpretive preservation is to demonstrate that an interpretive strategy and interior design intervention cannot be achieved without a comprehensive understanding and reading of an interior history. As a basis is substantiated through historical evidence,

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<sup>98</sup> As reconstruction, replication, and restoration are in opposition to the character of authenticity, these strategies will not be undertaken.

historic preservation does not aim to return the existing interior to a previous state however, remains within the aesthetic limits of the original design. The preservation strategy is further interpretive as allowances are made for contemporary adaptation which did not exist within the building history. Contemporary design intervention involves a contrasting approach dissimilar to that of the existing interior; characterized by a distinct identity as it is an element of its own individual time. Although new design is contrasting in nature, it remains viewed as becoming a part and extension of the historic record and therefore a layering in time.

Interpretive preservation is an inferential method of investigation. Within a preservation context, it is through interpretive methodologies which allow for the preservation of physical artifact as well as the preservation of memory. The following is a description of design principles to inform design intervention:

- Conduct an assessment of the building's interior history and related context in order to provide basis and rationale for an interpretive preservation strategy.
- Assess the value of the interior as a total cumulative record in time.
- Preserve the existing interior through sensitive intervention, stabilization, and protection in order to prolong and extend the life and living memory of physical historic artifact.
- Change and loss in time should not be accepted as an inevitable occurrence.
- Retain the greatest degree of interior historic fabric<sup>99</sup>.
- Adapt contemporary design intervention to the interior historic fabric as an additive layer, preserving original interior character.
- Retain continuity of new use, similar to that of the original intended use. In that, original interior spatial organization, character, form and memory are retained.
- Remove elements of the historic interior fabric only when harmful to the health and safety of interior users.

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<sup>99</sup> Interior historic fabric refers to any historic interior architectural features, finishes, spaces, or systems; significant in conveying an interior's physical and socio-cultural history.



- Assess the intervention site; exterior context, architecture, and interior as an integrated, consistent, interdependent whole.

By preserving interpretively, the existing historic fabric is preserved, and basis is provided for intervention. Design intervention becomes a layer which gives expression to the existing interior, allowing for the coexistence of the historic fabric and contemporary interior design intervention.

### 3. Results

The process of inquiry used for obtaining and analyzing information in order to inform design and conceptual development included methods of literature review, content analysis, conjecture analysis, case study, and a programme document. The following includes an explanation of the results and findings of each inquiry method used.

Literature review and content analysis included a review of primary and secondary information resources, and an analysis of relationships and concepts of the information collected relative to historic preservation. Findings revealed a vast knowledge base within the field of historic preservation; however an information base relative to interior historic preservation is limited. Interior literature resources are primarily founded in curatorial management, where information in the context of adaptive contemporary use is required. Standards and guidelines of historic preservation further revealed principles, practices and advised methods of design intervention appropriate to the physicality of historic artifact. However, although standards provided advised methods; values advocating the significance of preservation were not given. Associational concepts such as memory and authenticity provide value for sustaining the interior integrity of a historic building. Subsequently, it became essential to review literature beyond the scope of preservation in order to further investigate notions of interiority.

Methods of literature review and content analysis revealed that prior to establishing an interior intervention strategy within a historic building, a historic analysis of the building is significant. Where, a historic background and rationale is provided for shaping treatment decisions. Pre-conceived interpretive objectives in the absence of a historic analysis and historic report result in the loss of historically significant artifact. Subsequently, the investigation process revealed that although a basis is critical as provided through historic research and analysis; historic interior documentary evidence is

difficult to obtain and is often absent within the historic record<sup>100</sup>. Today, remaining interior historic documentation is often historic interior environments in themselves as primary records of information. Therefore, the value of preserving the historical record of memory of a historic interior environment is sustained. Within the context where primary documentary evidence is not available, conjecture-analysis provides basis for interior design intervention.

Through conjecturing, it became possible to reveal knowledge sources through secondary documentary evidence. This method was significant relative to the case study. In that, the *Citadel's* physical and socio-cultural history as a neomedieval auditorium church became revealed through, *When Church Became Theatre – the Transformation of Evangelical Architecture and Worship in Nineteenth-Century America*. However, conjecture-analysis as a methodology is only possible when drawing relationships and inferences from an analysis of facts. Where documentary evidence such as interior form, use, features, material, and a written and photographic history were absent in relationship to the *Citadel's* historic life process as a rehabilitation centre, conjecture-analysis became no longer applicable. Subsequently, as the *Citadel's* life as a neomedieval auditorium church was established as historically more significant than its later life as a rehabilitation centre; the limitations of conjecture-analysis as a methodology did not adversely affect the design inquiry process.

The programme together with the *Citadel* case study illustrates the viability of adapting a contemporary programme to a historic interior environment. Through the programme document, it was established that two distinct areas of focus require

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<sup>100</sup> For example, historic photographic material captures exterior context and architecturally significant buildings. Historically however, photography was rarely used to capture interior environments. Alternatively, photographs were used to document events of significance which came to pass within the interior.

programming; the proposed adapted use of the auditoria, in addition to programming the protection of the existing historic interior. However, the programme also revealed that within the design process, prioritization of the historic interior and its preservation take precedence to user need. In that, a contemporary use is adapted to a historic interior; a historic interior is not adapted to a contemporary use. For example, the addition to the existing *Citadel* accommodates user need and support space where, the existing interior is not compromised by integrating elements<sup>101</sup> obtrusive to its existing character. The following is a description of the design solution and interior journey through the *Citadel*, and integrated programme objectives, design issues and guidelines.

#### *Interior Design Intervention*

Design intervention begins with an addition to the existing *Citadel* structure. The addition is similar in volume to the previous *Salvation Army Stores* and is further set back in order to allow the historic structure to remain prominent (see Appendix C.1). In that the existing building is limited in size, the three level 6000 square foot addition provides for amenities and expansion of the auditorium presentational space (see Appendix C.2). Amenities include vertical circulation, storage, washrooms, loading dock and performer entry within the sub level addition, which expands the existing first and sub level interior (see Appendix C.3). The spectator entry threshold, located within the primary vertical circulation vestibule, is characterized by retention of its chromochronology encased within a glass panel; reflecting interior layering of use in time (see Appendix C.4). The dome ceiling within the entry threshold is further characterized by an existing light fixture which becomes suspended and lit from behind in order to frame historic lighting strategy (see Appendix C.5). As the spectator proceeds through the circuitous winding path from the

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<sup>101</sup> These amenities include washrooms, dressing rooms, additional vertical circulation, storage and mechanical rooms.

first level to the second level auditorium, the spectator stops at a look-out platform (see Appendix C.6). Recalling practices of looking prevalent within the theatre, the circulation also reinforces the sacred journey within the auditorium church. An incision is made to create this platform as the stairs which continue to the third level are in a degraded state; where intervention is interpretive of the existing condition rather than intervening by subtraction of an element significant to interior circulation and socio-cultural history. Within the sub-level rehearsal area, the pine flooring is further degraded. A material interface is created by replacing a section of the rotted wood with contrasting hard wood layered in the opposite direction of the existing wood flooring (see Appendix C.7). Contrast is also used where new stairs within the rehearsal space are layered over the existing stairs (see Appendix C.8). Comparatively, continuity is retained where the existing joists and beams within the sub and first level rehearsal area remain exposed (see Appendix C.9). Bare bulbs as lighting strategy are suspended from the ceiling in order to reflect the martial qualities of the *Salvation Army* (see Appendix C.10).

Within the second level auditorium, auditorium seating is created as an interior within an interior; separate from the existing walls (see Appendix C.11). Sight-lines are located between columns which are correspondingly not visually obstructive. Third level seating is also floated within the historic interior walls, as is the fourth level technician booth (see Appendix C.12). Second and third level break-out space is treated similar to that of the rehearsal space, recalling the *Salvation Army* (see Appendix C.13). Glass cases located within the break-out areas further contain historic artifacts from previous performances, as an explicit form of harboring direct memory. Indirect associational memory is ascribed through notions of ritual. Whereby, in the Western-Eastern sacralizing movement through the auditorium, the spectator becomes aware of the historic circulation path and spatial cone which is retained (see Appendix C.14). These traces are retained

beneath the auditorium seating construction, as seen within the North-South section (see Appendix C.15). Seating is essentially detailed as a large stair, where the second and third level seating platforms are connected to the architecturally significant curved cast iron beam with stringers (see Appendix C.16). Where, the beam however, remains separate from new interior design intervention. This beam is significant as its curved shape, which represents practices of looking prevalent in both church and theatre design, also dictates the curved seating. Thus, contrast is also used within the material interface of cork flooring and the existing auditorium floor traces (see Appendix C.17). Within the presentational space, the performer spectator relationship is recalled by intervening with transparent screens which flank the primary presentational space; allowing the performer to become visible in preparation for the performance (see Appendix C.18). As the opaque curtain moves, the back-stage area slowly becomes hidden (see Appendix C.19). The opened curtain reveals only the presentational space, concealing the transparent screens (see Appendix C.20).

The auditorium ceiling is defined by a symmetrical pressed tin ceiling pattern (see Appendix C.21). Where, uplighting is used to further define areas of significance (see Appendix C.22). Uplighting may further be used interchangeably to create several lighting patterns (see Appendix C.23 and C.24). Downlighting is also incorporated within areas of non-significance (see Appendix C.25). As the spectator returns to the entry vestibule, light levels correspondingly increase, recalling the sacred to secular historic interior journey.

#### 4. Conclusion

Interior resources require established sensitive practices and techniques for their integration within historic buildings. However, the determinant of interior historic preservation is to demonstrate the relevance of interior resource types and subsequently, to reconcile interior heritage value with economic viability. This practicum has demonstrated the significance of sustaining the interior integrity of a historic building. Through case study and analysis, this practicum has also investigated the viability of adapting a contemporary programme to a historic interior environment. Given the requirement for research within interior preservation; as a result of this study, subsequent areas of investigation may be formed. Integration of analytic procedures and disciplinary techniques will broaden the scope of historic preservation to include interior environments in historic buildings, preserving a record of past socio-cultural events existing in the present.

## 5. References

- Abercrombie, S. (1994, January). The value of interior design, 1994. *Interior Design*, 65, 89-91.
- Aplin, G. (2002). *Heritage identification, conservation, and management*. New York: Oxford University Press.
- Babbie, E. (1989). *The practice of social research* (5<sup>th</sup> ed.). Belmont, CA: Wadsworth publishing company.
- Bachelard, G. (1994). *The poetics of space*. Boston: Beacon Press.
- Bal, M., Crewe, J., & Spitzer, L. (1999). *Acts of memory: cultural recall in the present*. London: Dartmouth College.
- Barrie, T. (1996). *Spiritual path, sacred place – myth, ritual and meaning in architecture*. London: Shambhala.
- Benjamin, W. (1986). *Reflections – essays, aphorisms, autobiographical writings*. New York: Schocken Books.
- Benjamin, W. (1968). *Illuminations*. New York: Harcourt, Brace & World.
- Bouman, O., & Van Toorn, R. (1994). *The invisible in architecture*. New York: St. Martin's Press.
- Buchanan, P. (1990, July). Architectural landmarks. *Architectural Review*, 188, 52 – 59.
- Bucher, W. (1996). *Dictionary of building preservation*. New York: John Wiley & Sons.
- Chase, S. B. (1992). *Preservation briefs 28: painting historic interiors*. Washington, D.C.: U.S. Department of the Interior.
- CIER. (2003). *Centre for Indigenous Environmental Resources*. Retrieved June 28, 2004, from <http://www.cier.ca/index2.html>
- City of Winnipeg. (2002). *The exchange district national historic site*. Retrieved November 03, 2002, from [http://www.city.winnipeg.mb.ca/ppd/historic\\_exchange.stm](http://www.city.winnipeg.mb.ca/ppd/historic_exchange.stm)



- City of Winnipeg (1983). *221 Rupert Avenue – Salvation Army Citadel*, J. Wilson Gray, 1901. Retrieved September 06, 2003, from <http://www.city.winnipeg.mb.ca/ppd/historic/pdf-consv/Rupert%20221-short.pdf>
- Connerton, P. (1989). *How societies remember*. New York: Cambridge University Press.
- Cross, N. (1984). *Developments in design methodology*. New York: John Wiley & Sons.
- Curtis, W. (1995, May). Modernity enriches history. *Progressive Architecture*, 76, 84 – 91.
- Curtis, W. (1993). Lines of thought, fragments of meaning. *El Croquis*, 61, 6 - 26.
- Davey, P. (1992, January). Museums and memory. *Architectural Review*, 190, 19.
- Davies, R. (1981). *The rebel angels*. New York: Penguin.
- Dedenroth-Schou, P. (2004). *History of Koldinghus*. Retrieved June 06, 2004, from <http://www.koldinghus.dk/Default.asp?ID=355>
- De Jouvenel, B. (1967). *The art of conjecture*. New York: Basic Books.
- Dirckink-Holmfelf, K. (1994, January). Rooted architecture. *Arkitektur DK*, 38, 1 – 12.
- Edwards, B. (1999, June). Theatrical flair: theatre, Amsterdam, the Netherlands. *Architectural Review*, 205(1228), p. 86 – 89.
- Elder, E. (1993). Will it make a theatre? Find, renovate & finance the non-traditional performance space. New York: American Council for the Arts.
- Feilden, B. M. (1994). *Conservation of historic buildings*. London: Butterworth-Heinemann.
- Fitch, J. M. (1990). *Historical preservation: curatorial management of the built world*. Charlottesville, VA: The University Press of Virginia.
- Frampton, K. (1995). *Studies in tectonic culture: the poetics of construction in nineteenth and twentieth century architecture*. Cambridge, Massachusetts: MIT Press.
- Gelernter, M. (1995). *Sources of architectural form: a critical history of Western design theory*. New York: Manchester University Press.

- Goldberger, P. (2001, February). The theatres of Hardy Holzman Pfeiffer associates. *Architecture Week*, 37, C2.1 – C2.2. Retrieved October 26, 2004, from [http://www.architectureweek.com/2001/0214/culture\\_2-1.html](http://www.architectureweek.com/2001/0214/culture_2-1.html)
- Gordon, G. (2003). *Interior lighting for designers* (4<sup>th</sup> ed.). New Jersey: John Wiley & Sons.
- Grover, S. C. (1982). *221 Rupert Avenue: Salvation Army Citadel*. Winnipeg, Manitoba, Canada: Historical Buildings Committee.
- Harbison, R. (1991). *The built, the unbuilt and the unbuildable - in pursuit of architectural meaning*. Cambridge, Massachusetts: The MIT Press.
- Heritage Winnipeg. (1999). *History of the business district*. Retrieved October 31, 2002, from <http://www.mts.net/~heritag2/historybusinessdistrict.html>
- Hetzler, F. M. (1988). Causality: ruin time and ruins. *Leonardo*, 21(1), 51-55.
- Illuminating Engineering Society of North America (1993). *Lighting handbook: reference and application* (8<sup>th</sup> ed.). New York: author.
- Jackson, J. B. (1980). *The necessity for ruins and other topics*. Amherst, Massachusetts: The University of Massachusetts Press.
- Jacobs, J. (1961). *The death and life of great American cities*. New York: Vintage Books.
- Jokilehto, J. (1999). *A history of architectural conservation*. Oxford: Butterworth-Heinemann.
- Jones, B. J. (1991, October). In search of authenticity. *Architects' Journal*, 194(18), 26-36.
- Karlen, M., & Benya, J. (2004). *Lighting design basics*. New Jersey: John Wiley & Sons.
- Kieckhefer, R. (2004). *Theology in stone: church architecture from byzantine to berkeley*. New York: Oxford University Press.
- Kilde, J. H. (2002). *When church became theatre – the transformation of evangelical architecture and worship in nineteenth-century America*. New York: Oxford University Press.

- Koerner, J. L. (2004). *The reformation of the image*. London: Reaktion.
- Le Goff, J. (1992). *History and memory*. New York: Columbia University Press.
- Lynch, K. (1972). *What time is this place?* Cambridge, Massachusetts: The MIT Press.
- Mackintosh, I. (1993). *Architecture actor & audience*. London: Routledge.
- Manitoba Culture, Heritage and Recreation (1986). *The Salvation Army*. Winnipeg, Manitoba, Canada: author.
- Manitoba Culture, Heritage and Tourism. (2002). *Heritage resources act*. Retrieved October 03, 2002, from <http://www.gov.mb.ca/chc/hrb/act.html>
- Mecanoo. (2004). *Trust Theatre, Amsterdam*. Retrieved November 09, 2004, from <http://www.mecanoo.com/main.php>
- Morton, W. B., Hume, G. L., Weeks, K. D., and Jandl, H. W. (1997). *The secretary of the interior's standards for rehabilitation and illustrated guidelines for rehabilitating historic buildings*. Washington, D.C. : U. S. Department of the Interior National Park Service Cultural Resources.
- Moss, R.W. (1988). *Lighting for historic buildings*. Washington, D.C. : The Preservation Press.
- Mostafavi, M, & Leatherbarrow, D. (1993). *On weathering: the life of buildings in time*. London: The MIT Press.
- Murphy, J. (1988, April). A celebrated dissolution. *Progressive Architecture*, 69, 100 – 103.
- Murtagh, W. J. (1997). *Keeping time – the history and theory of preservation in America* (revised ed.). New York: John Wiley & Sons.
- National Research Council of Canada (1992). *Manitoba building code*. Ottawa, Ontario, Canada: author.
- National Trust for Historic Preservation (1981). *New energy from old buildings*. Washington, D.C. : The Preservation Press.

- Olsberg, N., Ranalli, G., Bedard, J.F., Polano, S., Di Lieto, A., & Friedman, M. (1999). *Carlo Scarpa – architect – intervening with history*. Montreal, Quebec, Canada: Canadian Centre for Architecture.
- Orvell, M. (1989). *The real thing: imitation and authenticity in American culture, 1880 – 1940*. Chapel Hill: The University of North Carolina Press.
- O'Brien, D. (2005, January). Empty heritage building to get \$15.5-m facelift. *The Winnipeg Free Press*, pp. A1-A2.
- Park, S. C. (1994). *What to do about lead-based paint*. *Cultural Resource Management*, 17(4), 3 – 8.
- Park, S. C., & Martone, C. M. (1990). Lead-based paint in historic buildings. *Cultural Resource Management*, 12(1), 34 – 43.
- Parks Canada. (2003). *Standards and guidelines for the conservation of historic places in Canada*. Ottawa, Ontario, Canada: Her Majesty the Queen in Right of Canada.
- Philippot, P. (1996). Historic preservation: philosophy, criteria, guidelines, II. In, Price, N. S., Talley, M. K., & Vaccaro, A. M., *Historical and philosophical issues in the conservation of cultural heritage*. (pp. 358 – 363). Los Angeles: The Getty Conservation Institute.
- Popper, K. R. (1963). *Conjectures and refutations: the growth of scientific knowledge*. London: Routledge and Kegan Paul.
- Racine, L. A. (2001). On the inside looking out: guidelines for the treatment of historic furnished interiors. *Cultural Resource Management*, 24(7), 33 – 36.
- Ranalli, G. (1999). History, craft, invention. In, Olsberg, N., Ranalli, G., Bedard, J.F., Polano, S., Di Lieto, A., & Friedman, M., *Carlo Scarpa – architect – intervening with history*. (pp. 39 – 43). Montreal, Quebec, Canada: Canadian Centre for Architecture.

- Rossi, A. (1982). *The architecture of the city*. New York: MIT Press.
- Ruskin, J. (1909). *The seven lamps of architecture*. London: Cassell.
- Russell, B. (1991, September). Stage experience: the renovation of the Brooklyn academy of music's majestic theatre by Hardy Holzman Pfeiffer begs controversial applause. *Interiors*, 150(14), 100 – 101.
- Santin, A. (2004, June). 'Green' group re-energizing old building: Chinatown heritage site to house latest environmental technology. *The Winnipeg Free Press*, p. B5.
- Saunders, I. J., Rostecki, R. R., & Carrington, S. (1977). *Early buildings in Winnipeg: Volume IV, reports on selected buildings*. Winnipeg, Manitoba, Canada: Parks Canada.
- Sawka, J. (2001, Autumn). Fair exchange - where past, present and future meet. *Style Manitoba*. 45 - 48.
- Schultz, A. (2000). Carlo Scarpa: built memories. In, Birksted, J. *Landscapes of memory and experience*. (pp. 47 – 60). London: Spon Press.
- Seale, W. (1981). *The tasteful interlude – American interiors through the camera's eye, 1860 – 1917* (2<sup>nd</sup> ed.). Nashville, Tennessee: American Association for State and Local History.
- Shivers, N. (1990). *Respectful rehabilitation: walls and molding*. Washington, D.C.: The Preservation Press.
- Sommer, R., & Sommer, B. (2002). *A practical guide to behavioral research: tools and techniques* (5<sup>th</sup> ed.). New York: Oxford University Press.
- Steedman, C. (2002). *Dust: the archive and cultural history*. New Brunswick, New Jersey: Rutgers University Press.
- Steffy, G. (2002). *Architectural lighting design* (2<sup>nd</sup> ed.). New York: John Wiley & Sons.
- Thompson, M. W. (1981). *Ruins – their preservation and display*. London: Colonnade.

