Prognostic Architecture

an Alternative to Heritage Conservation

By

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ABSTRACT

Heritage Conservation practises comprise a material-fixated understanding of heritage value in monuments. The erroneous attribution of heritage value exclusive to tangible built elements results in a largely diagnostic conservation methodology. The diagnostic method concentrates its efforts on the maintenance and repair of the existing built monument, but neglects to consider the less tangible heritage values as worthy of conservation, such as tradition, use and spirit. This narrow view overlooks the most important quality necessary to the continued vitality of heritage monuments, a useful program, and results ultimately in functional obsolescence. Functional obsolescence reduces architecture to sculpture – an alternative to a diagnosis based methodology is needed. Prognostic conservation prioritizes program as a heritage value in own right, and employs a holistic approach to design when re-integrating an obsolete monument into the social order. Prognostic conservation allows monuments to interact not as museum-pieces but as functional and useful components of the greater organism – the city.

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This thesis is dedicated in loving memory to my grandfather, Indulis Preiss.

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PROLOGUE

Situated on the corner of Elgin and Laurier, the First Baptist Church is one of the few remaining buildings from the original upper town settlement along the Canal when Ottawa – then Bytown – was first established. The First Baptist Church was designed by Architect James Mather and built in 1877. At the time, it was the tallest building south of Capital Hill. The church is Gothic Revivalist in style much like the parliament buildings completed a decade prior. The limestone structure is 99 feet long by 66 feet wide. While the orientation of the exterior follows a North-South axis, the interior was designed as a raked amphitheatre, facing the west wall and baptistery.

FIG 1 ARCHIVE PHOTO 1954

In 1914, an addition was approved by the congregation to append an annex to the west. This addition provided bathrooms, offices, and administrative spaces. At this time, the baptistery was raised to the second floor, and an organ chamber was located in the spacious attic. A significant structural undertaking; the connection between the new annex and the existing hall required a seven meter two storey arch to connect the sanctuary space to the addition.

FIG 2 ARCHIVE PHOTO 1955

In 1928, significant structural damage caused by a leak between the annex and the sanctuary resulted in a considerable remodel of the church. Under the supervision of Architect A.J. Hazelgrove, the amphitheatre seating was modified to a into a chancel arrangement, the new interior following the building's north-south orientation. The pulpit and lectern

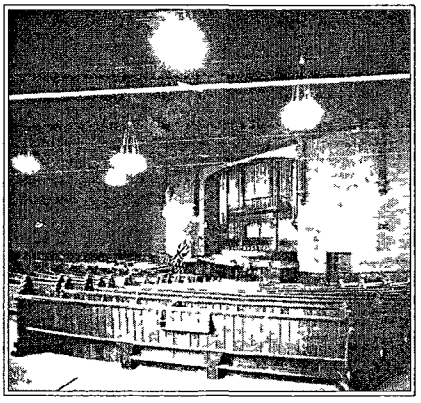


FIG 3 ARCHIVE PHOTO 1928

were accordingly relocated against the south wall, as was the choir. The organ console was recessed into the floor in the same area. The west wall, still housing the baptistery, was altered to the current, two-door configuration. The original single door, located just north of the arch, was closed off and now functions as a small broom closet accessible from the annex.

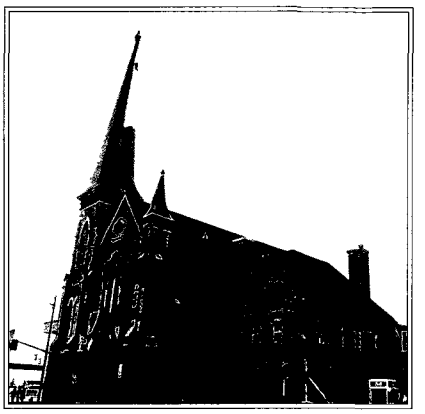


FIG 4 FBC EXTERIOR, 2010

The last of the major renovations to the interior occurred in 1966. The 3rd floor gallery at the north end of the sanctuary was extended to accommodate a new Casavant Freres organ, the console, and the seating for the choir. The third floor of the annex, the former location of the organ pipes, was emptied and closed off, though several of the largest pipes were unable to be removed, and remain in the attic space to this day.

FIG 5 FBC INTERIOR 2010

As of this writing, the church is considering the addition of an elevator, to extend from the basement of the original edifice, up into the sanctuary space below the choir gallery and organ.

INTRODUCTION

There is a common and general desire to preserve what society has created for posterity. The field of heritage conservation was developed to fulfill this particular desire with regard to built heritage, and has proven to be an effective tool against the deterioration and destruction of monuments. However, this method of conservation as it is applied specifically to individual monuments has direct and negative implications. What are the consequence of heritage designation?

I will argue that once designated as heritage, a building becomes a medicalized entity. Heritage monuments are stripped of their dignity as architecture and are treated instead as patients. In a process that mirrors modern medicine's obsession with the aesthetics of youth, the greater age of the building results in more radical conservation efforts. The fixation with aging relegates all heritage buildings, regardless of architectural health, into the role of the medical patient.

While heritage designation is intended to raise the cultural value of a building, hidden in designation is a rigorous health regimen to preserve historic qualities. It is precisely this regimen that ultimately leads to the functional obsolescence that often causes the death of a monument. Under the guise of preserving our history, heritage designation halts the natural life cycle of a building. The unique ability of architecture to remain relevant within society depends upon its ability to adapt programmatically. Conservation discourages and often prevents the functional adaptation of monuments. Eventually, this preclusion leads to dead bodies dressed in the guise of lively architecture; museum pieces for historical evidence. This

is antithetical to architecture. Without function, architecture degenerates into sculpture.

Monuments-that-once-were-architecture, that is to say, heritage buildings, are the direct result of a predominantly diagnostic treatment in the conservation process. The hallmark of diagnosis is the ability to discern the disease and deal specifically with the cause in order to return the body to its previous healthful state. However, the diagnostic method lacks the apparatus to appreciate a building holistically - a complete understanding of the building as opposed to one which deals only in specifics. Diagnosis cannot distinguish the greater issues of functional obsolescence from the minor issues such as leaks, mould, or disrepair. It is my opinion that the practice of diagnostic heritage conservation is built upon the International Council on Monuments and Sites (ICOMOS)'s canon that suggests value lies in materiality and not usefulness. Current practice, with this narrowed view, rather than conserving our heritage, is causing the obsolescence of monuments.

A preserved state of sterile emptiness caused by diagnostic heritage conservation is not the only conclusion for functionally obsolete heritage buildings. In fact, a transformative fate – one that allows for the reanimation of an obsolete building - is precisely what these monuments require. This is the start of the heritage revolution; one that views the functional obsolescence of a building as a means through which to facilitate reanimation. Designated buildings should not be embalmed to deny the passage of time. A new approach is necessary. The answer lies in prognosis.