- Tyler, N. (2000). *Historic preservation – an introduction to its history, principles, and practice*. New York: W. W. Norton & Company.
- U. S. Department of the Interior. (2000). *The secretary of the interior's standards for the treatment of historic properties with guidelines for the preservation, rehabilitation, restoration, and reconstruction of historic furnished interiors (Second Draft)*. Boston: National Park Service, Northeast Museum Services Center.
- U.S. Department of the Interior. (1980). *Metals in America's historic buildings: uses and preservation treatments*. Washington, D.C.: The Preservation Press.
- Viollet-le-Duc, E. (1990). *The foundations of architecture: Selections from the dictionnaire raisonné*. New York: George Braziller, Inc.
- Waite, J. G. (1991). *Preservation briefs 27: the maintenance and repair of architectural cast iron*. Washington, D.C.: U.S. Department of the Interior.
- Weber, P. H. (1990). *Basic content analysis* (2<sup>nd</sup> ed). London: Sage.
- Winnipeg City Council. (2004). *Plan Winnipeg 2020 vision – a long range policy plan for city council*. Retrieved March 06, 2004, from [http://winnipeg.ca/cao/pdfs/plan\\_2020.pdf](http://winnipeg.ca/cao/pdfs/plan_2020.pdf)
- Yee, R. (2000, December). Urbane renewal: acclaimed for interpretive restoration, Hardy Holzman Pfeiffer associates sees history in the remaking. *Interiors*, 159(12), 42 – 49.

## 6. Appendices

### Appendix A

#### *Programme Requirements*

##### I. Contextual Analysis

- i. *Site description:* background of context, existing adjacent structures, general character of surrounding site, vehicular and pedestrian access, parking, zoning, setbacks, environmental factors, opportunities and constraints of the site, future plans for the area.
- ii. *Building description:* proposed use, unique architectural features, general character of the building, building envelope, socio-cultural origins of interior space, interior character defining elements, square footage, identifiable structural features, existing documentation, vertical circulation, features to be retained/demolished/or designed, opportunities and constraints within the building.

##### II. Human Aspects

- i. *User profile:* identification of primary/secondary/ and tertiary users, description of the company or organization, organizational structure, salient features, demographic information, behavioral aspects, values, and cultural factors.
- ii. *Social relationships:* description of relationships to be maintained.
- iii. *Psychological characteristics:* description of relationships of primary/secondary/and tertiary users.
- iv. *Behavioural needs and activities:* needs for privacy, socialization and type and description of different activities.

### III. **Physical Requirements**

- i. *Functional requirements:* furnishings and equipment needed to support activities
- ii. *Materials:* description of attributes and special characteristics
- iii. *Lighting:* identification of needs for general illumination, task lighting, ambient lighting, and natural daylight.
- iv. *Building systems and technology:* structural, mechanical and electrical systems, plumbing, HVAC, and special systems.
- v. *Health and safety issues:* building code requirements, barrier-free access, universal design issues.
- vi. *Spatial character:* environment, visual concept, character.
- vii. *Spatial requirements:* description and approximate square footage/overall area to support each major component, activity, or space.
- viii. *Zoning and circulation:* access to the site, access to the building, identification of primary and secondary entrances, interior zoning and circulation, analysis of functional relationships.

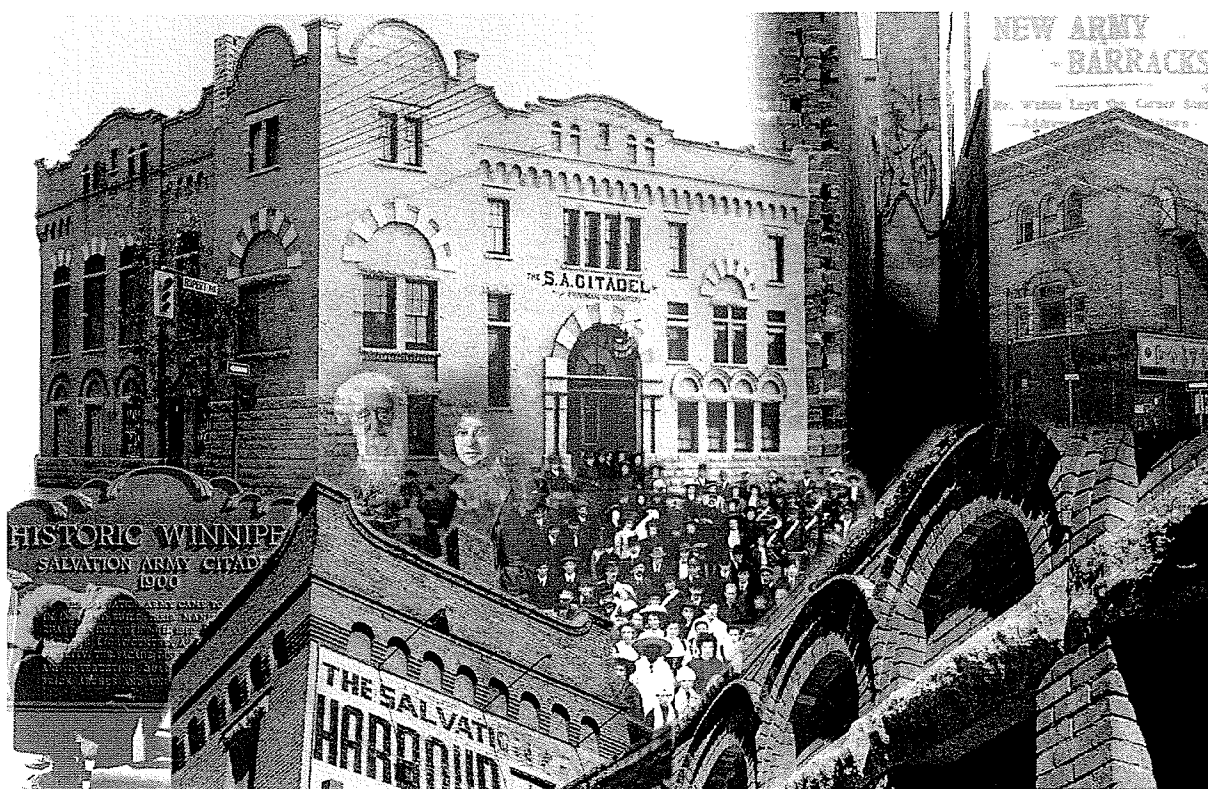
### IV. **Guiding Design Principles**

- i. *Programme objectives, design issues and guidelines:* description of design principles to inform the design intervention.



## Appendix B.1

### *Contextual Analysis – Impression Imagery*



Impression Imagery is a synthesis of *the Citadel's* historic memory in time.

## Appendix B.2

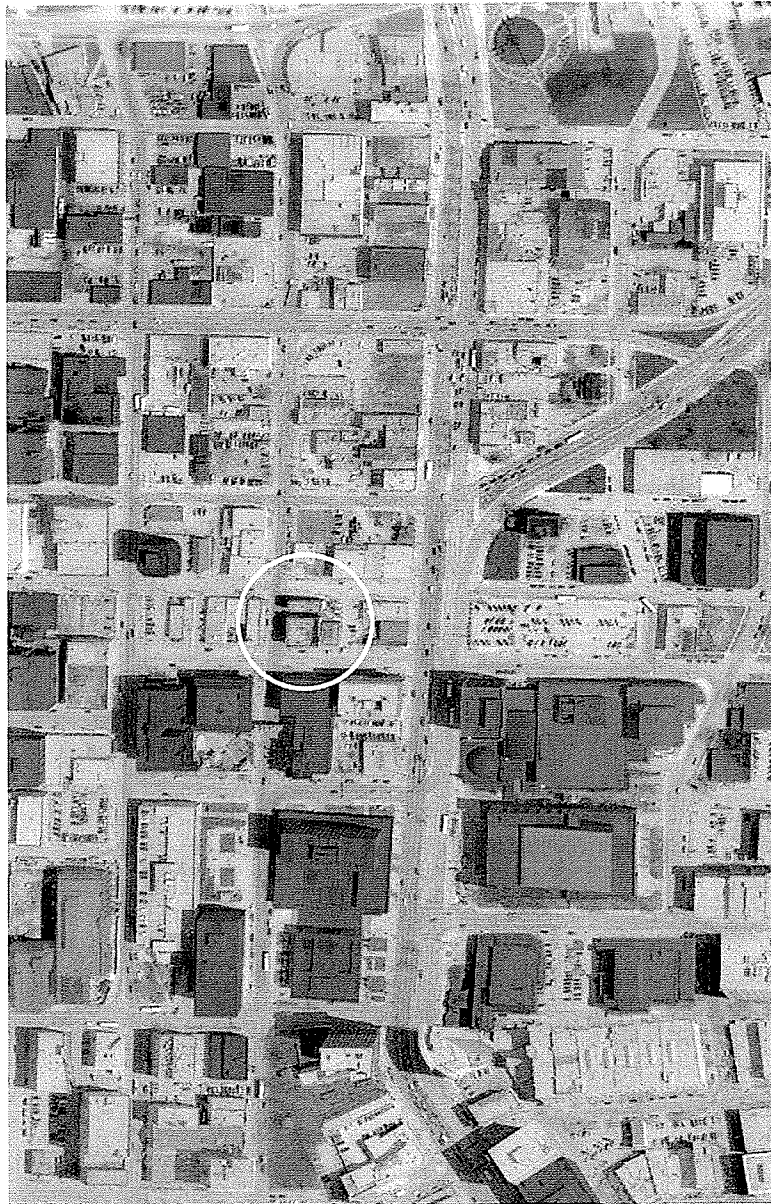
### *Contextual Analysis – Land/Building Form*











Land/Building form constitutes a large scale graphic analysis of building form and massing within downtown Winnipeg.

### Appendix B.3

#### *Contextual Analysis – Macro Land Use*



Macro Land Use encompasses a three-block parameter study of land use bordering the intervention site.

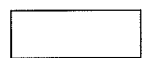
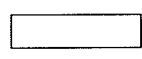


 commercial	 places of worship
 entertainment/cultural	 residential
 industrial	 municipal/government
 green space	 educational

## Appendix B.4

### *Contextual Analysis – Circulation*

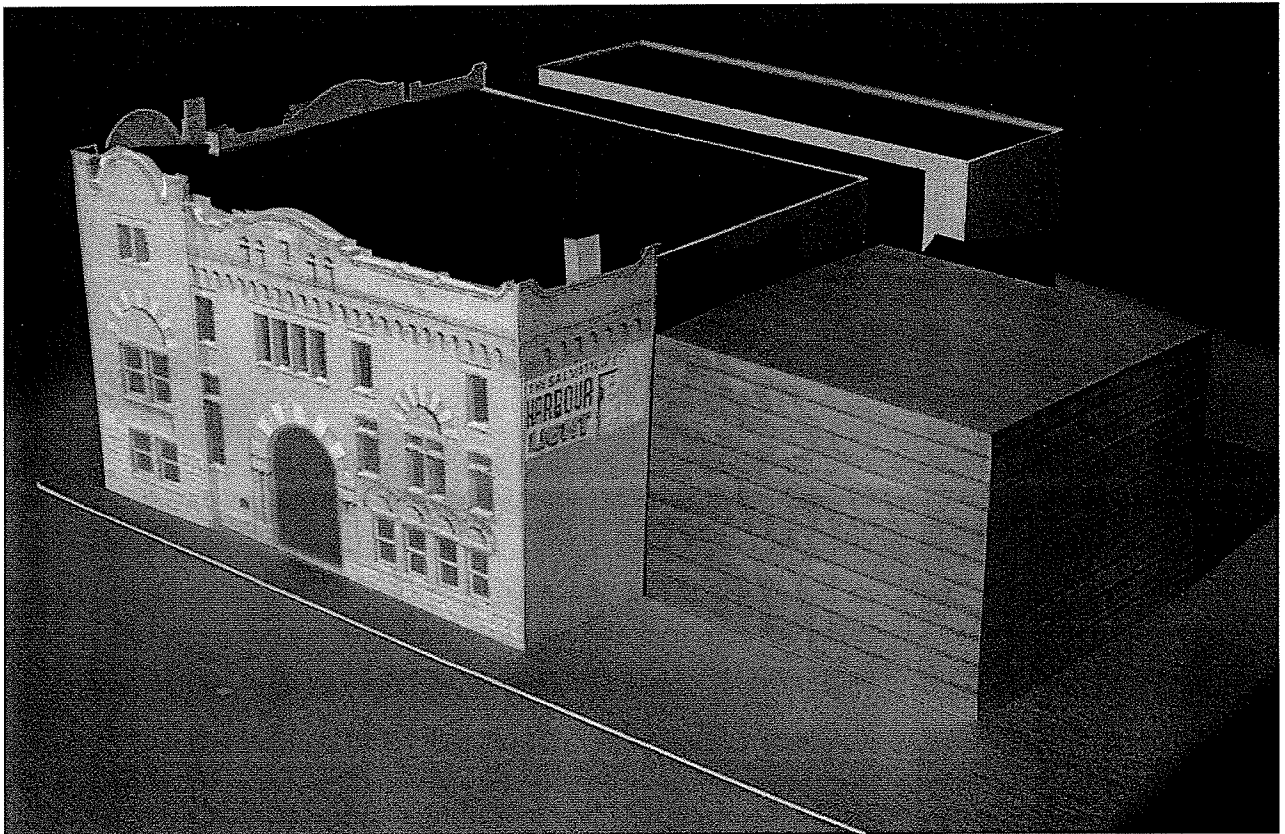


Circulation Analysis encompasses a three-block parameter study of vehicular circulation routes and public parking bordering the intervention site.

-  primary routes
-  secondary routes
-  tertiary routes
-  public parking

## Appendix C.1

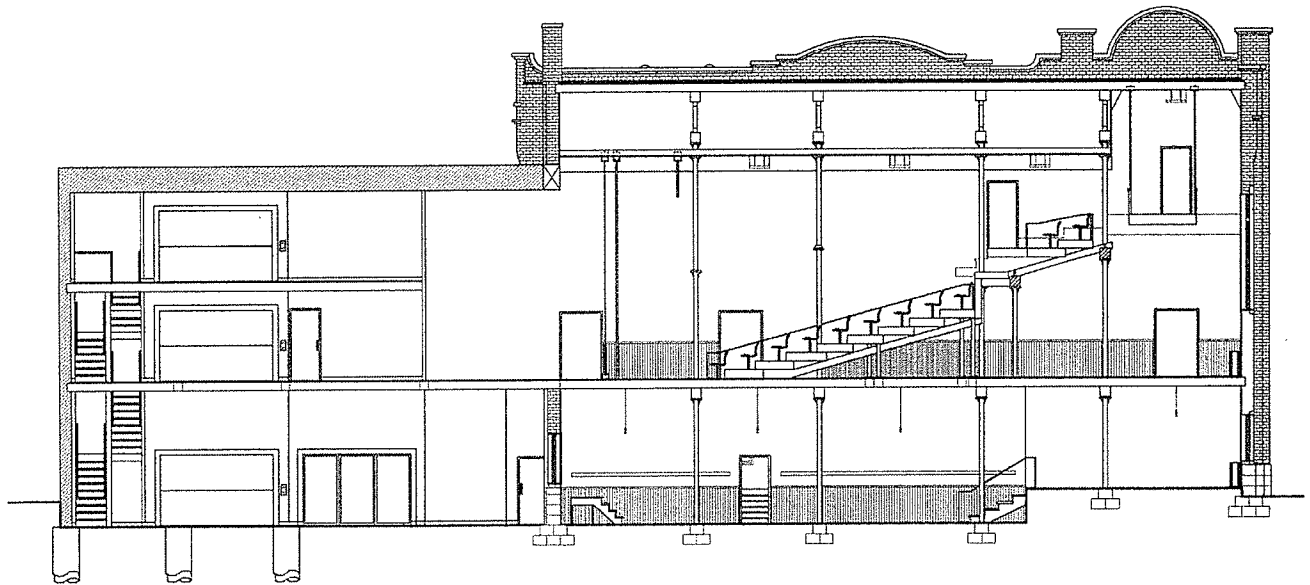
### *Interior Design Intervention – Building Addition*



Exterior North-West view of *Citadel* with building addition.

## Appendix C.2

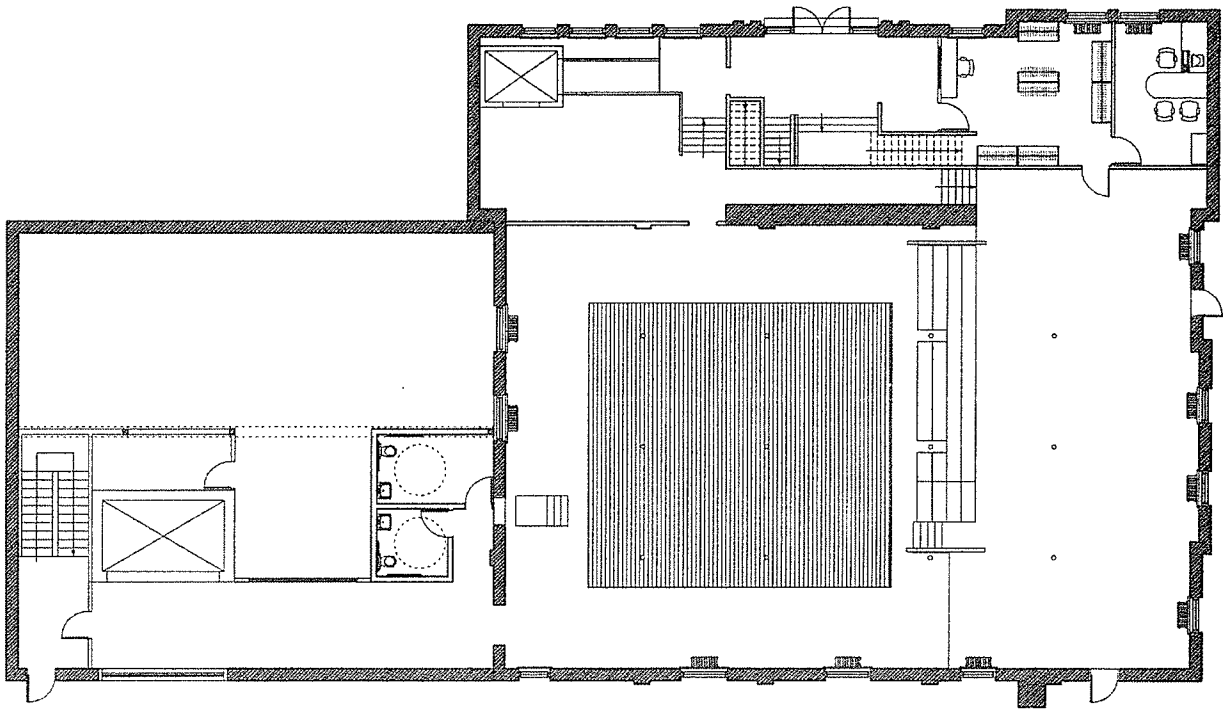
### *Interior Design Intervention – East-West Section*



East-West section of existing building with new addition.

### Appendix C.3

#### *Interior Design Intervention – Sub/First Level Plan*



Sub and first level plan of rehearsal area, entry and sub level addition.