This thesis proposes an alternative to heritage conservation. It will begin with an analysis of ICOMOS doctrine and current heritage designation practices. The first chapter will illustrate the material-focused value system established by the *Venice Charter* as it is applied specifically to the individual monument. Subsequent

documents ratified by ICOMOS will be analyzed against the canon of the *Venice Charter* to illustrate the ineffectual and often adverse effects of a material centric conservation practice. This understanding of heritage designation and conservation will be demonstrated to mirror closely the medical practice of diagnosis. An alternative to the highly medicalized diagnostic method of conservation will be offered in the form of prognosis. In order to better establish the effectiveness of a prognostic alternative to conservation, this thesis will then analyze the role function plays in the vitality of architecture, and further, how the vitality found in an individual monument directly affects the city in which it resides. I will then return to the prognostic practice as it relates to heritage buildings, termed *Prognostic Conservation*, to establish an approach and methodology. This thesis will finally conclude with an architectural project which applies the prognostic method to the conservation of the First Baptist Church in Ottawa.

HERITAGE CONSERVATION • *a first look*

1

The field of heritage conservation concerns itself with the identification and preservation of cultural heritage phenomena against the ruin of time and wilful destruction. The International Council on Monuments and Sites (ICOMOS) is the accepted authoritative body that establishes the principles and methods through which conservation should be carried out. The collected works of ICOMOS comprise a body of rules and regulations widely referenced by conservationists and law makers, particularly in the western context.* In this chapter we will discuss the role of ICOMOS in defining heritage conservation in an attempt to reveal the peculiarities of heritage designation, and particularly, the deficiencies inherent in the understanding of material heritage value.

The *Venice Charter* was ratified by ICOMOS in 1964 and re-evaluates the principles laid forth in the *Athens Charter*, written over 30 years prior. The *Athens Charter* established a set of guidelines for the restoration of monuments, while the *Venice Charter* institutes principles for the *conservation* of monuments, which includes but limits the practice of restoration. The *Venice Charter* defines the term 'monument' in its first article, stating, "The concept of an historic monument embraces not only the single architectural work but also the urban or rural setting"[1] The Charter seeks to embrace a broader definition of heritage phenomena, beyond the single building, to encompass collections of buildings and their context. In later ICOMOS documents, the broader context of heritage phenomena is given individualized signifiers. The *Declaration of San Antonio* concerns itself with the conservation of *Cultural Landscapes*[2] and the *Vienna Memorandum* discusses *Historic Urban Landscapes*.[3]

* This thesis refers to heritage conser vation practises within the "western context which refers to the methods employed in North America, as op posed to Europe and Asia

1 "The Venice Charter (*International Council on Monuments and Sites* May 1964 Web www icomos org) art 1

2 "Declaration of San Antonio (*ICOMOS International Council on Monuments and Sites* Mar 1996 Web www icomos org)

3 Nara Document on Authenticity (*International Council on Monu ments and Sites* Jan 2005 Web www icomos org)

ICOMOS has elaborated on the precepts set out in the *Venice Charter* with subsequent documents that discuss the specifics on conservation of Historic Gardens (1981), Historic Towns and Urban Areas, (1987), and Built Vernacular Heritage (1999).[4] It may be inferred that the understanding of a monument within the heritage canon is, by and large, still considered a single architectural structure, whereas greater areas of heritage phenomena are granted individualized terms and accompanied by their own declarations.

The *Venice Charter* currently remains the most influential work guiding the preservation of monuments, understood to be individual architectural structures.[5] Subsequent documents adopted by ICOMOS, however, make obsolete the *Venice Charter*'s resolutions with regard to larger heritage phenomena like historic urban landscapes. The Charter retains jurisdiction only over the individual monument, rather than the context or landscape. Accepting this, it is possible to determine how to recognize a monument, as well as how to preserve it, by examining the articles adopted in the *Venice Charter.*

The *Venice Charter* states a monument is a building "in which is found the evidence of a particular civilization, a significant development or an historic event."[6] Monuments are considered evidence – the use of this word implies a material understanding – of historic concepts. This represents a literal understanding of heritage, where value stems directly from specific historic phenomena, from a single event to an entire civilization. The *Venice Charter* recognizes monuments as evidence of the past, thereby generating a material-focused conservation.

Articles 4 through 8 comprise the 'conservation' portion of the work, and include such assertions as, "[new] use is therefore desirable but must not change the lay-out or decoration of the building,"[7] "no new construction, demolition, or modification

4 "ICOMOS Charters " (International Council on Monuments and Sites Web www icomos org)

5 Michael Ross, *Planning and the Heritage Policy and Procedures* (London· Spon Press, 1996, Questia, Web) p 139

6 Op cit , The Venice Charter, art 1

7 ibid, art 5

which would alter the relations of mass and colour must be allowed,"[8] and, "items of sculpture, painting, or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation."[9] These articles indicate an unwillingness toward adaptation or evolution in monuments, and a desire to preserve the material state of the monument as it exists presently. The most compelling piece of evidence indicating this fixation with the material quality of the monument can be found in article 9, which states, "[restoration] aims to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents."[10] The *Venice Charter* recognizes monuments as evidence from the past, disallows alteration of any appreciable manner, and emphasizes the importance of original material. It is clear that the Charter has a focused priority of maintaining the physical, material aspect of monuments in what has come to be known as static conservation.

Leon Krier, an architectural theorist and urban planner is a largely non-practicing architect who vehemently rejects the ideals of modernism. His neo-traditional ideals have been recognized by Prince Charles, the Prince of Wales with whom he has worked closely on the development of new urban plans which emphasize traditional values and typologies in England. The Prince's *Foundation for the Built Environment* instigated the creation of Poundbury, a model village of which Krier was the master-planner.[11] Despite Krier's conservative tendencies, he has several refreshing opinions on the restoration and preservation of historic monuments. In his book *Architecture: Choice or Fate*, Krier states, "the Charter of Venice stakes everything on the authenticity of the original materials as irreplaceable relics resulting in a de facto fetishisation of the ruin."[12] This statement comes as a result of his perception of value in monuments. According to Krier, value stems from the ideas present in the

8 Op cit, The Venice Charter, art 6
9 ibid, art 8
10 ibid, art 9
11 Broadbent, Geoffrey *Emerging Concepts in Urban Space Design* (London E & FN Spoon, 1996 *Questia* Web) p 338
12 Krier, Leon *Architecture Choice or Fate* (Windsor, Berks, England Andreas Papadakis 1998 Print) p 75

monument, rather than the material form of the monument itself. He states that "a reconstruction of an historic monument has more value than the original monument itself."[13] Krier is aware that value in heritage is not the sole province of material authenticity and attributes the source of this value to the idea or concept which drives the architecture of the monument. However, his concept of value is limited; while it affords him the clarity to recognize the fixation on materiality present in the *Venice Charter* as detrimental to the process of heritage conservation, it fails to see the value inherent in the monument itself. Inherent value, implied in the *Venice Charter*, is clarified by the *Nara Document on Authenticity*, adopted by ICOMOS in 1994.[14] The *Nara Document* expands the definition of value from the tangible and material. The document describes such values as such as culture, spirit and tradition as relevant and worthy of conservation - qualities which are intangible but nevertheless inherent.

The assumption that inherent heritage value rests on a monument's material evidence has been present in heritage conservation doctrine since the late 19th century.[15] Material evidence is relatively simple to catalogue and to preserve, but the preservation of the shell is not the preservation of the *genius loci.*[16] Gustavo Giavannoni, an Italian urbanist, re-evaluated material-based conservation. He suggests, "adaptations in the historic fabric be allowed to fulfill the evolving needs of modern society but never compromise the overall authenticity of the urban monument."[17] While still heavily emphasizing the material authenticity, Giavannoni suggests a change in the hierarchy of preservation principles. This opinion on conservation suggests the value of the building's continued evolution may be equal to the historic value of the material qualities and original condition.

The *Nara Document on Authenticity*, was written to introduce non-monumental forms of heritage into the fold of conservation. Authentic cultural heritage still

13 Op cit Krier p 73
14 Op cit Nara Document art 7
15 Araoz Gustavo F "World Heritage Historic Urban Landscapes Defin ing and Protecting Authenticity (*APT Bulletin* 39 2 (2008) JSTOR Web) p 35
16 *Genius Loci* or Spirit of the Place was most notably applied to architectural thinking by Christian Norberg Shultz in his book Genius Loci written in 1979
17 Op cit , Araoz, p 35

includes traditional forms – design, material, and substance – but also encompasses more immaterial qualities. These include use, function, tradition, techniques, location, setting, spirit and feeling.[18] This is a significant addition to the original understanding of value. A new host of phenomena - beyond the single building - may be recognized as heritage for an array of reasons which extend beyond the literal historic. This is the first step away from the static conservation promoted by the *Venice Charter*. The *Nara Document* paved the way for the *Declaration of San Antonio*, which included *Cultural Landscapes* such as farms and forests within the realm of heritage protection. The *Nara Document* also influenced the writing of the *Vienna Memorandum*, which concerned the preservation of *Historic Urban Landscapes* as a whole.

The move toward a dynamic conservation gained momentum in the Americas with the *Declaration of San Antonio*, written in 1996. The shift away from the material focused doctrine of the past comes as a direct result of the wider definition of heritage value ratified in the *Nara Document* two years earlier. Nora J. Mitchel, in her article *Considering the Authenticity of Cultural Landscapes*, writes, "this wider definition of heritage necessitates certain distancing from bricks and mortar into the less well-defined distinctive character."[19] The greater scope of authenticity defined by the *Nara Document* forced the authors of the *Declaration of San Antonio* to re-evaluate heritage priorities, especially when confronted with the amorphous phenomena present in cultural landscapes.

The expanded definition of authenticity ratified by the *Nara Document* allowed for the inclusion of cultural landscapes as viable heritage sites. Cultural landscapes, which include and are defined by their natural elements (trees, forests, agriculture) cannot be conserved in the conventional manner. Mitchel states, "Elements that

18 Op cit , Nara Document, art 13

19 Mitchel, Nora J "Considering the Authenticity of Cultural Landscapes ' (*APT Bulletin* 2 3 39 (2008) 25-31 JSTOR Web) p 26

characterize many landscapes, such as vegetation and ecosystems, as well as certain types of built features, are ephemeral and subject to change over time."[20] It is impossible to consider a landscape under the same conditions as a monument. A natural landscape is by definition, temporal, and it is immediately evident that the principles for conserving a monument are ineffective when applied to something which is presently and, literally, alive. The *Declaration of San Antonio* responds to this dilemma, stating, "We recognize that in certain types of heritage sites, such as cultural landscapes, the conservation of overall character and traditions, such as patterns, forms, and spiritual value may be more important than the conservation of the physical features of the site, and as such, may take precedence."[21] A reordering of principles has taken effect. Mitchel indicates that "until the Nara conference, most aspects of authenticity were focused primarily on materials and physical form."[22] The *Declaration of San Antonio* demonstrates how this re-prioritization has occurred, specifically with regard to cultural landscapes, stating "evolution is normal and forms an intrinsic part of our heritage."[23] Heritage doctrine has reversed its previous opinion on the adaptation of sites with regard to cultural landscapes. Where the individual monument is still prioritized materialistically according to the *Venice Charter*, the cultural landscape is encouraged to adapt, as physical changes are necessary to the continuing life of the landscape. These adaptations are even welcomed, as a part of ongoing heritage conservation.[24]

The acceptance of the paradigmatic shift from a material-based static conservation to a more dynamic idea gained further ground with respect to *Historic Urban Landscapes* (HULs) with the *Vienna Memorandum*. HULs are defined by ICOMOS as any area consisting of structures and open spaces with historic, archaeological, and/or architectural value that differ from cultural landscapes. HULs are often cities or

20 Op cit , Mitchel, p 25
21 Op cit , San Antonio Declaration, p 3
22 Op cit , Mitchel, p 26
23 Op cit , San Antonio Declaration, p 5
24 ibid

towns where the arrangement and grouping of buildings, their use and adaptation, are historically significant. Article 13 of the 2005 *Vienna Memorandum on World Heritage and Contemporary Architecture – Managing the Historic Urban Landscape* states:

> Continuous changes in functional use, social structure, political context and economic development that manifest themselves in the form of structural interventions in the inherited historic urban landscape may be acknowledged as part of the city's tradition, and require a vision on the city as a whole with forward-looking action on the part of decision makers, and a dialogue with the other actors and stakeholders involved.[25]

The *Vienna Memorandum* considered the implications of heritage conservation as it relates to HULs and to allow the functional evolution of such places to continue, thus avoiding their decay. Gustavo Araoz in his article, *World Heritage Historic Urban Landscapes: Defining and Protecting Authenticity*, explains how this represents a shift away from the conservation of the material form toward the protection of the dynamic process and patterns of urbanization.[26] Previous conservationist doctrine stipulates that subsequent architectures adjacent to, or within an HUL must be both similar and subservient to the designated buildings. The *Vienna Memorandum,* however suggests changing the landscape to reflect the evolution of the city may be more desirable from a heritage perspective. "Contrary to the traditional view, new structures in historic settings should be designed as enhancements to the visual character and richness of the [HUL], rather than as integrated back ground infill."[27] In this capacity – referring to the entire urban landscape, rather than a specific building – it seems that the doctrine for heritage conservation has changed again. A new emphasis on continuing functionality and self-sustainability has become an important figure against the previous understanding of the materiality of historic monuments as preeminent.