## Appendix C.4

### *Interior Design Intervention – Entry*

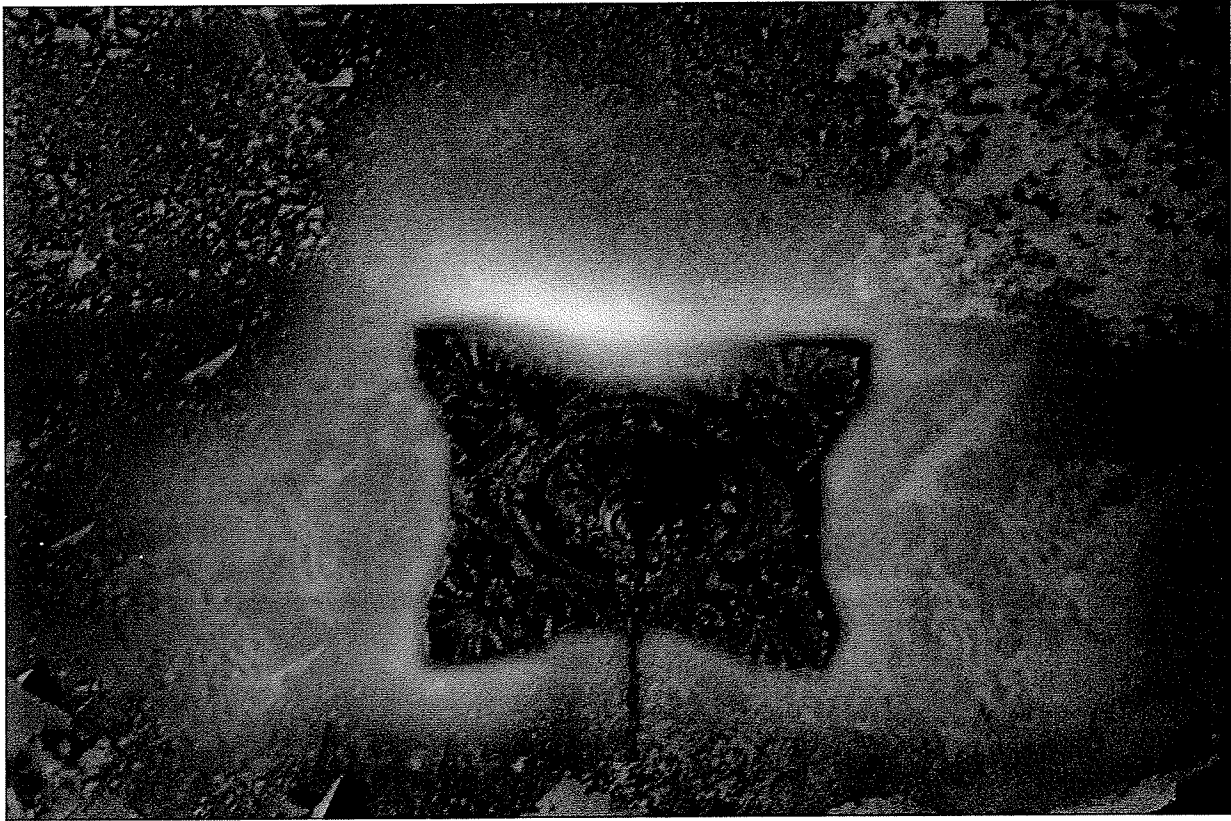


Primary spectator entry circulation vestibule with chromochronology.



## Appendix C.5

### *Interior Design Intervention – Entry Dome*



Dome ceiling within spectator entry vestibule is characterized by an existing light fixture which is suspended and lit from behind.

## Appendix C.6

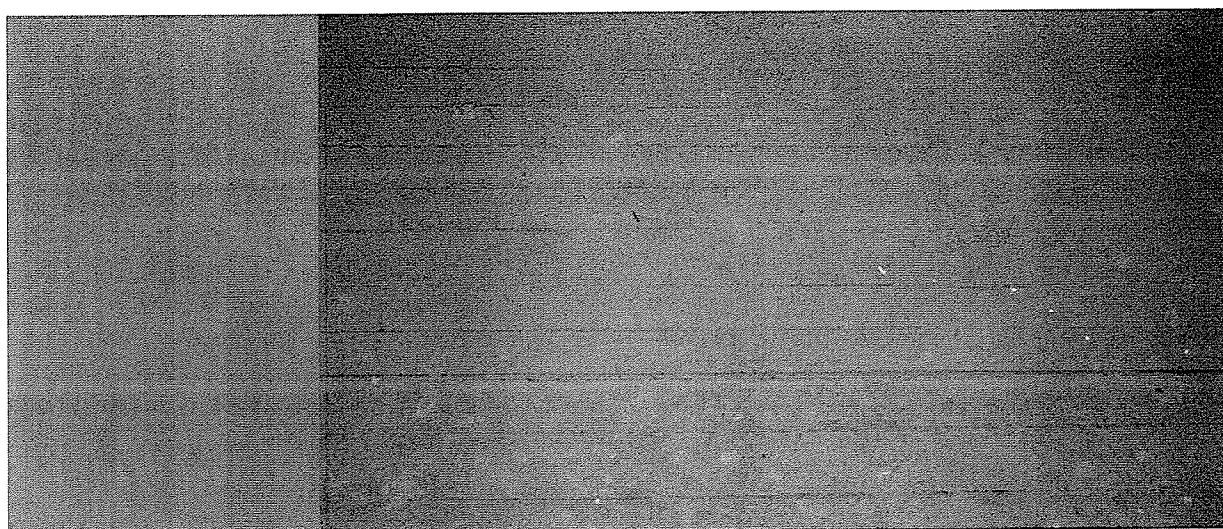
### *Interior Design Intervention – Entry Platform*



View of platform within second level circulation area.

## Appendix C.7

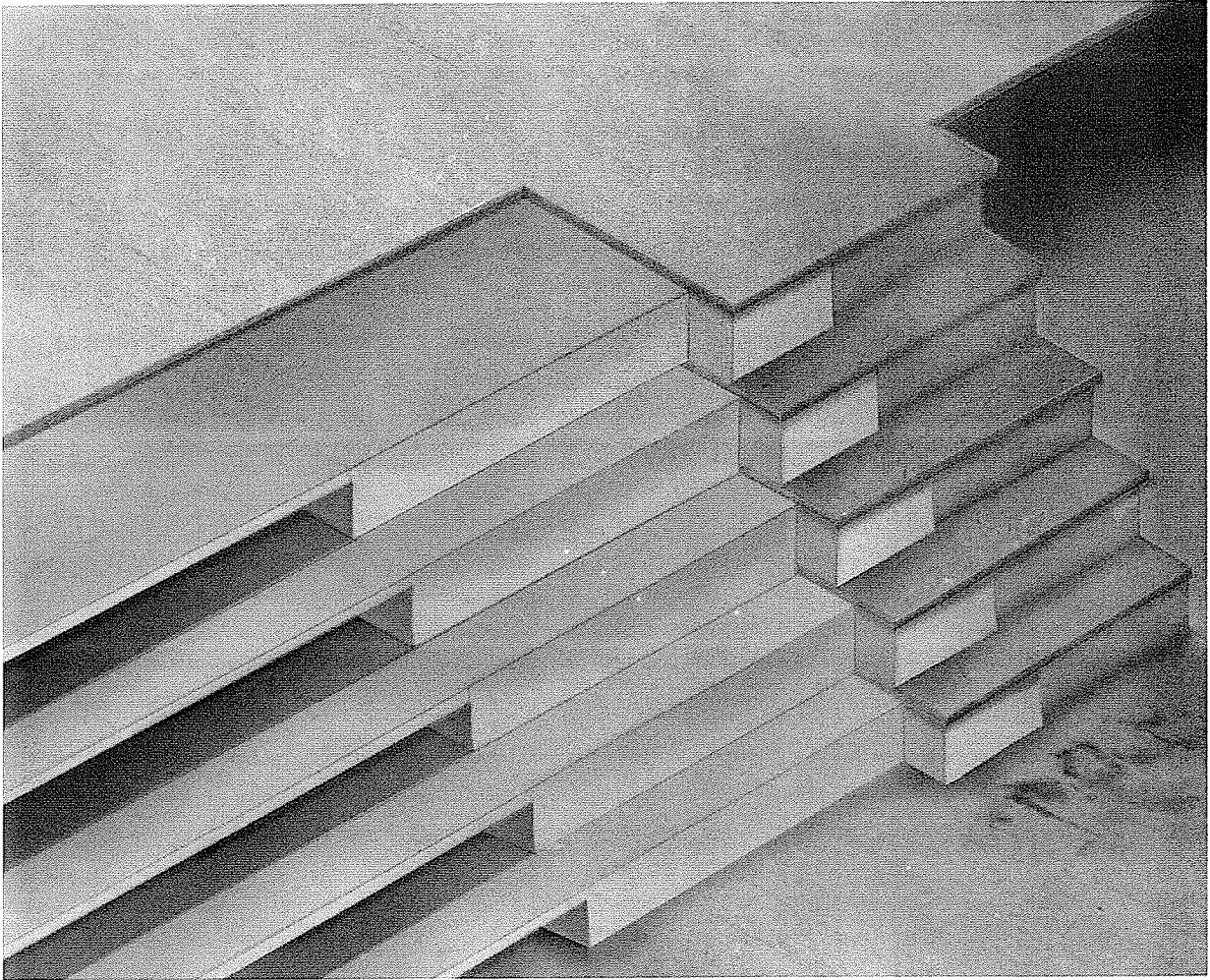
### *Interior Design Intervention – Sub Level Floor*



Material interface within sub level rehearsal area.

## Appendix C.8

### *Interior Design Intervention – Sub Level Stair*

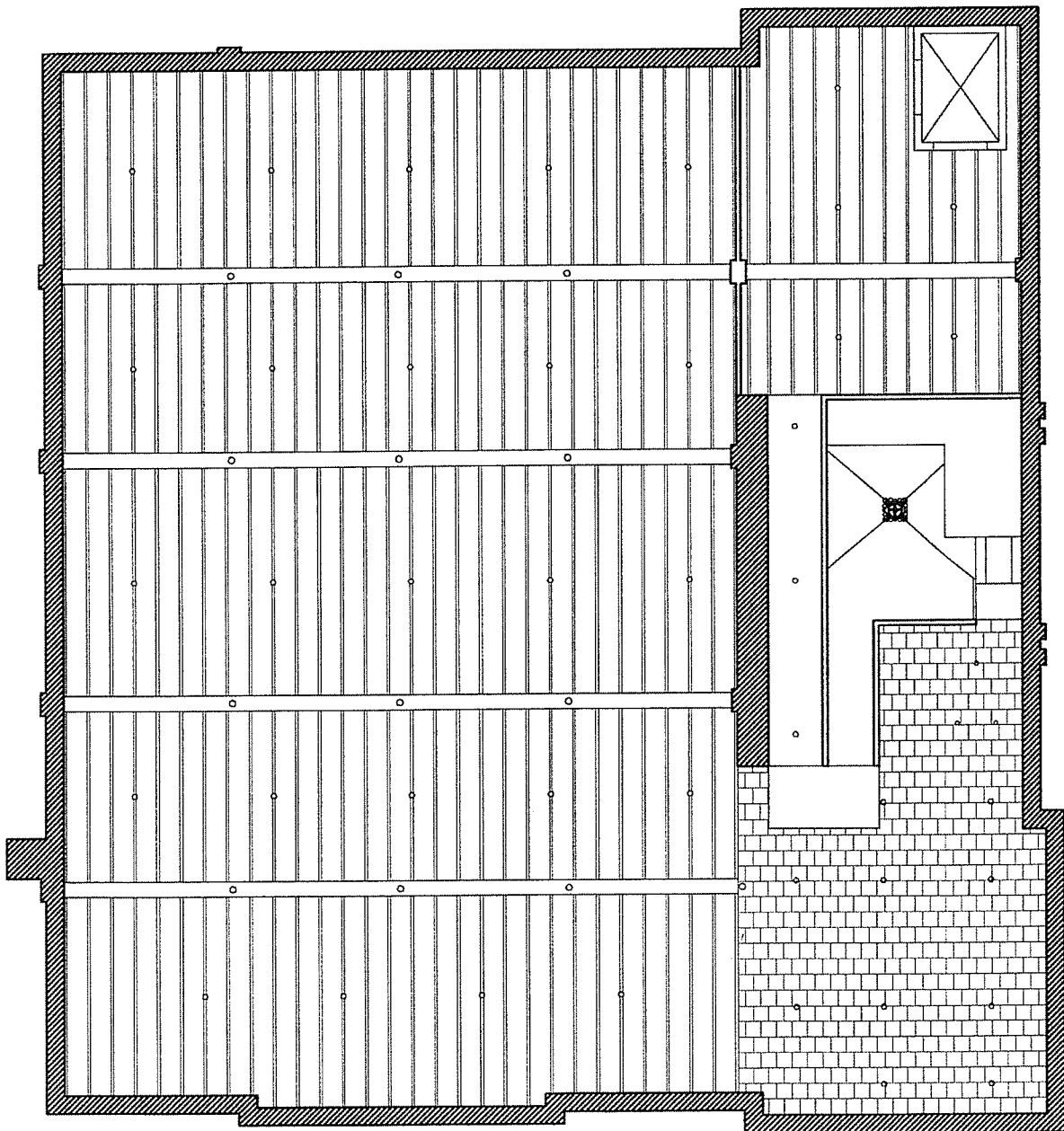


Intervention whereby new stairs are layered over existing stairs.

## Appendix C.9

### *Interior Design Intervention – Sub/First Level*

#### *Reflected Ceiling Plan*

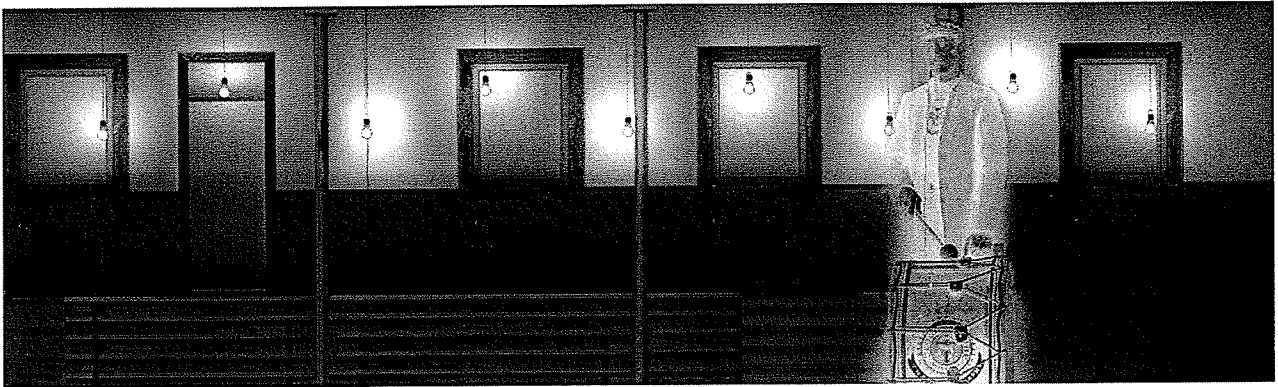


Existing joists and beams within the sub and first level rehearsal area are left visible and the existing ceiling tile within the first level area is retained.



## Appendix C.10

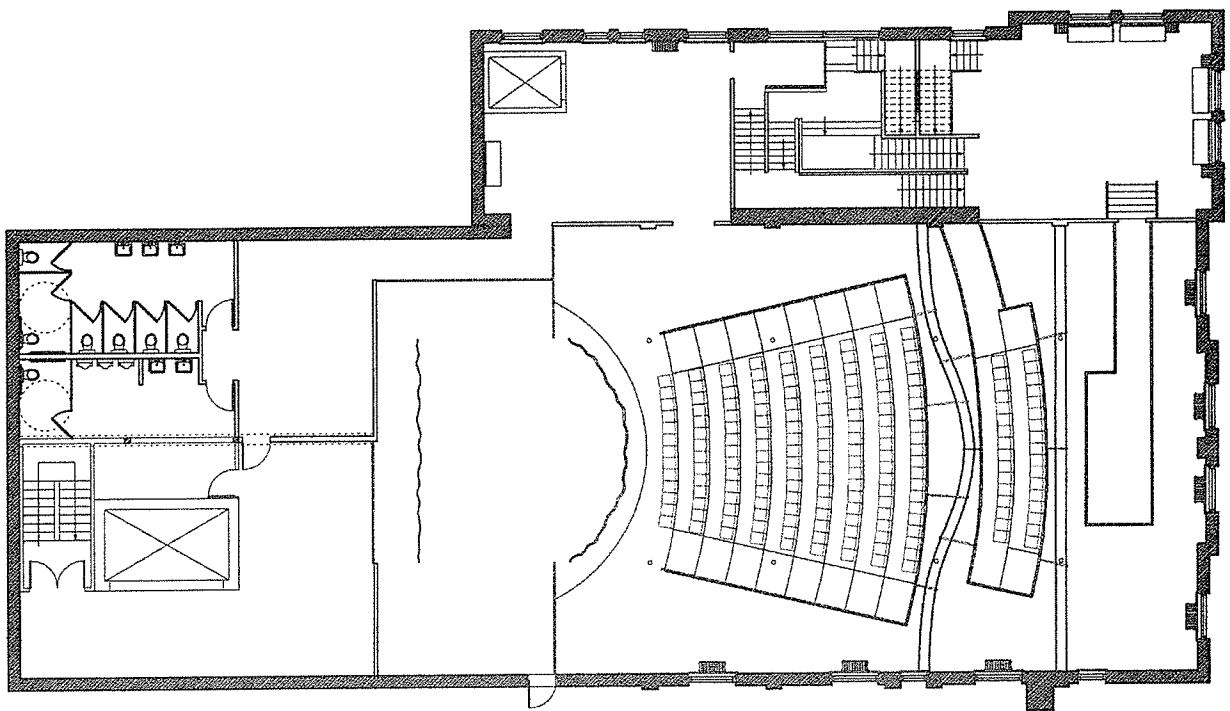
### *Interior Design Intervention – First Level Rehearsal Area*



View West to first level rehearsal area platform.

## Appendix C.11

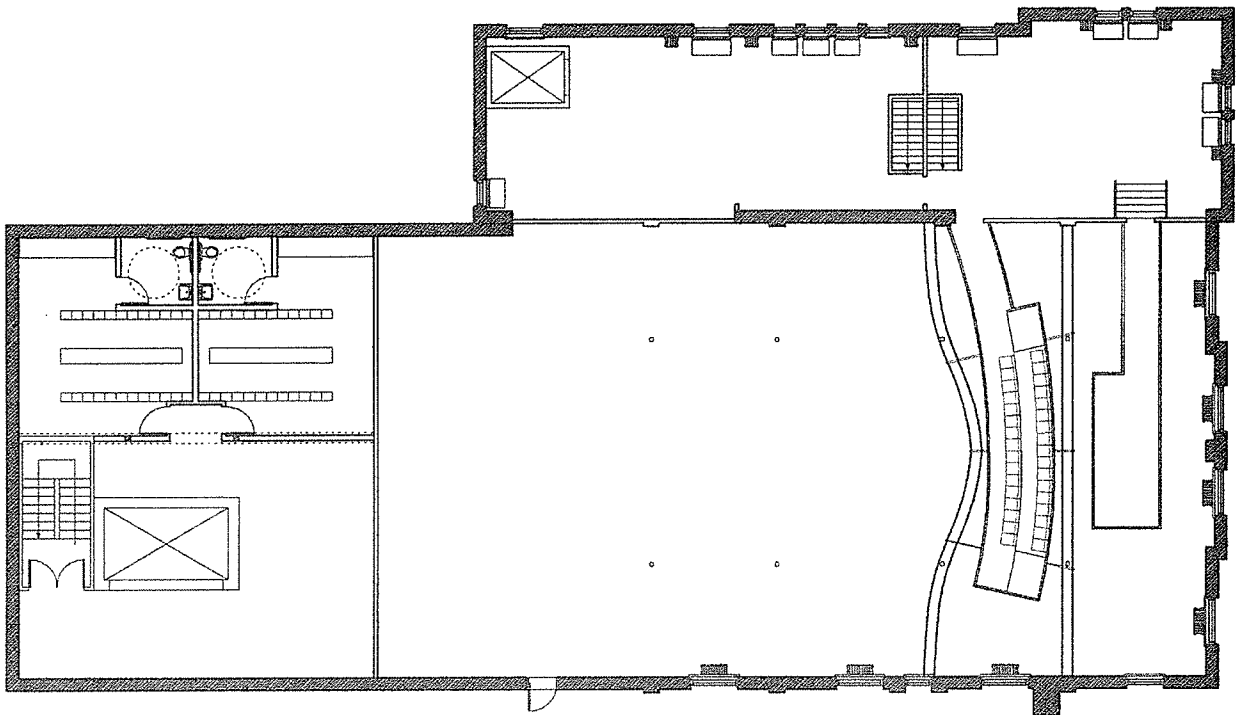
### *Interior Design Intervention – Second Level Plan*



Plan of second level auditorium, break-out space and new addition.