25. "Vienna Memorandum." (*Centre Du Patrimoine Mondial World Heritage Centre*. UNESCO, May 2005. Web) art. 3
26. Op. cit., Araoz, p. 34.
27. Ibid, p. 36.

The changes made to the doctrine regarding HULs allow for increased utility on an urban scale, but do not reconcile the individual monument's crisis of material authenticity. The greater lenience afforded to evolution in cultural landscapes is still denied to the single monument, unable to escape from the material-centric doctrine initiated by the *Venice Charter*. It is clear, however, that the importance of evolution in heritage toward self-sustaining communities has entered the vernacular of heritage. Heritage doctrine could go further to suggest the continuing adaptation of a singular monument is as equally important to its historic qualities.

Heritage doctrine, particularly the *Venice Charter*, now can be seen to fail the individual monument by imposing a material-fixated conservation resulting in static, rather than dynamic preservation. While subsequent documents have adopted a more dynamic outlook, Araoz indicates that ICOMOS's stance on building adaptation has always been viewed as a "necessary evil, enabling better conservation, and [has] never [been] a character defining element or a positive cultural asset."[28] The static conservation employed by the *Venice Charter* with regard to the individual monument is conveniently ignored by subsequent documents. The reason for this, despite the advances made regarding HULs and cultural landscapes, is due to the largely diagnostic understanding of the individualized monument.

The a material based understanding of heritage value originates from the *Venice Charter* and is perpetuated through a predominantly diagnostic treatment of individual heritage monuments. It is necessary now to describe the diagnostic method in more detail in order to better understand the detriment it poses to monuments.

28. Op cit., Araoz, p. 36.

HERITAGE DIAGNOSIS

2

Despite the increasingly nuanced definitions of heritage by ICOMOS, including the *Declaration of San Antonio* and the *Vienna Memorandum*, conservation of individual monuments remain curiously unchanged from its original formulation in the *Venice Charter*. We will characterize this antiquated method of conservation as *diagnostic*. The following chapter will analyze the diagnostic method through a medical lens in order to better establish its deficiencies with regard to heritage conservation.

Diagnostic practice in both medicine and conservation is a rigorous and focused discipline with a manifold set of rules and regulations. The diagnostic method as it relates to heritage preserves the monument in its designated, material state for posterity. Should restoration be required, it is issued with measured, medical certainty. The 2003 document *Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage*, issued by ICOMOS, states, "the peculiarity of heritage structures, with their complex history, requires the organisation of studies and proposals in precise steps that are similar to those used in medicine."[29] Remedial therapy is issued in a controlled method that exclusively aims to repair deficiencies without compromising the apparent heritage value of the monument.

Diagnostic heritage practices evaluate a monument for deficiencies and establish a course of repair to return the building to a functional state. Similar to medicine, "diagnosis matches the catalogue to a list of typical symptoms and, when it has found a satisfactory match, names the disease a patient has."[30] The monument – or patient – may be diagnosed with structural failure, a deficient roof or rain screen, infected with

29 "Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (*International Council on Monuments and Sites* Sites Oct 2003 Web)1 6

30 Pearcy, Lee T "Diagnosis as Narrative in Ancient Literature " (*The American Journal of Philology* 4th ser 113 (1992) JSTOR Web) p 595

mould or parasites, or lacking in basic amenities such as electricity and plumbing. A remedial plan is established to resolve the patient's bodily malfunctions and return it to an acceptable state. ICOMOS indicates, "the best therapy is preventative maintenance,"[31] further indicating the erroneous assumption that sustaining the body of the monument is crucial to preserving its heritage value.

While diagnostic practices are a respected and effective means of preserving the body of a monument, they lack a fundamental understanding of what is required to sustain a heritage building as a whole. Lee T. Pearcy, in his article *Diagnosis as Narrative in Ancient Literature* writes, "a physician can treat a disease or a patient."[32] The focus of diagnosis lies exclusively on the symptoms of the disease. It fails to consider the patient holistically, preferring, as Walter Pagel has argued in his examination of ancient medicine, to "plan the cure chiefly according to the external cause of the disease and the organ involved."[33] This is a fundamental failing of diagnostic practices as they relate to heritage conservation. Issues such as structural damage or mould infestation are regarded as diseases in their own right, and are to be remedied through remedial work. This narrowed vision of disease prevents the diagnostic method from assessing the building as a whole, and diagnosis is not equipped to deal with the greater issues facing monuments.

The alternative to diagnosis within the medical context is the practice of prognosis. Dr. Dyce Duckworth, in his article *Address in Medicine, the Prognosis of Disease* writes, "in prognosis we have almost always two ends to be considered – the immediate effects of the present illness and its remote consequence upon life."[34] The aspect of foretelling allows prognosis to effectively navigate between specific symptoms and the overarching issues that concern the patient holistically. Like the ancient physician, it is the conservationist's job to "say what has happened, recognize what is happening,

31 Principles for the Analysis Conser vation and Structural Restoration of Architectural Heritage art 3 2

32 Op cit Pearcy, p 595

33 Pagel, Walter "Prognosis and Diagnosis (*Journal of the Walburg Institute* 2 4 (1936) 382 98 JS TOR Web) p 395

34 Duckworth Dyce "Address in Medi cine, The Prognosis Of Disease (*The British Medical Journal* 2 (1857) 251 58 JSTOR Web) p 252

foretell what will happen."[35] The trappings of diagnosis, it would seem, are reconciled through the art of prognosis. Can a prognostic model be applied to a new practise of heritage conservation?

Pearcy explains the difference between diagnosis and prognosis: "For the modern physician, symptoms are the signs of disease. For the ancient physician, diseases themselves may be signs of the more general conditions which therapy seeks to treat."[36] The modern physician, practicing diagnosis, has a narrowed focus on symptoms which precludes his or her ability to consider the patient holistically. It is the ancient physician, practicing prognosis, who considers the patient in his or her uniqueness. G.M.A Grube, in the article *Greek Medicine and the Greek Genius* substantiates this argument, writing, "the physician must take all the circumstances into account: the health, the age, the habits of the individual."[37] Only by considering all the distinct characteristics of the patient can a holistic prognosis by made. Further, Pagel indicates, "It is because of his desire for a correct prognosis that the Hippocratic physician studies the individual and the particular mode of reaction, the temper and complexion, according to which the disease takes its course."[38] Pearcy, Grube and Pagel agree that prognostic medicine establishes a comprehensive understanding of the patient's condition that allows the physician to foretell the future. It is this aspect of prognosis, we might consider now, that makes it uniquely equipped to deal with the conservation heritage buildings.

Diagnostic heritage practices, I argue, are concerned primarily with the cosmetic maintenance of the heritage structure. The diseases addressed through diagnosis, however, are in fact symptoms of a more serious issue, functional obsolescence. By considering not merely the body, but also those inherent and often intangible qualities that made it eligible for designation in the first place, prognostic conservation can

35 Op cit , Pearcy, 601
36 ibid p 615
37 Grube, G M A "Greek Medicine and the Greek Genius ' (*Phoenix* 8 4 (1954) 123 35 JSTOR Web) p 130
38 Op cit Pagel, p 387

renew and maintain the monument more comprehensively. However, this process is much more complex than diagnostic practices; it requires something more than just an analysis of symptoms and an application of a plan for remedial therapy.

Typically, the goal of diagnostic conservation is to maintain a building in a kind of stasis – unchanging and un-adaptable. In fact, the *Venice Charter* mandates this condition. However, the very act that seems to sustain the monument may in fact be causing its depredation. We understand now that the prevention of adaptation through diagnostic conservation is stripping the monument of its most essential quality. Adaptation is the vital element that sustains a monument as architecture - stripped of this ability, a monument becomes nothing more than sculpture.

PREEMINENCE OF FUNCTION

3

Let us take this further; without the ability to adapt, a monument can no longer be considered architecture. In order to substantiate this claim, it is necessary to analyze architecture 'existentially'. When is a building architecture, and when is it not architecture? It may simplify the argument to define 'not architecture' as sculpture. There are two fundamental characteristics that distinguish architecture from sculpture - program and obsolescence. Architecture is intrinsically connected and wound up in day to day human interaction. The changeability and temporal nature of human need directly affects architecture. If a building is no longer able to interact within this network, it becomes obsolete. This is the fundamental difference between architecture and sculpture. A building cannot be architecture unless it serves a purpose.

The importance of functionality to the life of a building can be explained through an analysis of the Vitruvian triad: *venustas*, *firmitas*, and *utilitas*.[39] In the case of monuments, *venustas* often reflects the intangible qualities through which the building is made eligible for designation. The more delightful a building is, the more likely it will be adapted to contemporary uses. *Venustas* captivates, allowing an obsolete building the chance to extend its life beyond the expiry of its original function. *Firmitas* plays a similar role. A durable building will outlast its temporal function, it can weather the adaptation required to meet the new demands of the social order. Buildings with an excess of *firmitas* can survive multiple adaptations, they evolve as the social order evolves.

39 Vitruvius, Pollio, trans M H Morgan *Vitruvius the Ten Books on Architecture* (New York Dover Publications, 1960 Print) p 17

Considering this argument, the third component of the Vitruvian triad, *utilitas*, has been the subject of some debate regarding an appropriate translation. Morris Hickey Morgan in the 1960 publication of *Vitruvius: the Ten Books on Architecture* translates *utilitas* as *convenience*, "when the arrangement of the apartments is faultless and presents no hindrance to use."[40] Frank Granger defined it as *utility* in the 1955 translation of the same work, "when the sites are arranged without mistake and impediment to their use, and a fit and convenient disposition for the aspect of each kind."[41] Vitruvius indicates that *utilitas*, be it convenience or utility, involves design that must be both convenient and faultless while serving a particular use. If it is to be accepted that architecture exists within a social order and that order represents the temporal needs of society, how can a building that has *utilitas* with one function adapt when that function is made obsolete by the changing social order? Granger's definition is a more comprehensive word for the scope Vitruvius defines; utility is synonymous with function and usefulness, and encompasses a greater understanding than convenience. This usefulness is not necessarily limited to the convenience of one particular function but rather a usefulness of multiple functions, or the potential for multiple functions. Utility speaks about the ability of a building to endure adaptations that cater to the transient needs of its social order. In this way Vitruvius' *utilitas* can be defined as function.

Equating Vitruvius' *utilitas* with function is not a new idea. It was adopted by the functionalists in the nascence of modernism, where the shibboleth, "form follows function" was understood also as "Firmness plus Commodity equals Delight."[42] Commodity, or *utilitas*, as it is used here is comparable to the modernist idea of function or program. Louis Sullivan, the father of Modernism, writes in his *Autobiography of an Idea*, "that all practical demands of utility should be paramount

40 Op cit ,Vitruvius, Morgan, p 17
41 Vitruvius Pollio *On Architecture* Trans Frank Granger (London W Heinemann, 1931 Print) p 35
42 Scott, Fred *On Altering Architecture* (London Routledge, 2008 Print) p 2

as basis of planning and design."[43] Sullivan's theory of architecture precludes obsolescence in buildings. The pre-eminence of function in modernist doctrine makes further evident the importance of program in architecture. Cedric Price, a functionalist himself, believed so strongly in the demolition of obsolete buildings that, "at the time of his untimely death, he had been trying to prevent Camden Council proposing one of his own buildings for listing to save it from demolition."[44] This case evidences Price's conviction toward the functionalist ideals; he would rather see his own work destroyed than have it live on in obsolescence. The failure of Sullivan's Modernism, however, is that it neglects the transitory nature of functionality. According to Sullivan, function and form are inseparable, but the very presence of heritage buildings indicates that this separation is not only possible, but certain. Scott raises this dilemma succinctly: "[obsolescence] is peculiarly distinct and separate from the intrinsic qualities whether spatial or physical, of the building that is in question, the qualities for which a building is liable to be considered for preservation."[45] Function provides life, but not value to architecture. A building may lose its original use, but that does not prevent it from acquiring a new program to reinvigorate it. Krier describes this quandary analogously, "the form of the bottle does not reflect the fluidity of the liquid it contains."[46] Modernism fails to grasp the temporality of function.