## Appendix C.12

### *Interior Design Intervention – Third Level Plan*

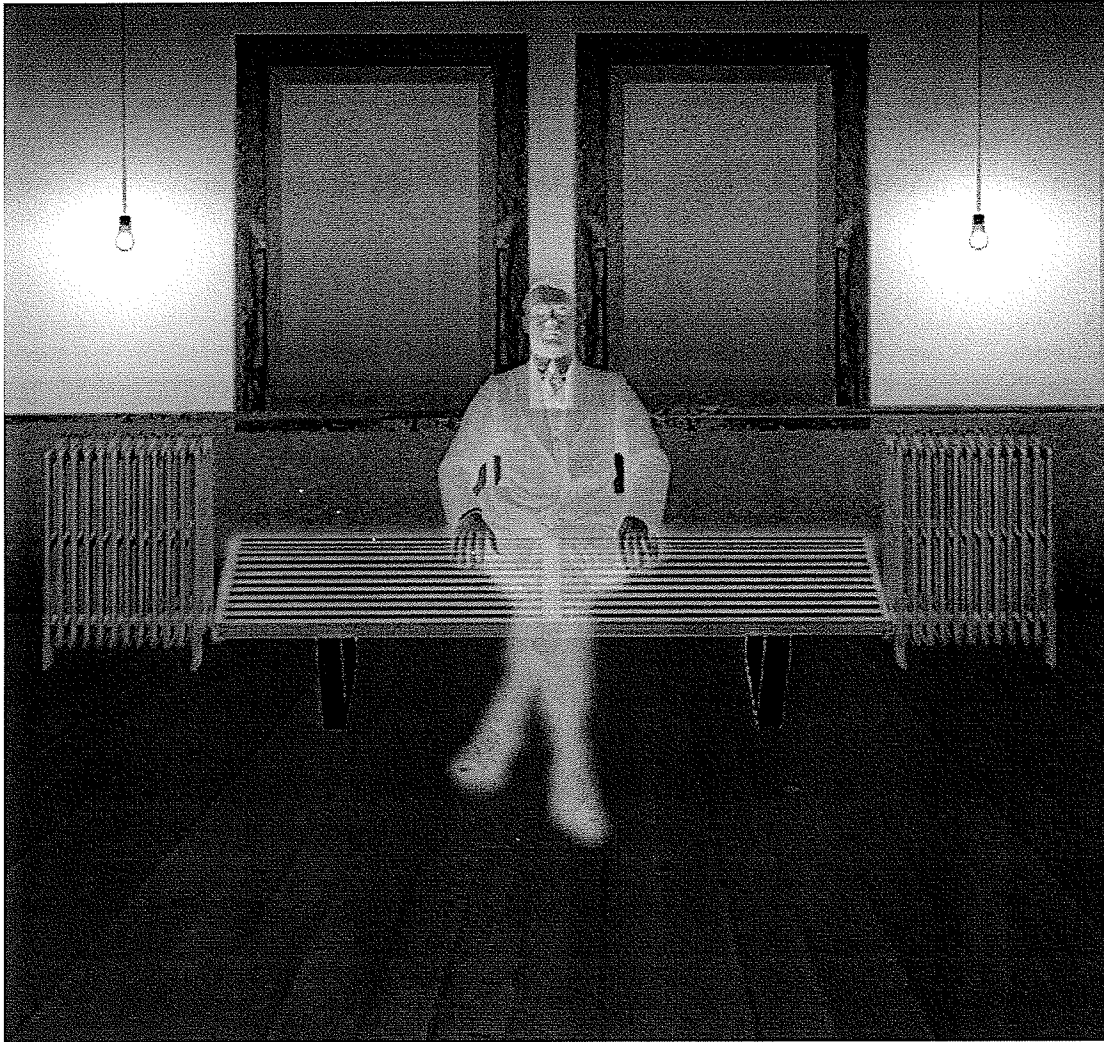


Third level plan of seating, break-out space, dressing rooms and fourth level technician booth.



### Appendix C.13

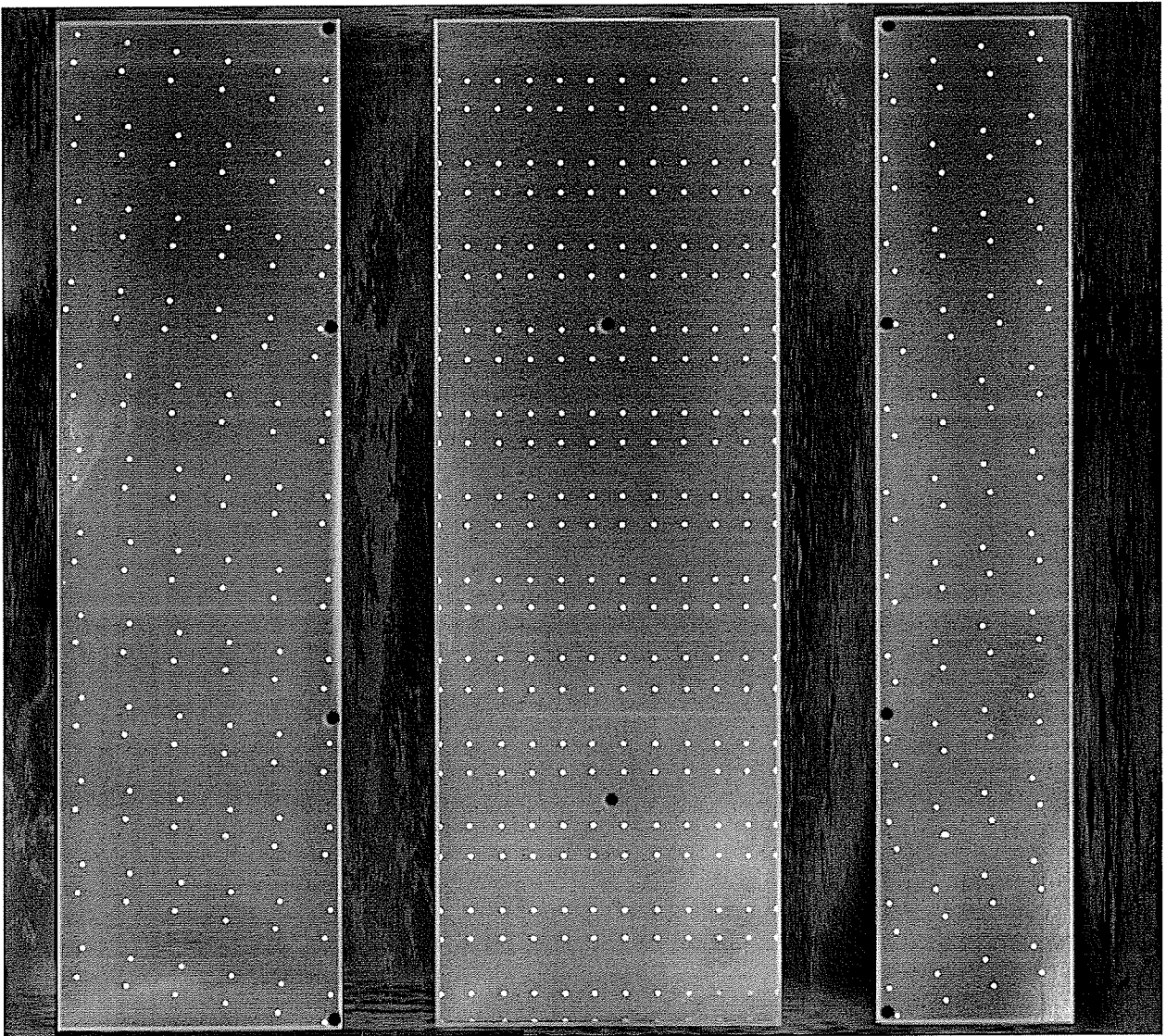
#### *Interior Design Intervention – Break-Out Space*



View into second and third level break-out space.

## Appendix C.14

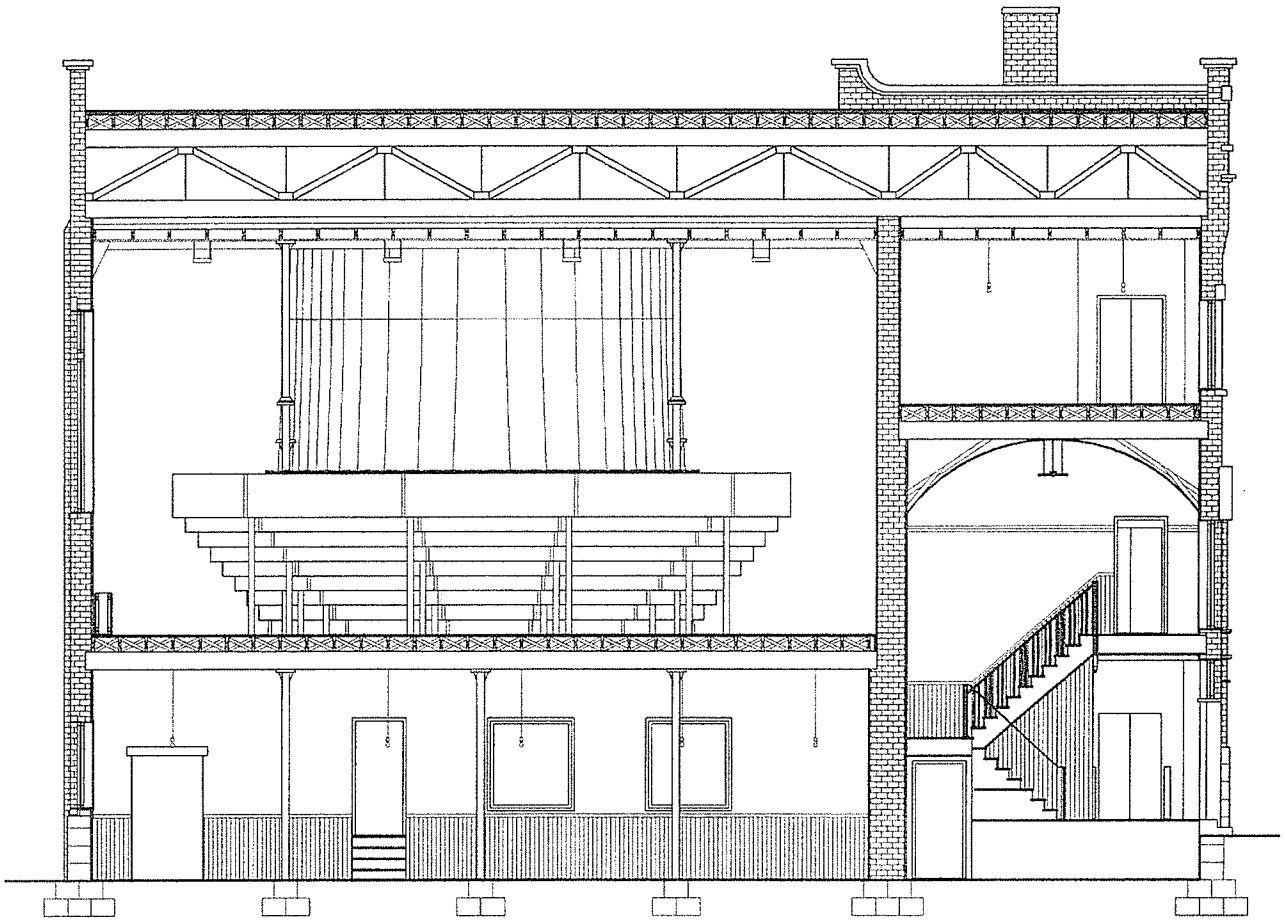
### *Interior Design Intervention – Auditorium Spatial Cone*



The existing second floor auditorium is characterized by the spatial cone significant to the neomedieval auditorium church.

## Appendix C.15

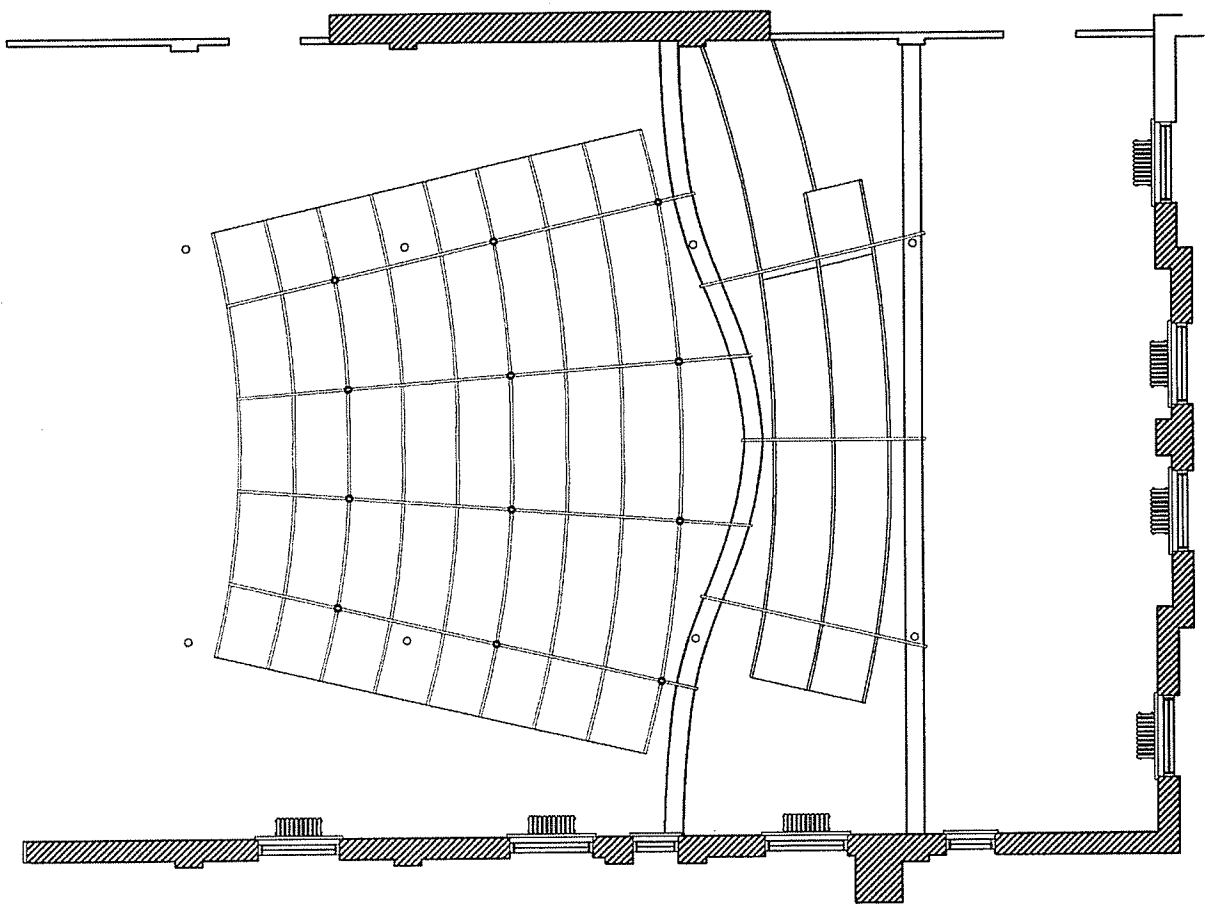
### *Interior Design Intervention – North-South Section*



North-South section of sub-level rehearsal area, primary entry and auditorium.

## Appendix C.16

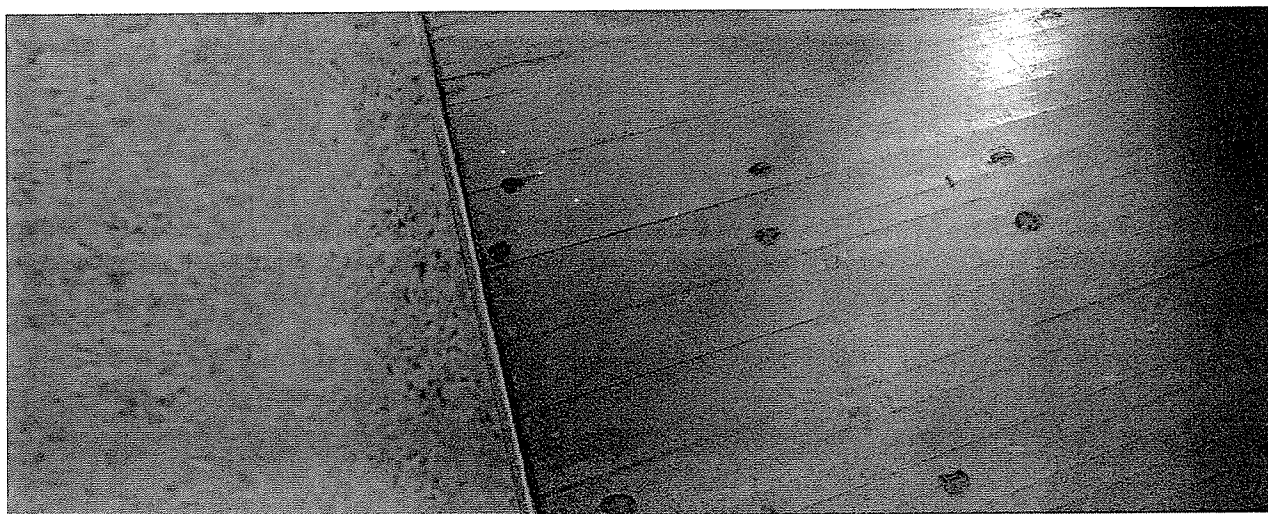
### *Interior Design Intervention – Seating Detail*



Detail of second and third level seating, constructed as a large floating stair.

## **Appendix C.17**

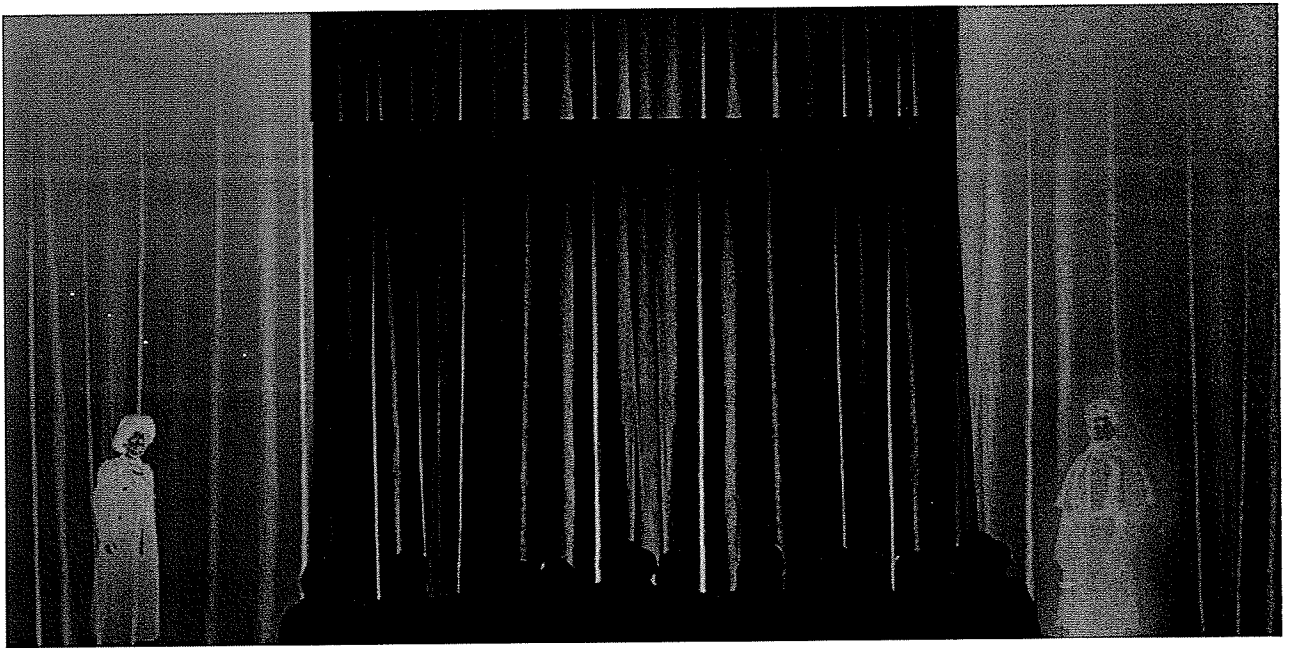
### *Interior Design Intervention – Second Level Material Interface*



Material interface within second level auditorium area.

## Appendix C.18

### *Interior Design Intervention – Presentational Space, Closed*



View of presentational space, closed, within second level auditorium.

## Appendix C.19

### *Interior Design Intervention – Presentational Space, Partially Open*



View of presentational space, partially open, within second level auditorium.