Aldo Rossi, an Italian architect and influential theorist wrote his best known work, *The Architecture of the City*, "during the polemical critique of the Modern [Movement's] position on the city."[47] While his book became associated with Post Modernism and Neo-rationalism, it is not so much a critique of Modernism as it is, in Rossi's words, the modern equivalent of the Renaissance treatise.[48] Rossi writes, "an urban artefact determined by one function only cannot be seen as anything other than an

43 Sullivan, Louis H *The Autobiography of an Idea* (New York Dover Publications, 1956 Print) p 257

44 Op cit Scott, p 4

45 ibid

46 Op cit Krier, p 69

47 Rossi, Aldo *The Architecture of the City* Trans Diane Yvonne (*Ghirardo and Joan Ockman* Cambridge, MA MIT, 1982 Print) preface

48 Rossi, preface

explication of that function."[49] Rossi was a proponent of the re-appropriation of old buildings. He considered adaptation of old buildings to new uses a fundamental calling of architecture – to Rossi, a building wasn't truly architecture until it has lost its original use and acquired a new function. Concerning the Palazzo della Ragione in Padua, Rossi states, "this building is still in use, even if everyone is convinced it is a work of art, it still functions quite readily at ground level as a retail market. This proves its vitality."[50] The ability of a building to adapt through varying incarnations is a testament to the progressive nature of architecture. Rossi indicates that continuing functionality confirms a building's vitality.

Leon Krier emphasizes the nature of adaptable functionality, stating, "typological and structural stability and functional adaptability are not antagonistic concepts."[51] He indicates that no building is too robust for adaptation, it can occur not only in modern buildings but also in the most ancient classical monument. Krier opines that functional adaptation is, rather than the antithesis of effective architecture, a beneficial and necessary component to building. Equating functionality with vitality is a logical assumption.

It has been established that architecture necessarily responds to capricious human action and must adapt to the changing needs of the human condition to retain its position as architecture. Without function, a building becomes obsolete; it no longer services the social order and is therefore outside of it. Fred Scott, author of *On Altering Architecture* writes, "all buildings ... have three possible fates, namely to remain unchanged, to be altered, or to be demolished."[52] To Scott, an avid proponent of renovation, demolition is the least desirable fate for a building. While affirming Scott's overall appreciation for the value of alteration, we must now propose that the worst of the probable fates of a building is not, in fact demolition, but is rather to remain unchanged.

49 Op cit , Rossi p 60
50 Ibid, p 59
51 Op cit , Krier, p 69
52 Op cit , Scott, p 1

To be altered is the most natural condition of architecture. To remain contemporary within the changing social order, adaptation is always necessary to a varying degree. Architecture that adapts, survives – a new function means a second life. Jane Jacobs, iconoclast planner and author of *The Death and Life of Great American Cities*, argues that old buildings have the power to make "the constant adjustments, adaptations, and permutations that make up the processes of life."[53] According to Jacobs, it is the changeability, particularly apparent in older architecture, that makes transformed buildings valuable and vital both economically and socially.

Demolition, as dreaded by Scott, represents another option for a building that has become functionally obsolete. If the building cannot or will not be adapted to service the needs of the social order, demolition is necessary to make way for something completely new. While less desirable than adaptation, demolition is sometimes required, and allows for unfettered new design to take root. New buildings become part of the cycle of re-use, eventually becoming old buildings. This cycle, writes Jacobs, is a necessary succession to the economic and social achievement of a city.[54]

The most detrimental option for an obsolete building is to resist change, and retain the building in a corpse-like state, unused and untouched. In the normal course of events, a functionally obsolete building would never survive long in an unused state. However, with the influence of heritage conservation, obsolete buildings area a relevant concern. Gustavo Araoz writes, "[when] a building or site transcend into the higher life form of a 'monument,' the result in many cases is a permanent state of stasis."[55] The unchanging monument lets rigor mortis set in; all that remains is a shell of something that once was architecture. The obsolete monument becomes, at best, a beautiful sculpture.

53 Jacobs, Jane *The Death and Life of Great American Cities* (New York Vintage, 1992 Print) p 199

54 Jacobs, p 189

55 Op cit , Araoz, p 35

Obsolescence is not a desirable state for an building. If a functionally obsolete building is adaptable, it will be inhabited. If the building is no longer useful for any purpose, it will be destroyed. Usually, the functionally obsolete state is a temporary one, abandoned buildings remaining so until the economic resources available are stirred to change it. No building can be "too old to be chosen for use by those who have a choice – or to have its place taken, finally, by something new" writes Jacobs.[56] The cycle of building adaptation or demolition does not leave room for obsolete monuments. Yet even so, it has become a part of our urban environment, encouraged by the mandate of heritage designation.

It has been proposed that architecture exists within a social order. This requires buildings to adapt to the changing needs of contemporary society. It has also been established that a building unable to adapt stands outside the social order and can no longer be considered architecture. It has finally been proposed that heritage designation preserves monuments-that-were-once-architecture in a permanent stasis outside of the social order. This unnatural phenomenon, a result of conservation, directly and negatively affects the monument, but also the greater urban context.

56. Op. cit., Jacobs, p. 193.

THE MONUMENT AND THE CITY

4

Jean Jacques Rousseau's concept of the *general will*[57] – an entity which is both separate from, but comprised of entirely its members – can be likened to the idea of the city. Arakawa and Gins, architects and authors of *Making Dying Illegal*, wrote a largely biological treatise on the relationship between an individual and his or her architectural body. In *Making Dying Illegal*, they adopt Rousseau's concept of the general will in their new declaration of human rights, indicating that members in their society as a collective form a greater organism or *general will*.[58] However, Arakawa and Gins use a new definition of the individual member, contrasted with the 1789 French Declaration of Human Rights, on which they base their own declaration.[59] A person, as defined by Arakawa and Gins, encompasses both the individual and the architectural.[60] It is not such a great a leap to discard the human and then consider the implications of a society whose members are entirely architectural. How better to define a city than as the general will of its architectures?

It is useful to consider the city as a general will of its architectures insofar as it is true that the death of a single organism is detrimental to the greater organism.[61] A failing component of a larger whole invariably affects not only itself but its context. It is logical therefore to maintain that obsolete monuments which persist negatively affect the cities they inhabit. Aldo Rossi, notes Fred Scott, recognizes this correlation. "Rossi describes the building kept from change, the preserved building, removed from the processes of life and the city as the pathological primary element attempting to freeze time and as a consequence life also in its context."[62]

57 Rousseau Jean Jacques *The Social Contract* (New York Penguin 2006 Print) p 61 "Each one of us puts into the community his person under the supreme direction of the general will

58 Arakawa, Madeline Gins *Making Dying Illegal Architecture against Death Original to the 21st Century* (New York Roof, 2006 Print) p 35

59 Arakawa, p 36

60 ibid, p 27

61 ibid, p 194

62 Op cit , Scott, p 100

Within the western context, the monument is still largely understood as a static, material entity. The city, conversely, is considered somewhat more alive. Leon Krier emphasizes the dynamic nature of the city: "the essential quality of a city is ... [due] to the general and adaptive capacities of the principles on which it is based."[63] Krier accepts the city as an adaptive entity in its own right. He goes on further to describe the city not "as a finished object but of an organic body that moves, shudders, expands slowly or suddenly shrinks."[64] This dynamic view of the city has been further recognized by the *Declaration of San Antonio*, as we have noted, which discusses the heritage of historic urban landscapes – essentially cities – where constant evolution is not only permissible but becomes accepted as a value in its own right. Scott indicates that there has been an "acceptance and codification into theory of vernacular settlements and cultural landscapes as heritage categories that are dependent not on conservation but on the perpetual renewal of their form."[65] The evolution of the city has become a necessary part of preservation, even one to be valued as heritage itself. Araoz states, "historic urban landscapes, in the world heritage context at least, are considered a new breed of heritage that combines traditional notions with dynamic, contemporary concepts reflecting overarching concerns about community development and sustainability."[66] International heritage doctrine has recognized that a vital process of the city is its kinetic, temporal, dynamic nature, and even those places deemed most historic must be allowed to engage in the evolution that comes naturally to a city.