## Appendix C.20

### *Interior Design Intervention – Presentational Space, Open*

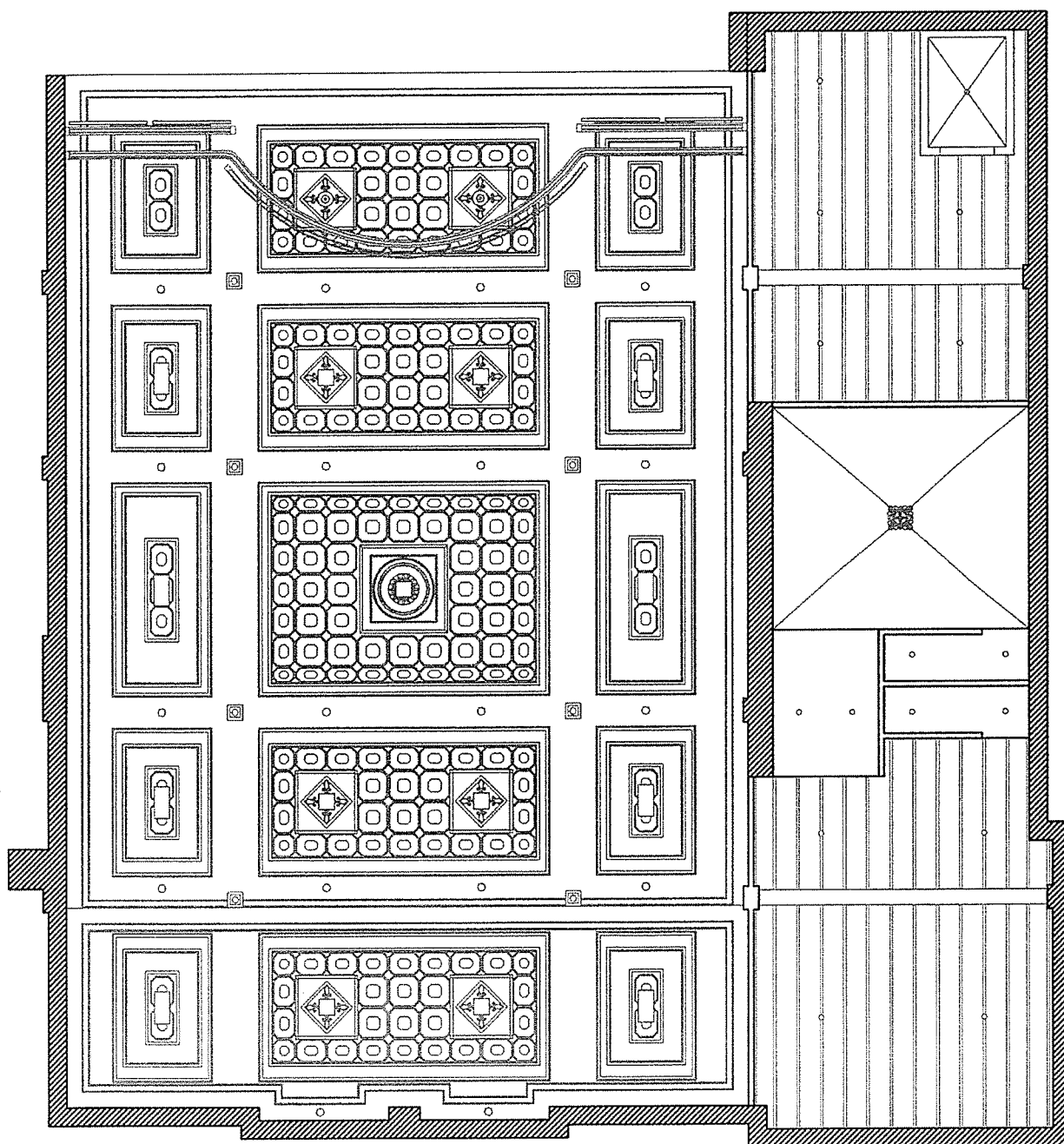


View of presentational space, open, within second level auditorium.



## Appendix C.21

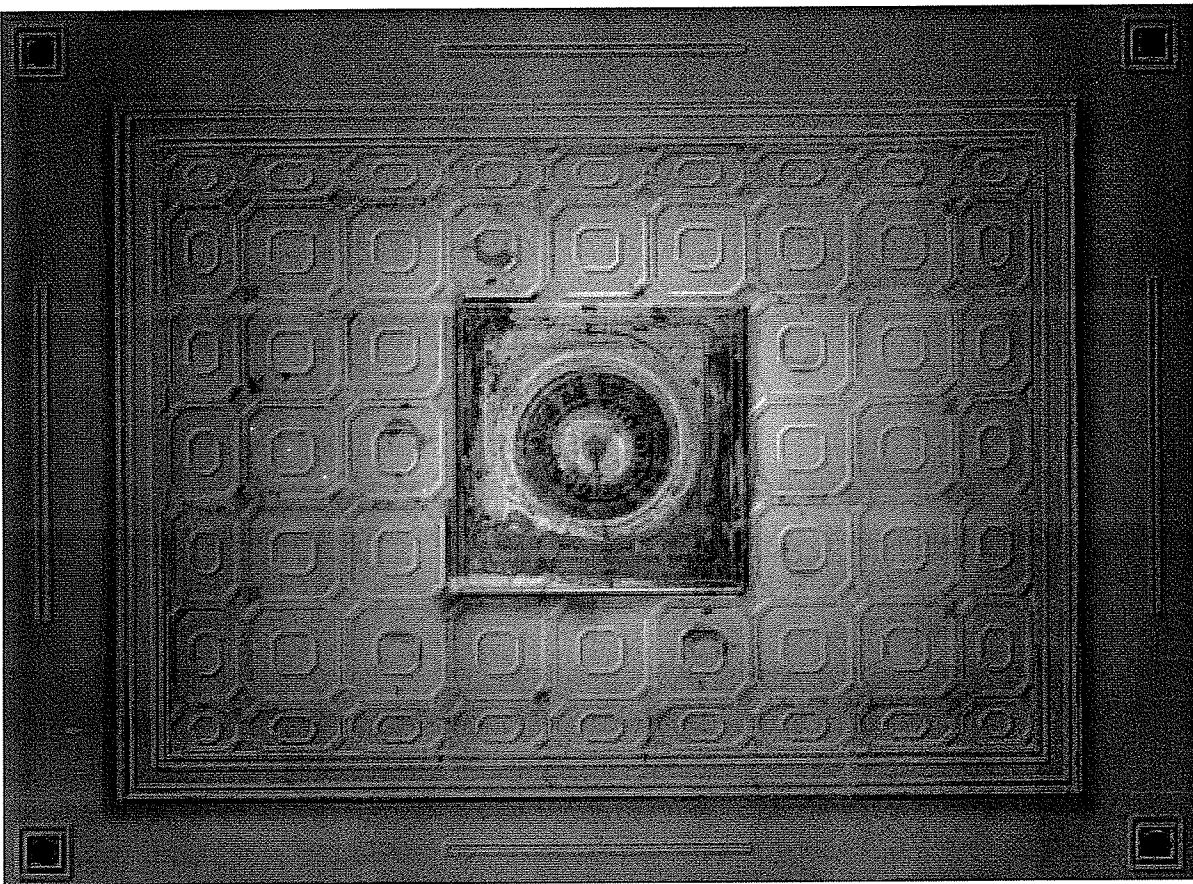
### *Interior Design Intervention – Second Level Reflected Ceiling Plan*



The existing pressed tin ceiling pattern is retained within the second level auditorium.

## Appendix C.22

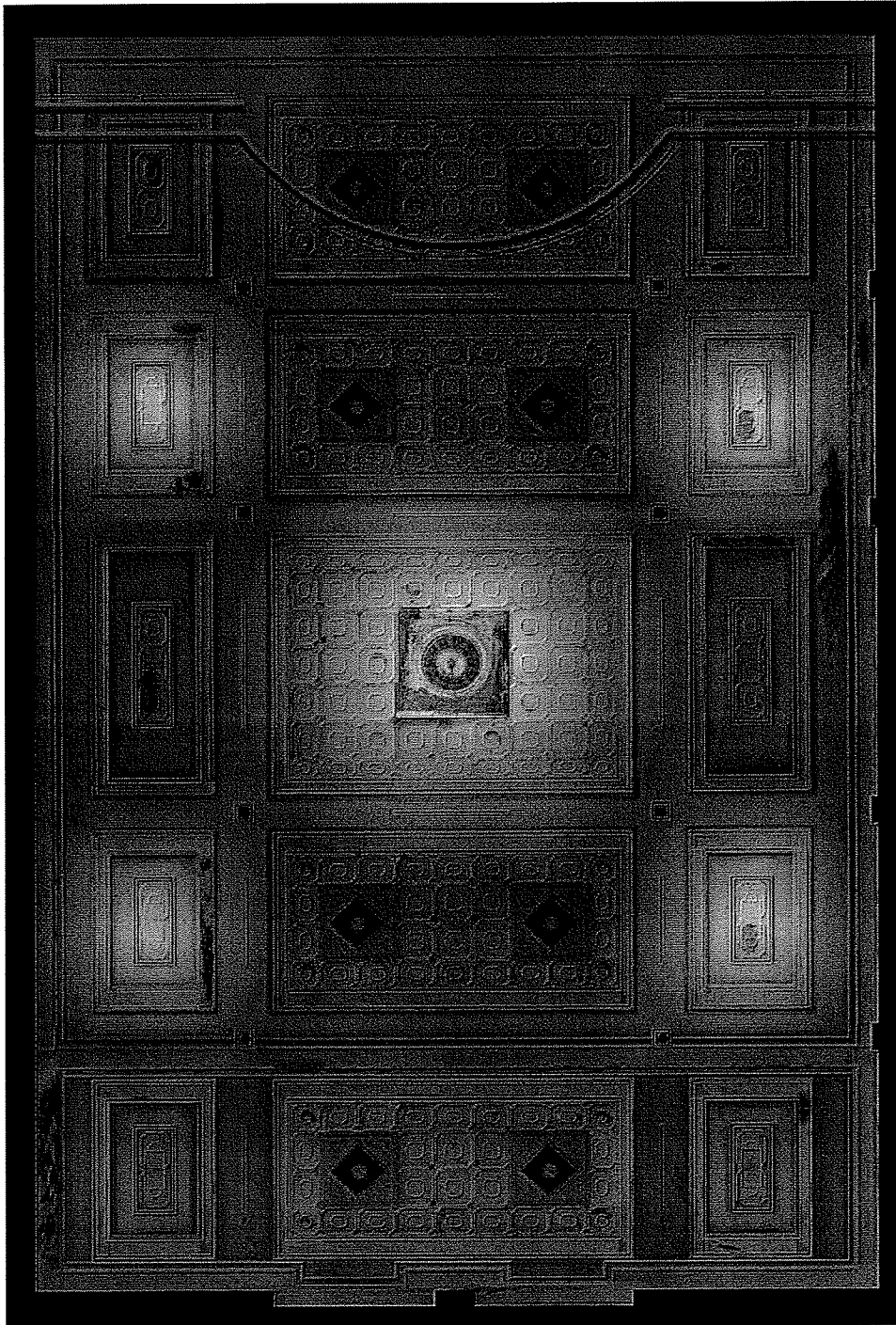
### *Interior Design Intervention – Second Level Ceiling Detail*



Detail of the existing pressed tin ceiling pattern with uplight within the second level auditorium.

## Appendix C.23

### *Interior Design Intervention – Auditorium Uplighting*



Significant character defining elements of the auditorium ceiling are emphasized by uplights.

## Appendix C.24

### *Interior Design Intervention – Auditorium Lighting Pattern*



Uplights are used to create numerous lighting patterns.



## Appendix C.25

### *Interior Design Intervention – Auditorium Downlighting*



Downlights are located within areas of non-significant character.

## 7. Figures

*Copyrighted image not available.*

*Figure 1.1*  
BAM Majestic Theatre,  
Brooklyn, New York, 1904.  
J.B. McElfatrick.  
Interpretive restoration by  
Hardy Holzman Pfeiffer  
Associates, 1987.  
Interior view of theatre;  
performer spectator space.  
Photograph by Ned Witrogen.  
Courtesy the Brooklyn  
Academy of Music.

*Copyrighted image not available.*

*Figure 1.2*  
BAM Majestic Theatre, Brooklyn, New York,  
1904. J.B. McElfatrick.  
Interpretive restoration by Hardy Holzman  
Pfeiffer Associates, 1987.  
Detail of stabilized crumbling plasterwork,  
columns, and arches.  
Photograph by H. Durston Saylor.  
Courtesy Interiors.

*Copyrighted image not available.*

*Figure 1.3*  
BAM Majestic Theatre, Brooklyn, New York, 1904. J.B. McElfatrick.  
Interpretive restoration by Hardy Holzman Pfeiffer Associates, 1987.  
Retention of patina within reception area.  
Photograph by Ned Witrogen.  
Courtesy the Brooklyn Academy of Music.

*Copyrighted image not available.*

*Figure 1.4*  
BAM Majestic Theatre, Brooklyn, New York, 1904. J.B. McElfatrick.  
Interpretive restoration by Hardy Holzman Pfeiffer Associates, 1987.  
Exposed steelwork is fireproofed and remains revealed. Oak benches replace damaged auditorium seating, emphasizing contemporary design intervention within the historic fabric.  
Photograph by H. Durston Saylor.  
Courtesy Interiors.



*Figure 1.5*  
BAM Majestic Theatre, Brooklyn,  
New York, 1904. J.B. McElfatrick.  
Interpretive restoration by Hardy  
Holzman Pfeiffer Associates, 1987.  
Viewing boxes are retained in their  
discovered condition; adapted as  
performance space.  
Photograph by the Bridge and Tunnel  
Club.  
Courtesy the Bridge and Tunnel Club.



*Figure 1.6*  
BAM Majestic Theatre, Brooklyn,  
New York, 1904. J.B. McElfatrick.  
Interpretive restoration by Hardy  
Holzman Pfeiffer Associates, 1987.  
Back stage wall degradation is  
partially replicated, rendering the  
historic inauthentic.  
Photograph by the Bridge and Tunnel  
Club.  
Courtesy the Bridge and Tunnel Club.





*Figure 1.7*

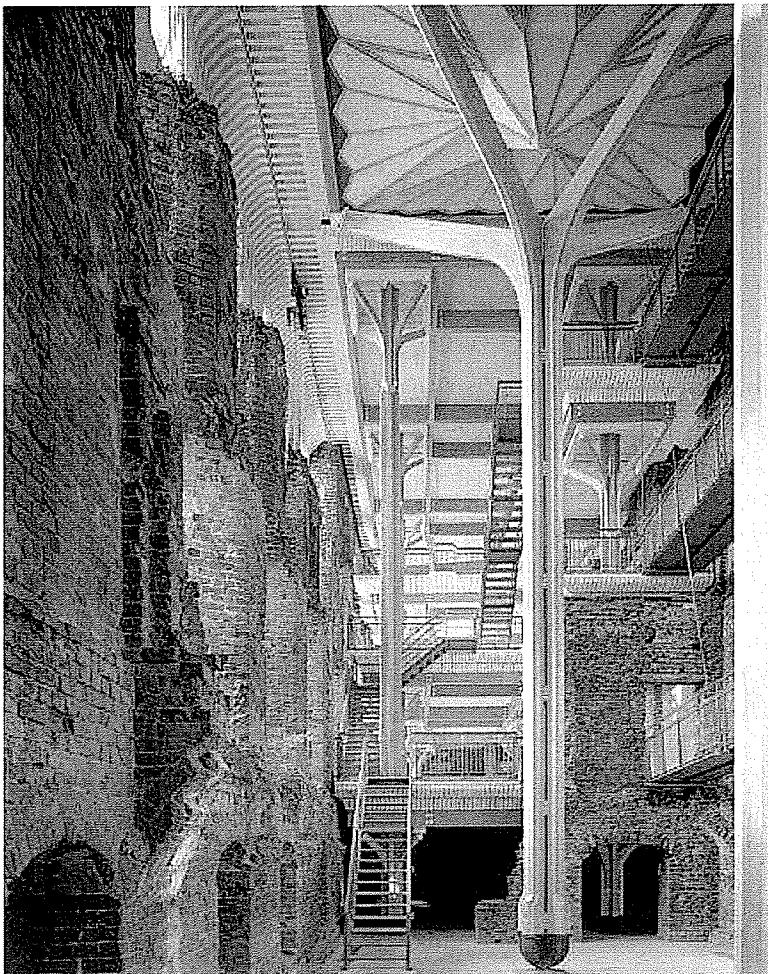
BAM Majestic Theatre, Brooklyn, New York, 1904. J.B. McElfatrick.

Interpretive restoration by Hardy Holzman Pfeiffer Associates, 1987.

Theatre lighting and ventilation system creates contrast in contemporary design intervention.

Photograph by the Bridge and Tunnel Club.

Courtesy the Bridge and Tunnel Club.



*Figure 2.1*

Koldinghus Castle, Kolding, Denmark, 13<sup>th</sup> century commission.

Restoration from 1972-1994 by Inger and Johannes Exner.

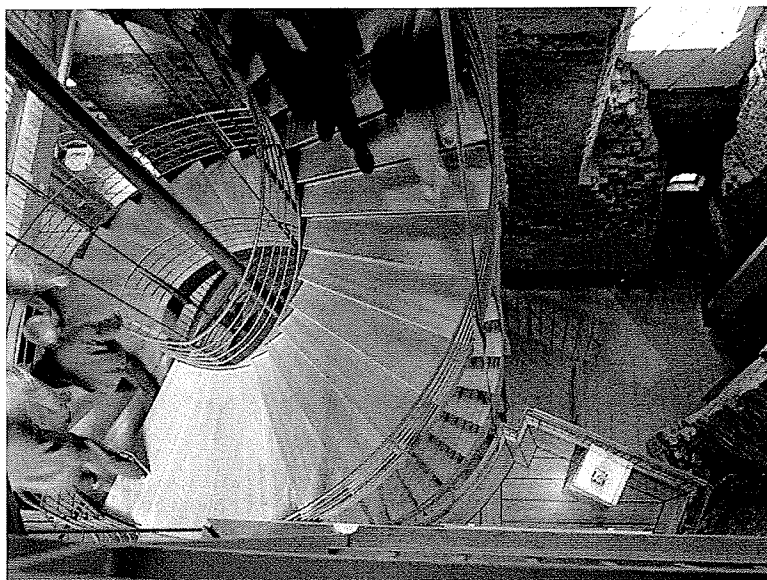
Interior view of ruin hall; South wing looking West.

Photograph by Friis Fotografi.

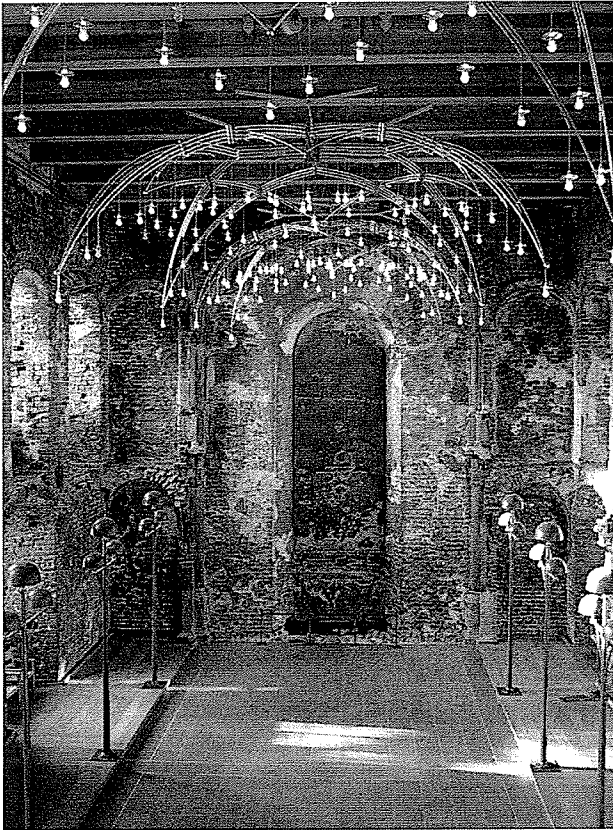
Courtesy Poul Dedenroth-Schou, Koldinghus.



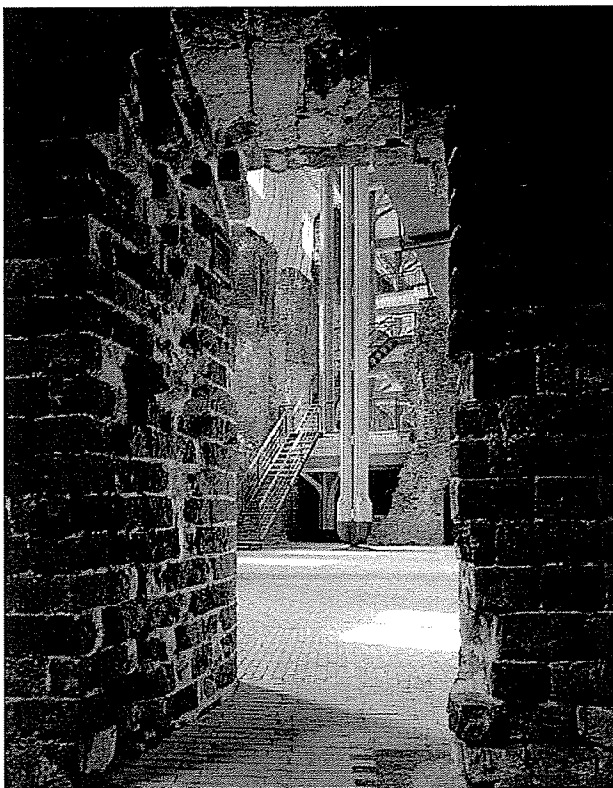
*Figure 2.2*  
Koldinghus Castle, Kolding,  
Denmark, 13<sup>th</sup> century  
commission.  
Restoration from 1972-1994  
by Inger and Johannes Exner.  
Freestanding columns support  
a timber roof structure,  
inserted within the ruin.  
Photograph by James N.  
Weatherall.  
Courtesy James N. Weatherall.