We can now assert that monuments held in stasis are incompatible with the dynamism of cities. The incongruity of part to whole creates tension between the city and its architectures. Cities cannot change if the architectures are held unchanging; this discordant mixture inevitably leads to systematic failure. Jacobs recognized the plight

63 Op cit, Krier, p 61
64 Ibid, p 67
65 Op cit, Scott, p 34
66 Op cit, Araoz, p 36

of the city where monuments become obsolete and made intentionally unusable. "Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them."[67] Her argument is simple; the ability of old buildings to adapt makes them vital to the growth of a city. Small businesses cannot afford the cost of constructing a new building, and entrepreneurship can only be nurtured within the adaptable home of an existing building. Jacobs continues, "old ideas can sometimes use new buildings. New ideas must use old buildings."[68] Based on Jacobs' perspective, it can be assumed that without the reanimation of functionally obsolete buildings, opportunities for human creativity within a city are repressed. Stewart Brand, in *How Buildings Learn*, indicates further the usefulness of old buildings, stating, "old buildings save you money ... rehabilitation of an old building may be expensive, but it's still significantly less than comparable new construction."[69] He further indicates that rehabilitation of older buildings avoids "the expense, disruption, and environmental burden of demolition."[70] The value gained by rehabilitating an old building for a new use is substantial from an economic perspective, but also from an environmental and cultural standpoint. Heritage Monuments held in stasis are forbidden from participating in this natural role within the city – a role that is vital to the continuing vibrancy and success of the greater organism.

It is interesting to return to Krier's argument of a city as an evolving organism against his comments about the immortality of monuments. He writes, "no public space or collective culture is possible without the potential immortality of our buildings and cities."[71] How can one reconcile the idea of a permanence in monuments against the notion of organic cities? Rossi offers us an explanation. "By permanence I mean not only that one can still experience the form of the past in this monument but that the physical form of the past has assumed different functions and has continued to

67 Jacobs, 187
68 Ibid, 188
69 Brand, Stewart How *Buildings Learn What Happens after They're Built* (New York, NY Viking, 1994 Print) 93
70 Ibid
71 Krier, 181

function, conditioning the urban area in which it stands and continuing to constitute an important urban focus."[72] The definition of permanence, as used by Rossi and Krier, is not synonymous with stasis. Permanence, in this case, means the ability to endure multiple adaptations.

In considering the necessity of transformation in the urban fabric, Scott writes, "one must concede that the beauty of old cities is the result as much of glacial changes that sequential occupations have wrought as of their planning and their architecture."[73] The beauty in the reanimation of monuments carry influence in the beauty of the city, their correlation is as true in the positive as it is in the negative. It can be inferred from this reciprocal relationship that the evolution of the city affects the evolution of the monument, and vice versa. "Buildings change as the city changes," Scott asserts.[74] Therefore cities change as the building changes. "If a building is altered once, it becomes generally a candidate for other future changes. It becomes an element within the continuity of the city."[75]

Permanence, as established by Rossi and Krier, understood through the lens of the reciprocal relationship of monuments to cities, creates a new understanding of civic architecture. It is injurious to the city to maintain the individual monument in obsolescence. Krier argues further that, "without such material and moral immortality architecture could not aspire to be a civic art, a tool of prime importance for civilization."[76] Without this permanence – immortality – of monuments, understood to lie in their adaptation rather than in stasis, architecture and city will fail. The relationship of member to general will represents a symbiotic bond clearly evident between monument and city. Scott writes, "the city is similar [to] the individual building, that in changing, the essential nature must survive."[77]

72 Op cit, Rossi, p 59
73 Op cit, Scott, p 34
74 ibid, p 17
75 ibid, p 144
76 Op cit, Krier, p 181
77 Op cit, Scott, p 185

The city flourishes when architecture flourishes. It is the essential relationship of the part to the whole, the microcosm to macrocosm, that ensures the vitality of the city. The diagnostic method can be understood now to affect not only the individual monuments with functional obsolescence, but by extension the city around it. The negative effects of diagnostic practice have become far reaching. It is vital that an alternative to diagnostic conservation be applied, not only for the sake of the monument, but further for the benefit of the entire city, and by extension, the social order.

WHAT'S THE PROGNOSIS?

5

It is imperative that we establish a new theory that deals specifically with the treatment of functionally obsolete buildings within the heritage context. Consider, therefore the implications of a *prognostic conservation*. It involves a forward-thinking approach to the alteration of monuments, as contrasted against the present practice of diagnosis, which deals with monuments only cosmetically. Prognostic conservation necessitates a comprehensive understanding of the past, present, and future of a monument. What is the nature of prognostic conservation and can we identify examples of its effective use?

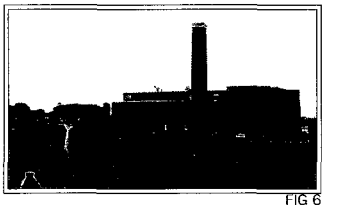


FIG 6

TATE MODERN by HERZOG & DE MEURON
The former Bankside Power Station was redesigned into the Tate Modern Art Museum by architects Herzog and De Meuron in 2000 This is a successful example of adaptation with the priority of continuous function rather than preservation of original condition and materials is clearly evident

We have established the vital role of function in the life of a monument. Barbara Kirshenblatt-Gimblett, in her article *Theorizing Heritage* writes, "historic the term is an indicator of obsolescence – no calls can be placed from an historic telephone box."[78] Monuments, as they are considered within the heritage context, have a certain level of inherent obsolescence, and when designated enter into forced obsolescence – stasis. These monuments, heretofore obsolete, are affected by the mandate of conservation that prevents the natural evolution of the monument through diagnostic conservation. Ivan Illich, in his work *Limits to Medicine* notes, "the fact that modern medicine has become very effective in the treatment of symptoms does not mean that it has become more beneficial for the health of the patients."[79] According to Illich, the increase in diagnosis has had little overall positive effect, and often does more harm than good. Considered within the heritage perspective, it is easy to draw a parallel. Illich further indicates, "diagnostic procedures have no positive impact on life expectancy."[80] If diagnosis in medicine has no positive effect,