*Figure 2.3*  
Koldinghus Castle, Kolding,  
Denmark, 13<sup>th</sup> century  
commission.  
Restoration from 1972-1994  
by Inger and Johannes Exner.  
Suspended stairs are inserted  
within the ruin walls.  
Photograph by James N.  
Weatherall.  
Courtesy James N. Weatherall.



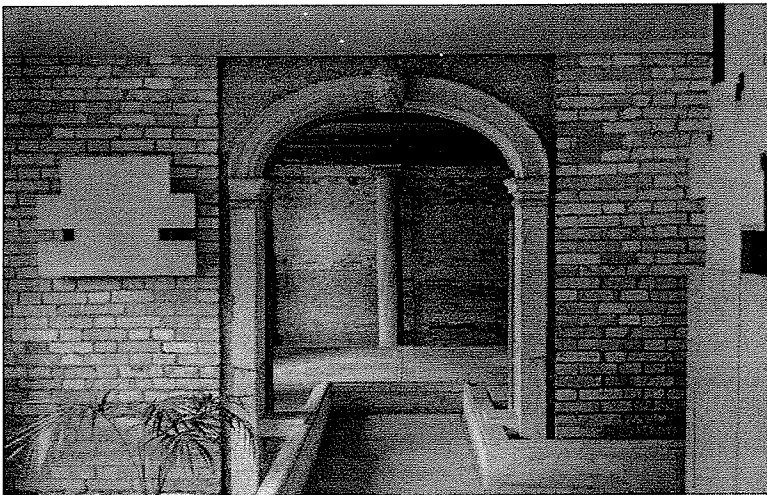
*Figure 2.4*  
Koldinghus Castle, Kolding, Denmark,  
13<sup>th</sup> century commission. Restoration  
from 1972-1994 by Inger and Johannes  
Exner.  
Interior view of the Castle chapel.  
Photograph by James N. Weatherall.  
Courtesy James N. Weatherall.



*Figure 2.5*  
Koldinghus Castle, Kolding, Denmark,  
13<sup>th</sup> century commission. Restoration  
from 1972-1994 by Inger and Johannes  
Exner.  
Interior view of ruin hall; South wing  
looking East through a hole  
characterized by historically significant  
traces.  
Photograph by Friis Fotografi.  
Courtesy Poul Dedenroth-Schou,  
Koldinghus.

*Copyrighted image not available.*

*Figure 3.1*  
Ca'Foscari, Venice, Italy. Intervention,  
1935-37, Carlo Scarpa.  
Design intervention whereby a new  
window is layered and screened  
against the historic fabric of the old  
window.  
Photograph by Michele Buda.  
Courtesy Collection Archivio Carlo  
Scarpa, Trevignano.



*Figure 3.2*  
Fondazione Querini Stampalia,  
Venice, Italy. Intervention, 1961-63,  
Carlo Scarpa.  
View through arch of degraded brick  
contrasting new brick wall.  
Photograph by Jonas Lehrman.  
Courtesy Jonas Lehrman.

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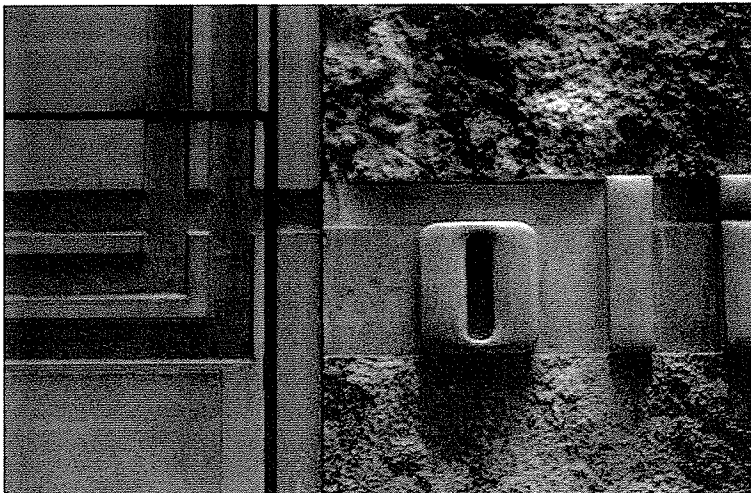
*Figure 3.3*  
Castelvecchio Museum, Verona, Italy.  
Intervention, 1956-73, Carlo Scarpa.  
Exhibitions are adapted to the historic interior as an additive layer.  
Photograph by Guido Guidi.  
Courtesy the Canadian Centre for Architecture.

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*Figure 3.4*  
Olivetti showroom, Venice, Italy. Intervention, 1957-58, Carlo Scarpa.  
Side façade and entrance of the Olivetti showroom.  
Photograph by Paolo Monti.  
Courtesy the Canadian Centre for Architecture.

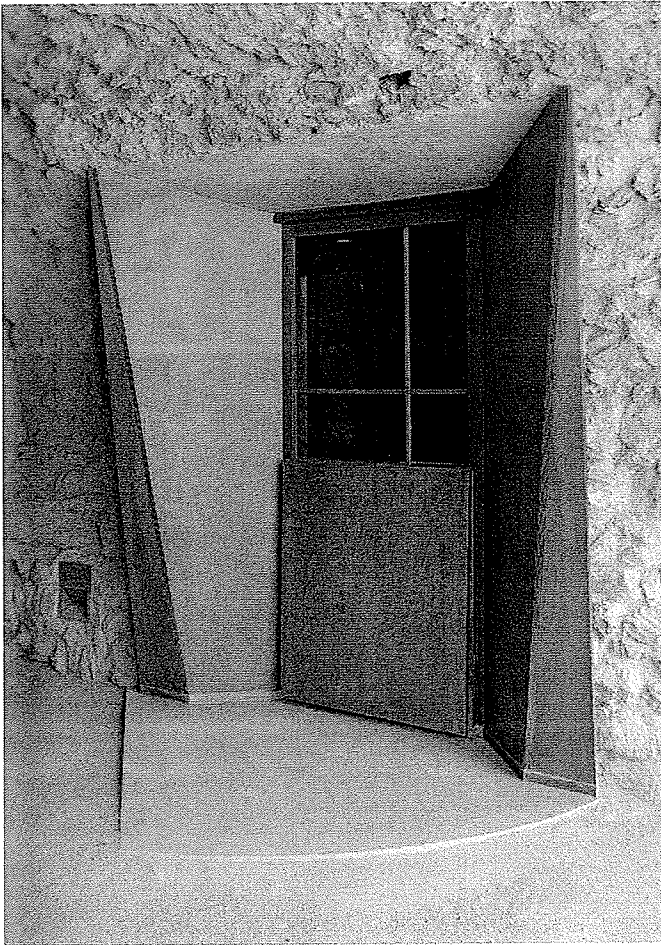


*Figure 3.5*  
Olivetti showroom, Venice,  
Italy. Intervention, 1957-58,  
Carlo Scarpa.  
The Olivetti façade is detailed  
in order to accept and  
anticipate weathering in time.  
Photograph by Jonas Lehrman.  
Courtesy Jonas Lehrman.

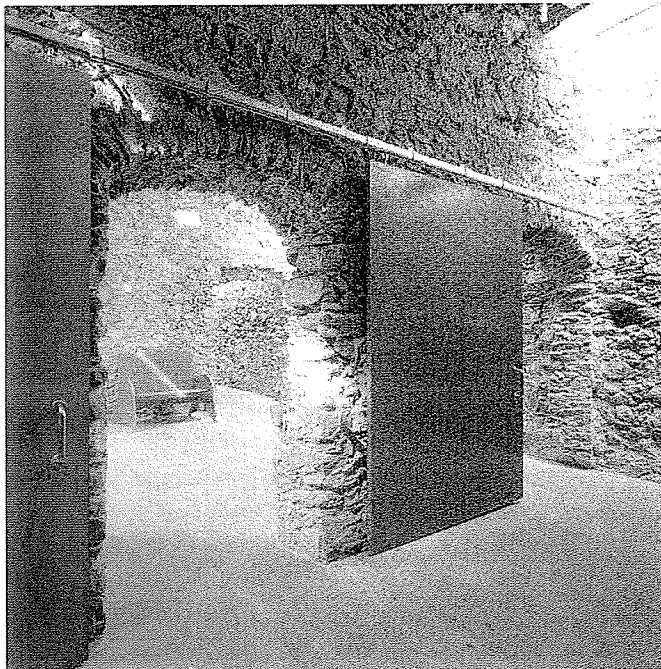


*Figure 3.6*  
Olivetti showroom, Venice,  
Italy. Intervention, 1957-58,  
Carlo Scarpa.  
Detailed view of channels  
integrated into the base of  
lettering of the Olivetti façade.  
Photograph by Jonas Lehrman.  
Courtesy Jonas Lehrman.

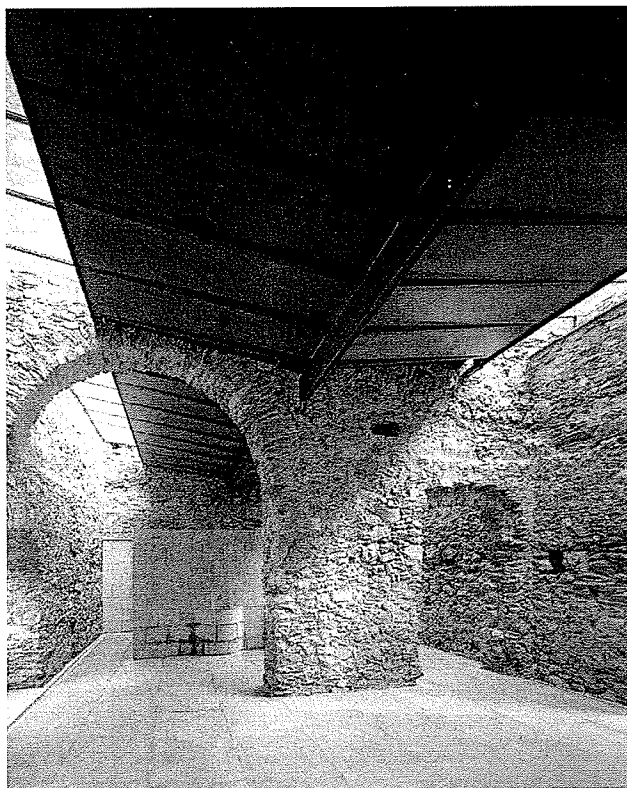




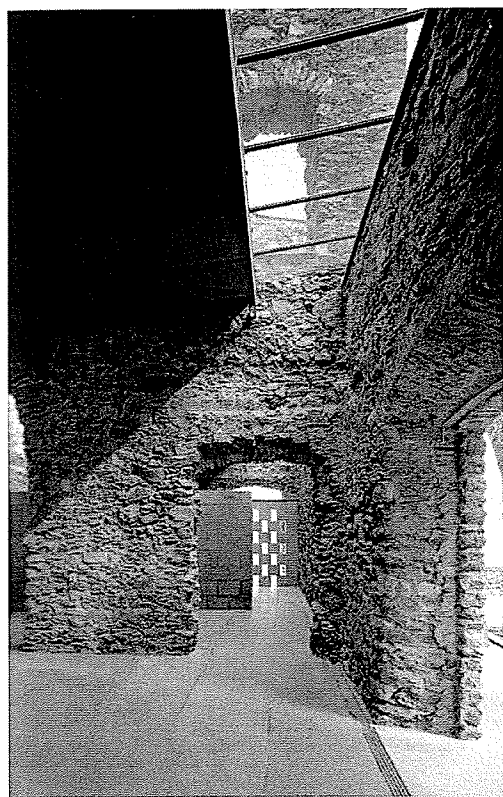
*Figure 4.1*  
Sant Pere de Rodes, Port de la Selva,  
Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez  
Lapena and Elias Torres Tur.  
Intervention into transition space exploits  
functional elements such as existing doors.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



*Figure 4.2*  
Sant Pere de Rodes, Port de la Selva,  
Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez  
Lapena and Elias Torres Tur.  
Sliding panels as intervention frame existing  
arches.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.

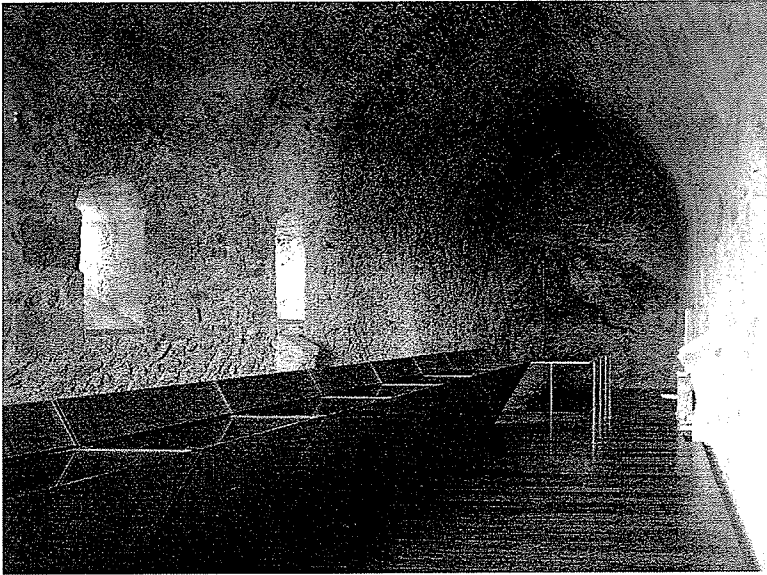


*Figure 4.3*  
Sant Pere de Rodes, Port de la Selva,  
Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez  
Lapena and Elias Torres Tur.  
Roof planes are inserted within the historic  
fabric.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.

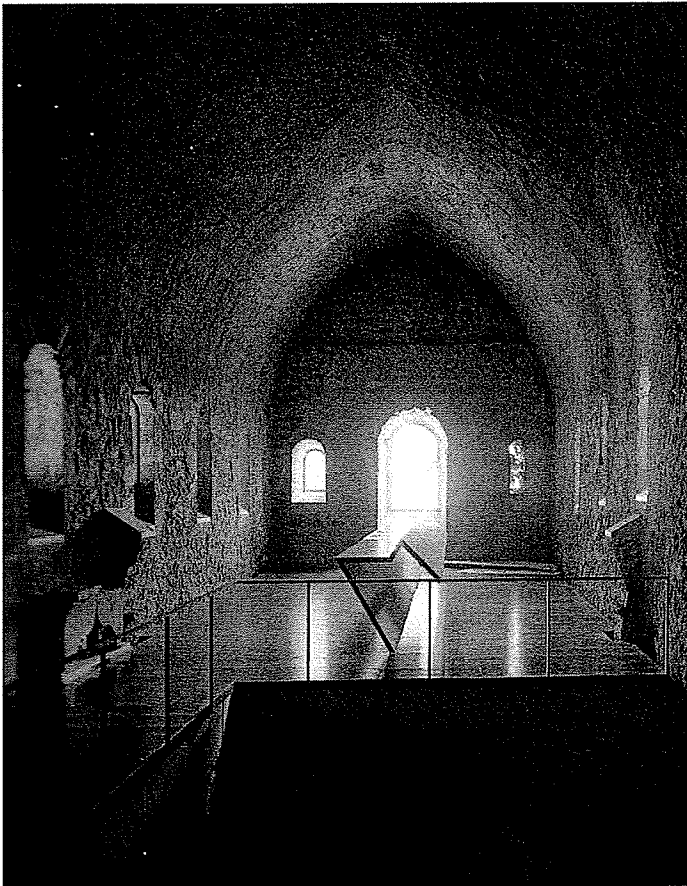


*Figure 4.4*  
Sant Pere de Rodes, Port de la Selva, Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez Lapena and  
Elias Torres Tur.  
Detail of roof planes, which do not significantly alter  
the historic fabric.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.

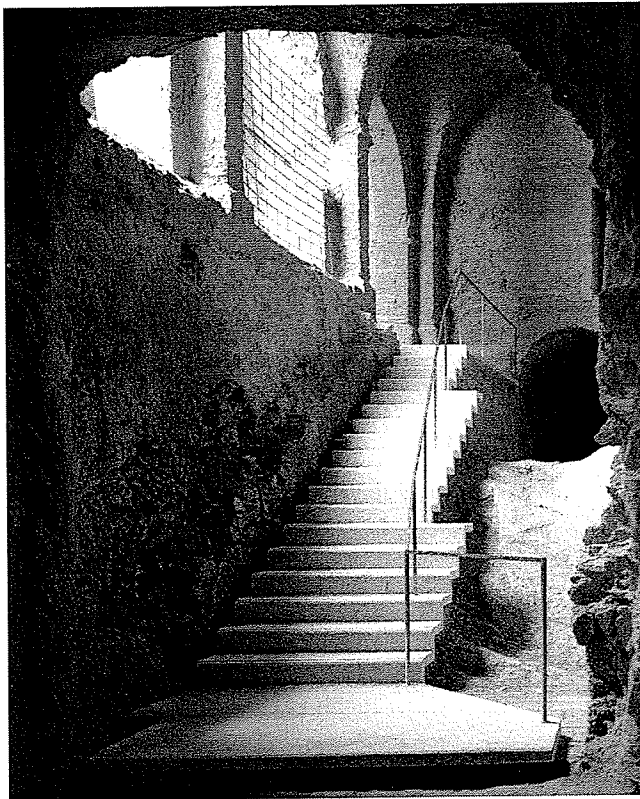




*Figure 4.5*  
Sant Pere de Rodes, Port de la Selva, Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez Lapena and Elias Torres Tur.  
Display cases are sensitively designed in relationship to the old refectory.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



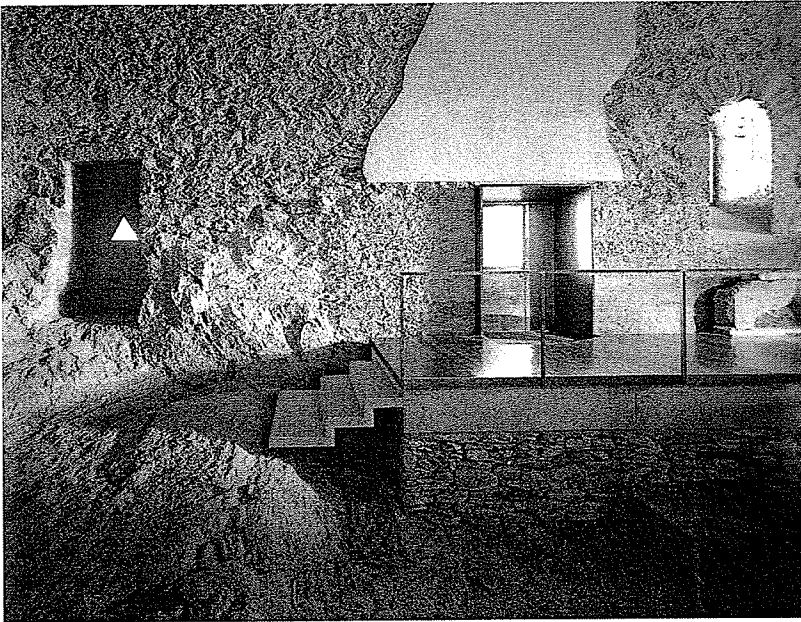
*Figure 4.6*  
Sant Pere de Rodes, Port de la Selva, Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez Lapena and Elias Torres Tur.  
Display cases within the old refectory exploit massing and void.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



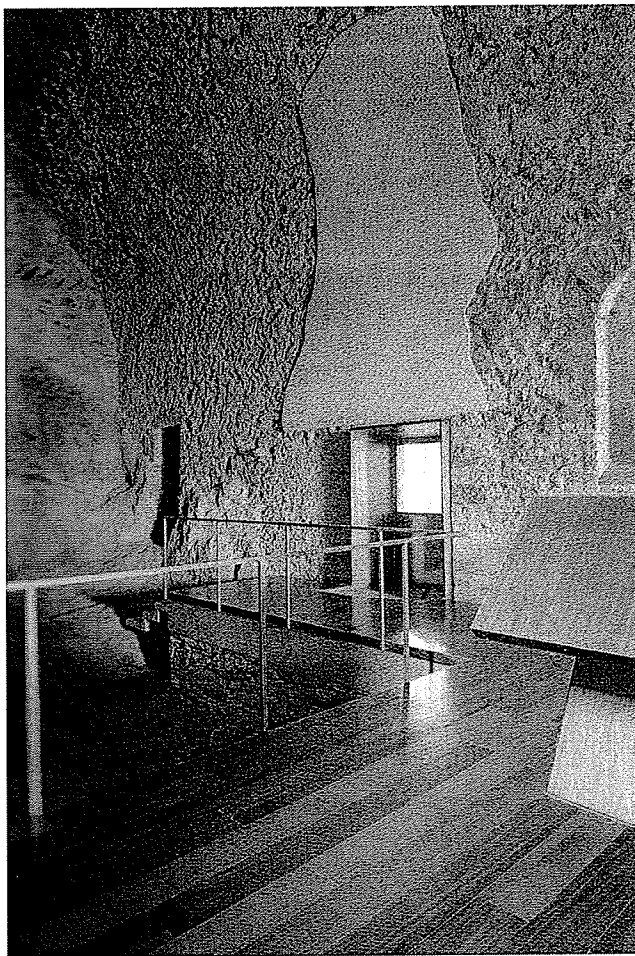
*Figure 4.7*  
Sant Pere de Rodes, Port de la Selva,  
Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez  
Lapena and Elias Torres Tur.  
Concrete stairs are layered over existing  
stair remains.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



*Figure 4.8*  
Sant Pere de Rodes, Port de la Selva,  
Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez  
Lapena and Elias Torres Tur.  
Wood bridge on concrete pillars is  
suspended over significant archaeological  
excavations.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



*Figure 4.9*  
Sant Pere de Rodes, Port de la Selva, Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez Lapena and Elias Torres Tur.  
Sandstone ashlar is introduced above a door opening in anticipation of degradation.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



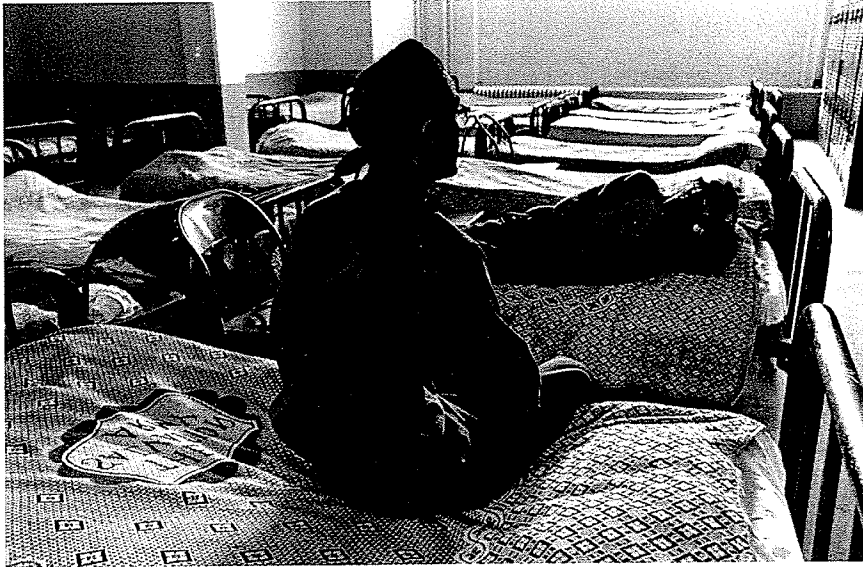
*Figure 4.10*  
Sant Pere de Rodes, Port de la Selva, Catalonia, Spain.  
Intervention, 1993, Jose Antonio Martinez Lapena and Elias Torres Tur.  
Detail view of sandstone ashlar.  
Photograph by Hisao Suzuki.  
Courtesy El Croquis Editorial.



*Figure 5.1*  
Salvation Army Citadel,  
Winnipeg, Manitoba,  
c. 1960-1975.  
Harbour Light Rehabilitation  
Centre dining hall.  
Photographer unknown.  
Courtesy the Winnipeg  
Tribune Photograph  
Collection.



*Figure 5.2*  
Salvation Army Citadel,  
Winnipeg, Manitoba, c. 1960-  
1975.  
Harbour Light Rehabilitation  
Centre dining hall.  
Photographer unknown.  
Courtesy the Winnipeg  
Tribune Photograph  
Collection.

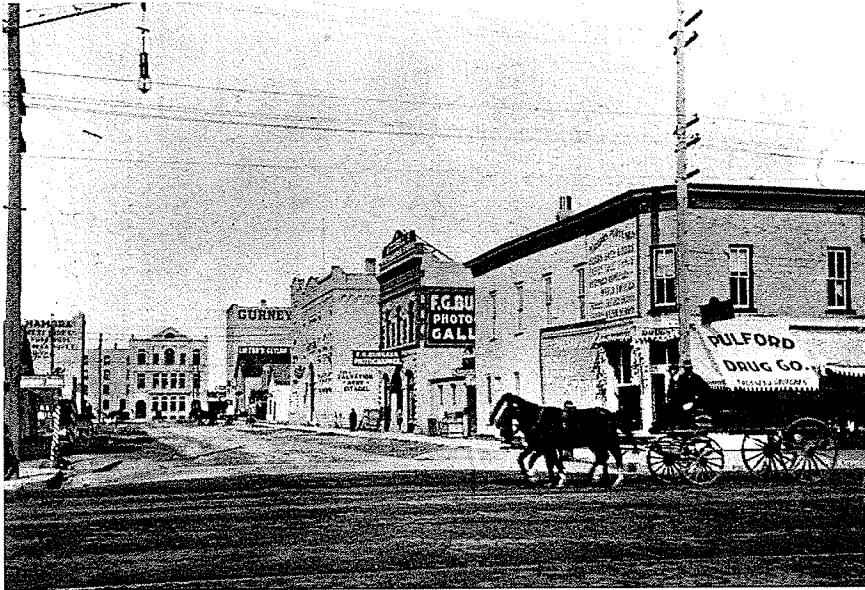


*Figure 5.3*  
Salvation Army Citadel,  
Winnipeg, Manitoba,  
c. 1960-1975.  
Harbour Light  
Rehabilitation Centre  
dormitory.  
Photographer unknown.  
Courtesy the Winnipeg  
Tribune Photograph  
Collection.

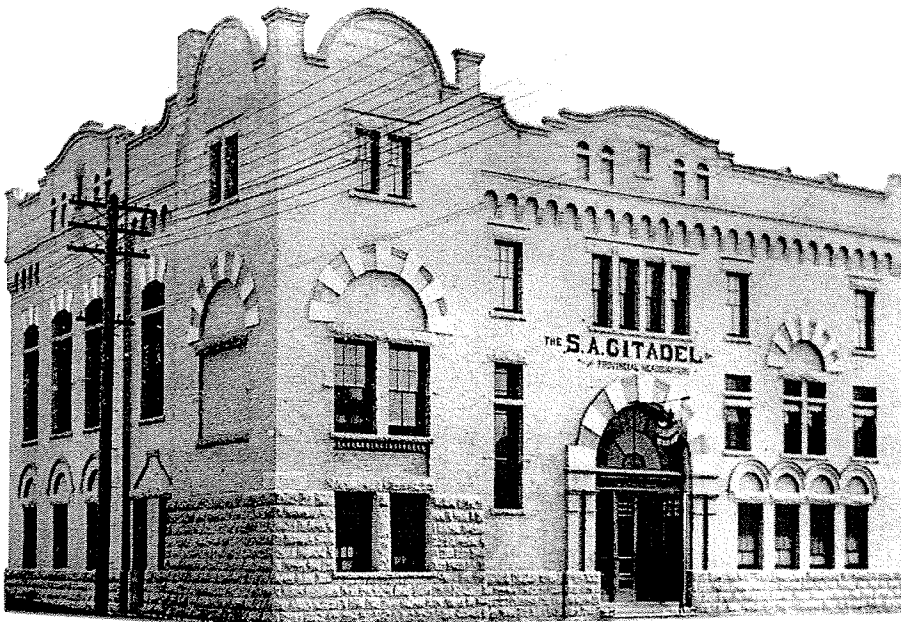


*Figure 5.4*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 1972.  
Harbour Light Rehabilitation Centre  
dining hall; Major Austin Millar, director  
of the Winnipeg and Toronto Harbour  
Light Centre.  
Photographer unknown.  
Courtesy the Winnipeg Tribune  
Photograph Collection.





*Figure 5.5*  
Rupert Street looking West  
from Main Street, Winnipeg,  
Manitoba, 1903.  
Exterior view of the Salvation  
Army Citadel prior to  
construction of 219 Rupert  
Avenue, retail stores.  
Photograph courtesy the  
Provincial Archives of  
Manitoba, Outsize 133/314  
(N1592).



*Figure 5.6*  
Salvation Army Citadel,  
Winnipeg, Manitoba,  
1900. R. J. Whitla.  
Exterior South-West view  
of Citadel, 1903.  
Photograph courtesy the  
Provincial Archives of  
Manitoba, Outsize  
133/131 (N1540).



*Figure 5.7*  
Salvation Army Citadel,  
Winnipeg, Manitoba, 1900.  
R. J. Whitla.  
Exterior South view of  
Citadel, 1915.  
Photograph courtesy the  
Provincial Archives of  
Manitoba, Foote 1795  
(N2787).



*Figure 6.1*  
Salvation Army Citadel,  
Winnipeg, Manitoba, 2004.  
Primary South entry to  
Citadel; view of staircase  
characterized by a split path.  
Photograph by Brianne  
Caron.

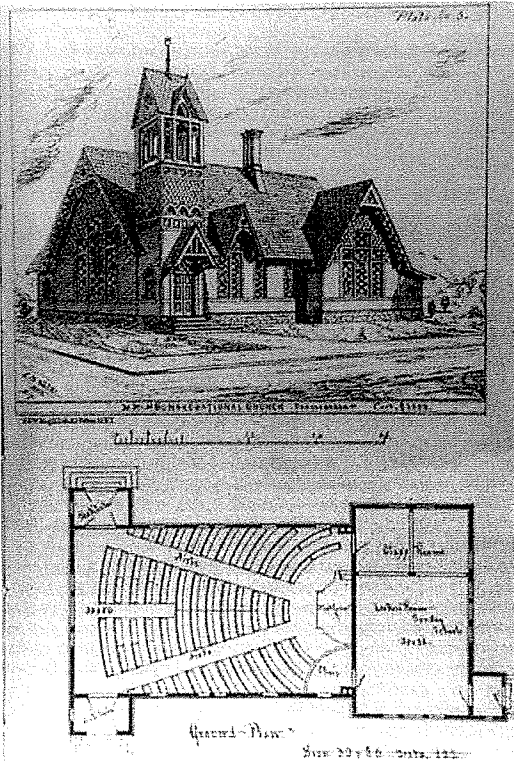


Figure 6.2

Perrysburgh Congregational Church,  
Perrysburgh, Ohio, 1879.

Lawrence B. Valk.

The spatial-cone within Perrysburgh is  
characteristic to that of the Citadel's.  
Public domain image.

Courtesy Special Collections and Rare  
Books, University of Minnesota Libraries.

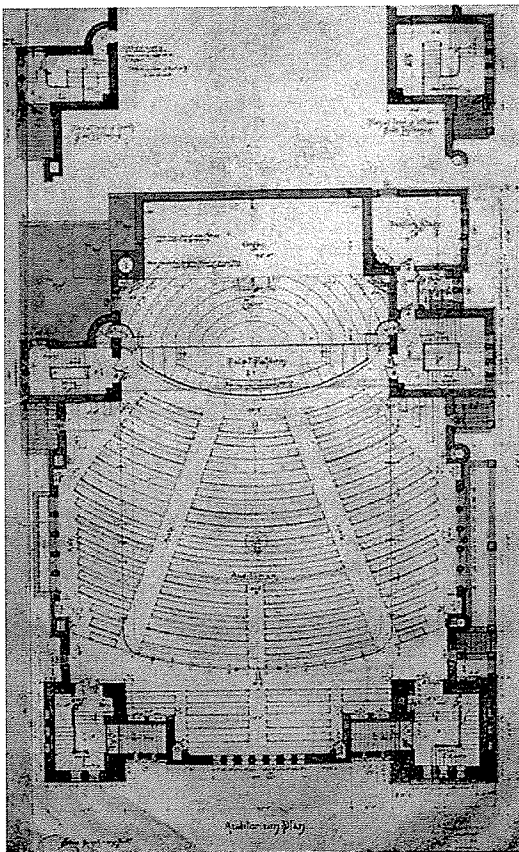


Figure 6.3

Trinity M.E. Church, Denver, Colorado,  
1888. Robert S. Roeschlaub.

Trinity M.E. Church is characterized by  
curvilinear seating oriented towards the  
pulpit; an element common to the  
auditorium sanctuary, derived from theatre  
design.

Public domain image.

Courtesy Colorado Historical Society  
(92.275.144), drawing by Robert S.  
Roeschlaub.

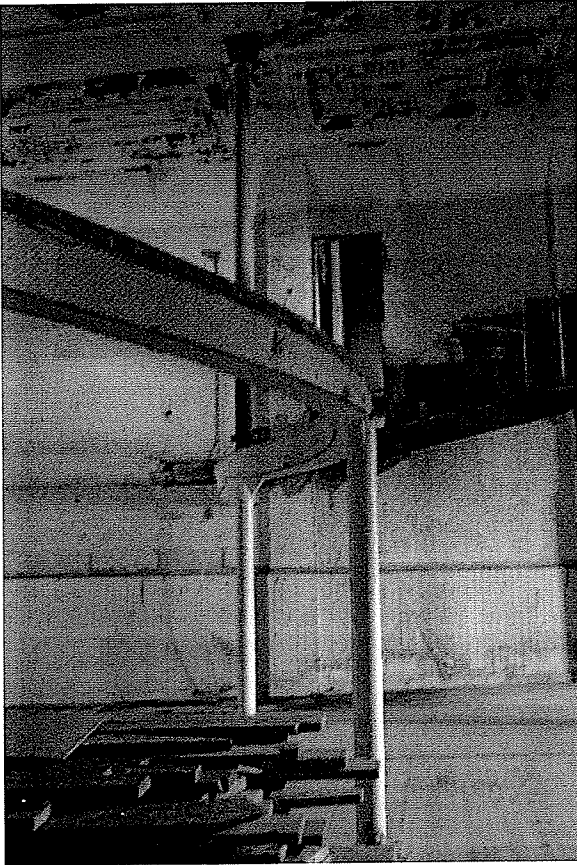




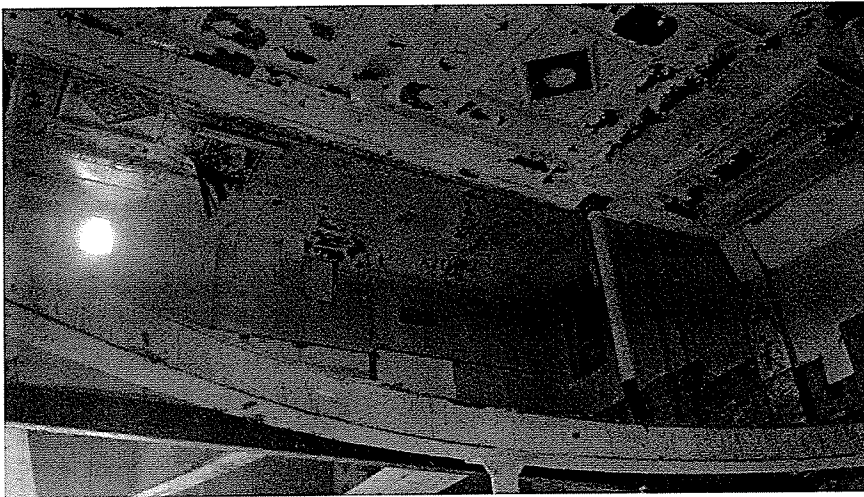
*Figure 6.4*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Cast iron columns; significant architectural  
elements within the Citadel interior.  
Photograph by Brianne Caron.



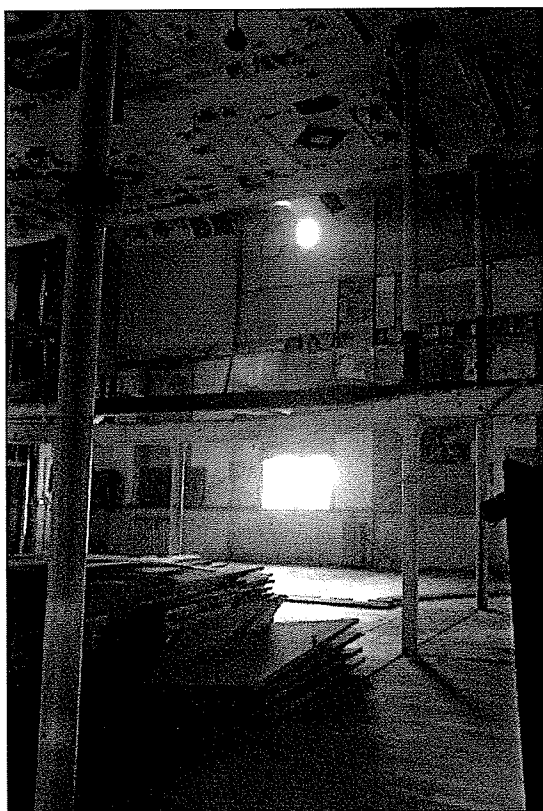
*Figure 6.5*  
Salvation Army Citadel,  
Winnipeg, Manitoba, 2004.  
Traces inscribed in the  
wood floor within the third  
floor auditorium sanctuary.  
Photograph by Brianne  
Caron.



*Figure 6.6*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Inverted cast-iron beam is the  
remaining significant physical artifact  
of the original third level gallery  
within the auditorium sanctuary.  
Photograph by Brianne Caron.



*Figure 6.7*  
Salvation Army  
Citadel, Winnipeg,  
Manitoba, 2004.  
Inverted cast-iron  
beam is the remaining  
significant physical  
artifact of the original  
third level gallery  
within the auditorium  
sanctuary.  
Photograph by Brianne  
Caron.



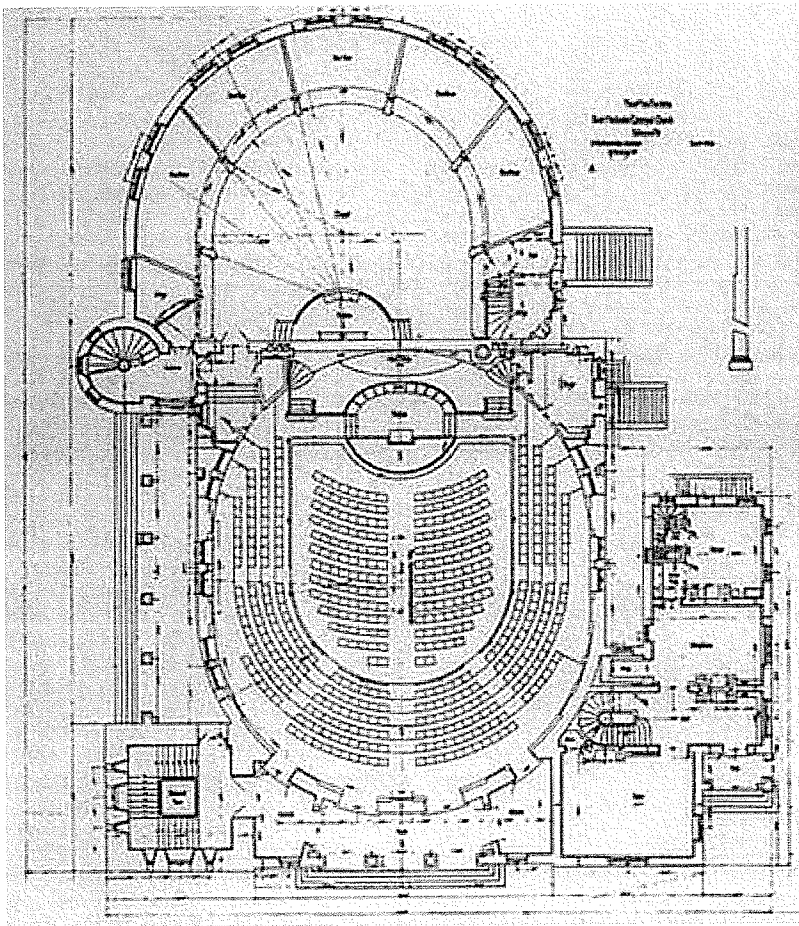
*Figure 6.8*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Third level gallery within the auditorium  
sanctuary; view West.  
Photograph by Brianne Caron.



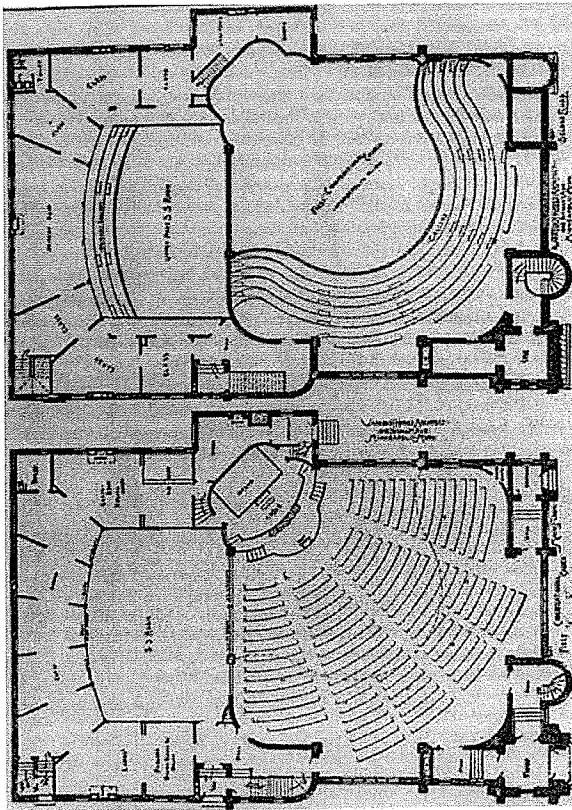
*Figure 6.9*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Traces outlined on third level North and  
South walls indicate stepped segments of  
the original gallery.  
Photograph by Brianne Caron.



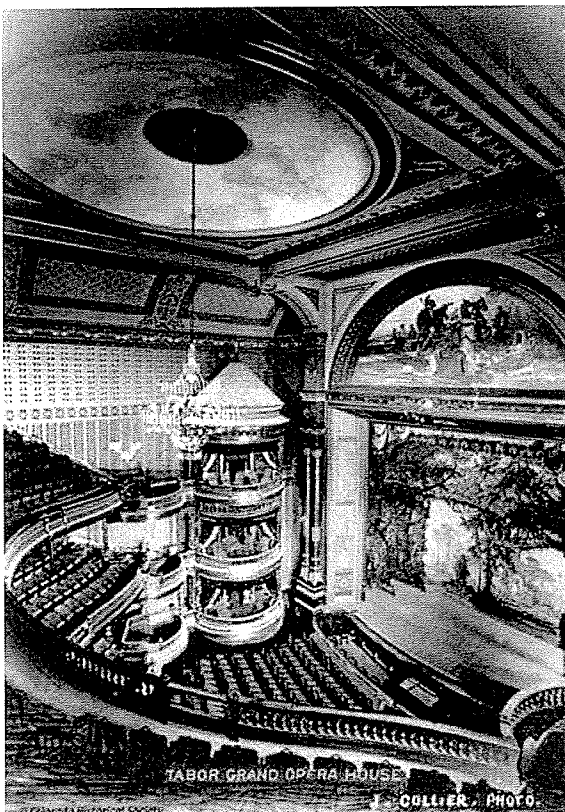
*Figure 6.10*  
Salvation Army Citadel,  
Winnipeg, Manitoba,  
2004.  
Traces outlined on third  
level North and South  
walls indicate stepped  
segments of the original  
gallery.  
Photograph by Brianne  
Caron.



*Figure 6.11*  
First M.E. (Lovely Lane  
United Methodist) Church,  
Baltimore, Maryland,  
1884. Stanford White.  
Horse-shoe gallery form  
encircling the sanctuary is  
attributed to the social  
effect of surveillance.  
Constructed within the  
same timeframe as the  
Citadel.  
Public domain image.  
Courtesy First M.E. Church.

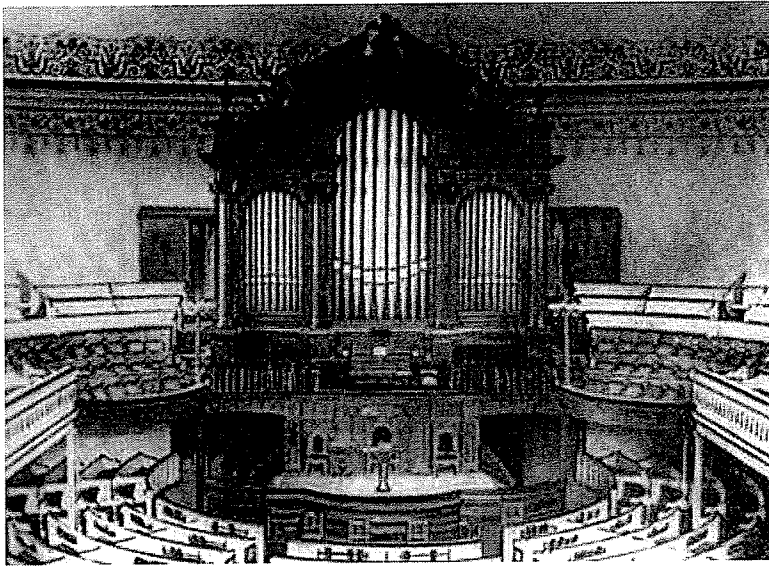


*Figure 6.12*  
First Congregational Church,  
Minneapolis, Minnesota, 1888. Warren  
H. Hayes.  
First Congregational features an  
alternative variation of the gallery,  
similar to that of the Citadel's.  
Public domain image.  
Courtesy the Congregational Publishing  
Society, Boston, Massachusetts.

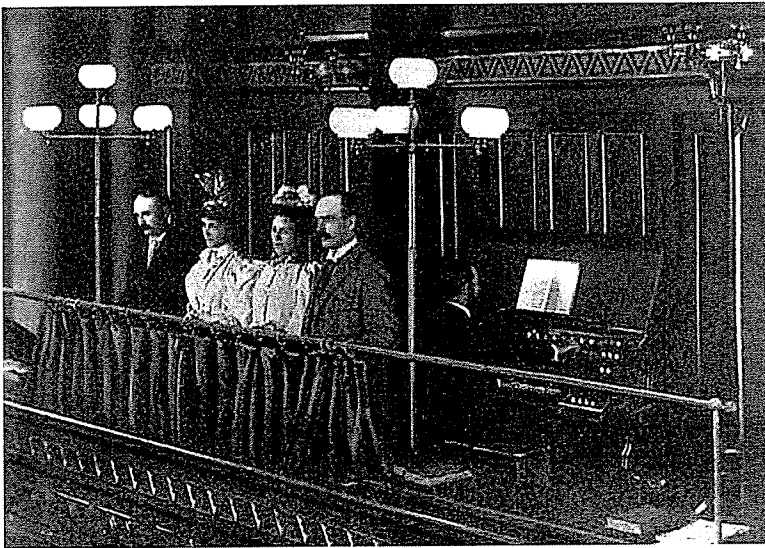


*Figure 6.13*  
Tabor Grand Opera House, Denver,  
Colorado, 1881.  
Later adapted to a church, the opera  
house illustrates the historic relationship  
between church and theatre; the opera  
house also characterized by a  
curvilinear gallery.  
Public domain image.  
Courtesy the Colorado Historical  
Society (S0025104), photograph by J.  
Collier.

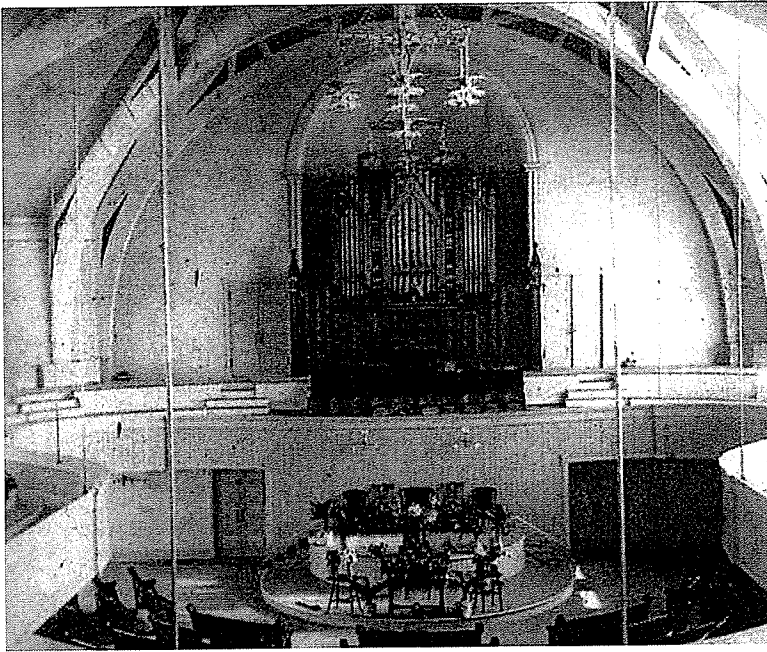




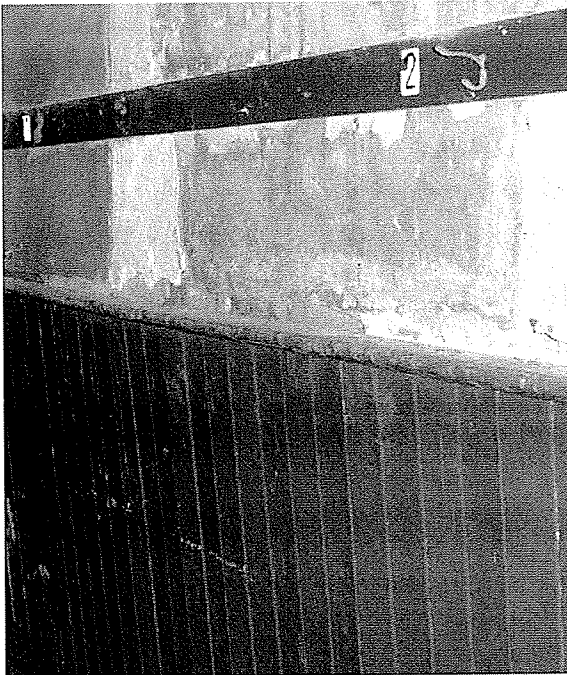
*Figure 6.14*  
Plymouth Church, Brooklyn,  
New York, 1850. Stephen M.  
Griswold.  
The sanctuary retains a  
division creating a distinction  
between clerical and musical  
performance.  
Public domain image.  
Courtesy Revell.



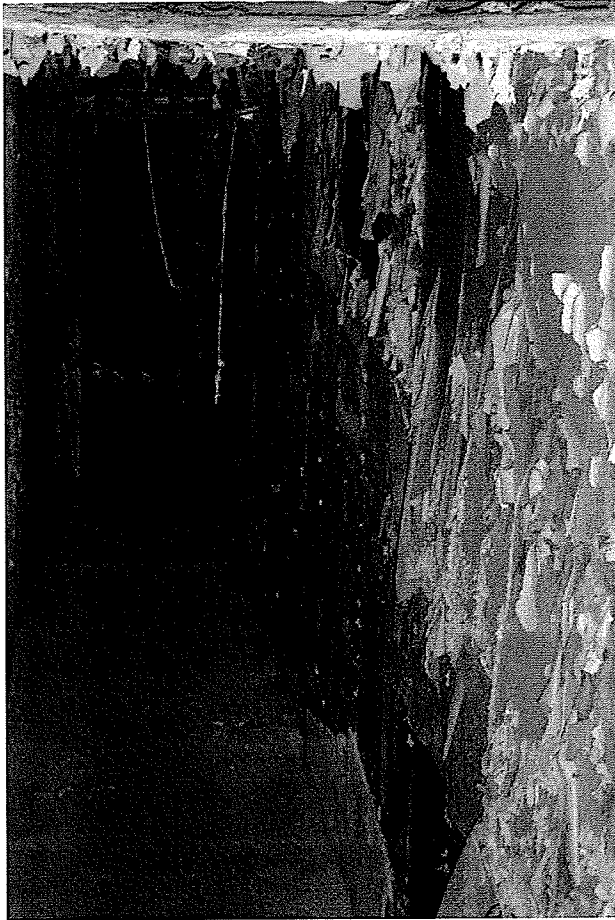
*Figure 6.15*  
First Presbyterian Church,  
Chicago, Illinois, 1874. Philo  
Adams Otis.  
Choir lofts within auditorium  
sanctuaries typically retained  
separation by panels or  
railings.  
Public domain image.  
Courtesy Revell.



*Figure 6.16*  
First Congregational Church,  
Manistee, Michigan, 1887.  
William LeBaron Jenney.  
Church prosceniums were used to  
visually frame the performance,  
such as the function of the theatre  
proscenium.  
Public domain image.  
Courtesy Manistee County  
Historical Museum, Manistee,  
Michigan.



*Figure 6.17*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Wainscot, a significant architectural  
detail which defines the sub-level  
interior.  
Photograph by Brianne Caron.



*Figure 6.18*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Peeled paint within the sub-level  
interior provides a historic record.  
Photograph by Brianne Caron.

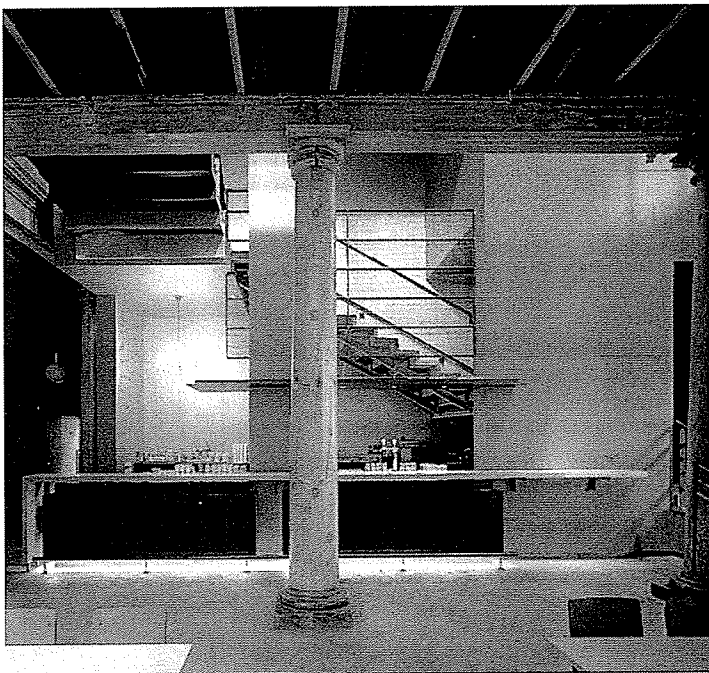


*Figure 7.1*  
Trust Theatre,  
Amsterdam, 1793.  
Intervention, 1995,  
Mecanoo Architects.  
View of church interior  
prior to design  
intervention; a double  
colonnade of wood  
Tuscan columns forms  
the church interior.  
Photograph by Francine  
Houben.  
Courtesy Mecanoo  
Architects.

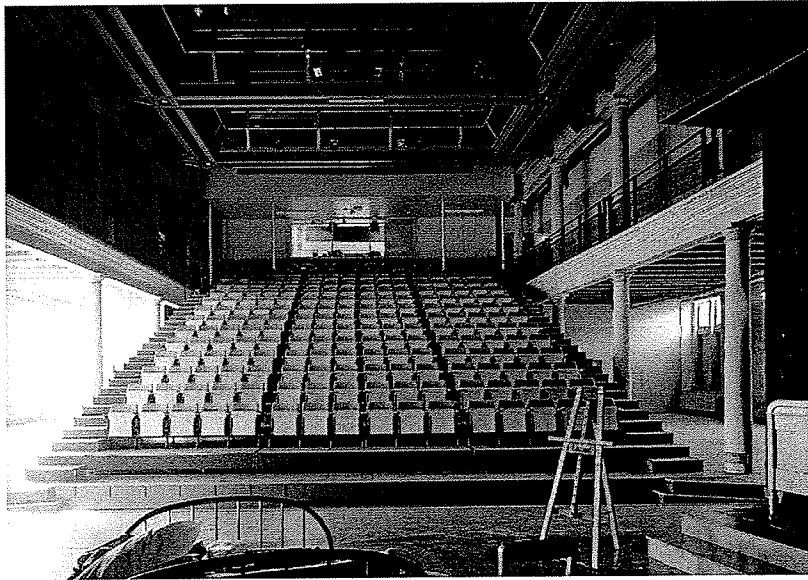




*Figure 7.2*  
Trust Theatre, Amsterdam, 1793.  
Intervention, 1995, Mecanoo  
Architects.  
View of vertical circulation.  
Photograph by Francine Houben.  
Courtesy Mecanoo Architects.



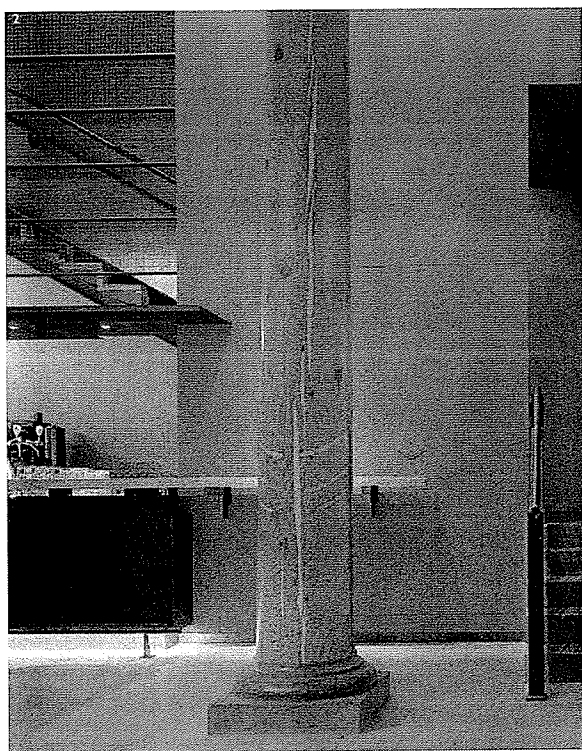
*Figure 7.3*  
Trust Theatre, Amsterdam, 1793.  
Intervention, 1995, Mecanoo  
Architects.  
View of service area.  
Photograph by Francine Houben.  
Courtesy Mecanoo Architects.



*Figure 7.4*  
Trust Theatre, Amsterdam,  
1793.  
Intervention, 1995, Mecanoo  
Architects.  
Seating located between  
colonnaded galleries rests on  
a floating floor within the  
auditorium, revealing church  
within theatre.  
Photograph by Francine  
Houben.  
Courtesy Mecanoo  
Architects.



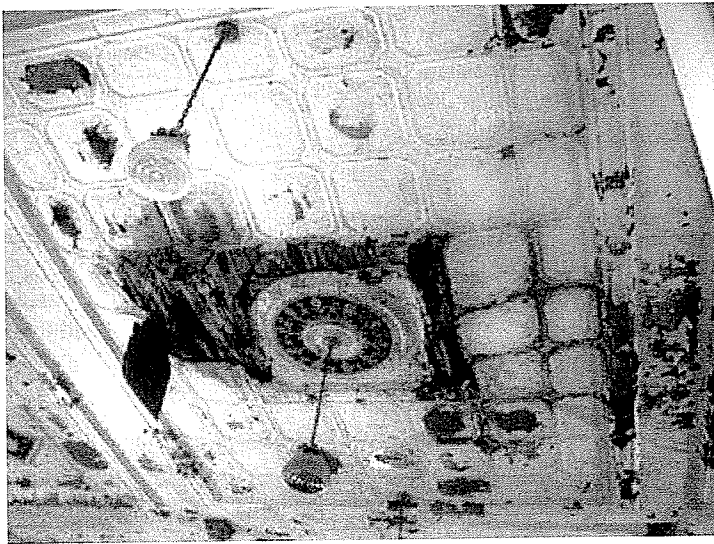
*Figure 7.5*  
Trust Theatre, Amsterdam,  
1793.  
Intervention, 1995, Mecanoo  
Architects.  
A black box theatre stage is  
formed by moveable black  
curtains which fall over  
existing untreated brick  
walls.  
Photograph by Francine  
Houben.  
Courtesy Mecanoo  
Architects.



*Figure 7.6*  
Trust Theatre, Amsterdam, 1793.  
Intervention, 1995, Mecanoo Architects.  
Detail view of column in which  
centuries of layered paint are removed to  
reveal original wood.  
Photograph by Francine Houben.  
Courtesy Mecanoo Architects.



*Figure 8.1*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Pressed tin ceiling pattern defines the  
auditorium sanctuary ceiling.  
Photograph by Brianne Caron.



*Figure 8.2*  
Salvation Army Citadel, Winnipeg,  
Manitoba, 2004.  
Pressed tin ceiling pattern defines  
the auditorium  
sanctuary ceiling.  
Photograph by Brianne Caron.

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