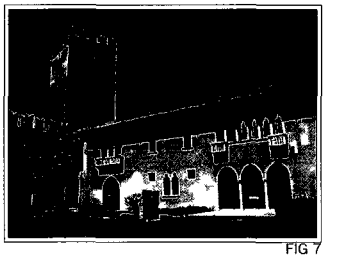


FIG 7

CASTELVECCHIO by CARLO SCARPA
The medieval castelvecchio was renovated into the Castelvecchio Museum by architect Carlo Scarpa between 1959 and 1973 This famous example of adaptation illustrates Scarpa s attention to detail and careful research into the building s history Several successful design decisions were based on archeological evidence of previous building incarnations

78 Kirshenblatt Gimblett, Barbara "Theorizing Heritage (*Ethnomusicology* 39 3 367 80 JStor) 371

79 Illich, Ivan *Limits to Medicine Medical Nemesis the Expropriation of Health* (Toronto McClelland and Stewart 1976 Print) 80

80 ibid p 92

according to Illich, the diagnostic method in conservation can be seen to cause a much greater detriment. The diagnostic heritage practices employed by conservationists in the western context are killing the very monuments they seek to protect.

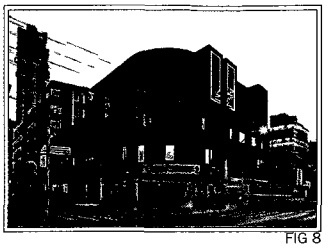


FIG 8

WATERHOUSE AT SOUTH BUND by NHDRO
Neri & Hu Design and Research Office converted three 1930 s industrial buildings in Shanghai to a 19 room boutique hotel We wanted to demonstrate a new way of preserving things you don t have to clean it all up says Neri to the Architectural Record The architects let layers of time impart a richness of experience
(Architectural Record 09/2010 p 86)

Prognostic conservation offers an alternative to the stagnation in monuments caused by current conservation measures. The reanimation of obsolete architecture occurs through the insertion of a new program. As we have argued, new function equals new life. Prognostic conservation therefore deals primarily with in the adaptation of obsolete monuments to serve contemporary uses. This is the first step toward reanimation. Scott acknowledges this idea, stating, "...buildings are taken over in the recurrent victory of the living over the dead, new ways of life replacing the old."[81]

FIG 9

BOX SERVICES LLC by DEBORAH BERKE & PARTNERS ARCHITECTS LLP
This 19th century industrial building located in New York City s meatpacking district was reno vated in 2004 to house a fashion photography studio The architects painted the original facade black and revealed the original timber structure on the interior

Prognostic conservation differs from present heritage practices in its priority of function; without a viable program it can not be reanimated. Prognostic conservation is similar to heritage conservation in its respect for a thorough knowledge of history. In order to apply a forward looking policy to guide the design strategies which accommodate the reuse of the obsolete monument, it is necessary to look to the past. Relating to the future condition of monuments, Stewart Brand writes, "the wisdom acquired looking backward must be translated into wisdom looking forward."[82] In this way, an understanding of the past condition(s) of a monument acts as inspiration for the consideration of possible futures. Prognostic conservation respects the past as congruous with the future. Brand states, "the building already has a story; all the architect has to do is add the next interesting chapter."[83] The prognostic architect considers the body of work before him or her and elaborates based on the knowledge of the past. Brand's analogy of the story is apt – the architect must work with the narrative of the building and prognostic architecture makes sense within the structure of the entire story. Prognostic architecture associates the past conditions of

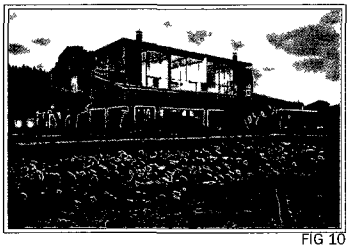


FIG 10

WALDEN STUDIOS by JENSEN ARCHITECTS
A 1920 s concrete barn in Geyserville Californial was converted into a mixed use gallery which includes office space and live work units The original roof was removed and large openings were cut into the base of the concrete barn to let in natural light

81 Op cit Scott p 153
82 Op cit Brand p 109
83 ibid p 105

a monument with its future design.

Does prognostic architecture generate new forms of intangible values? Brand affirms this notion, stating, "when a building designed for one purpose is put to a completely different use, its value depends."[84] An enthusiastic advocate of renovation, Brand indicates that a building may endure any number of alterations and never lose its initial value – in fact it becomes even more valued as a richly layered tapestry of local history. "The building becomes more interesting when it left its original function behind. The continuing changes in function turn into a colourful story which becomes valued in its own right."[85] Jacobs also wrote that the reuse of old buildings added new value, calling such adaptations both admirable and enjoyable.[86] While diagnostic conservation insists renovation detracts from the historic value of the monument, prognostic conservation proves the opposite is true. The prognostic method improves both the historic value of the monument by providing a new means for people to engage with it, and contributes to the value of the architecture and aesthetics.

FIG 11

HOTEL ZENDEN by WIEL ARETS ARCHITECTS
Three townhouses in downtown Maastricht, *Netherlands were combined to create a 9* room hotel with pool lounge and patio The architects demolished the ground floor interior of each building to create a cohesive whole, but maintained the second and third storey interior configurations to serve as the bedrooms

It is important to clarify that prognostic conservation is not inherently antithetical to current practise. Prognostic conservation works to maintain the inherent value of a monument, it nurtures those qualities that made it eligible for heritage designation in the first place. According to Scott,

> Alteration comes about as a consequence of a general wish to keep things as they are... its justification beyond the limits of sentimentality is one of change of use or occupation being required to give new life to a building or quarter, and so to ensure their vital continuance within the fabric of the city.[87]

Prognostic conservation, like Scott's alteration, develops from a desire to retain the qualities of existing places in a useful way. This is not counter to heritage designation, in fact they share this same desire. Both prognostic conservation and diagnostic conservation wish to see the inherent value of monuments preserved for posterity.

FIG 12

SUNSET VINE TOWER by KANNER ARCHITECTS
The former 20-storey office tower in downtown Hollywood was converted into 67 live work units in March of 2010 The architects stripped off the original cladding to reveal the structure with a new, transparent curtain wall

84 Op cit Brand, p 103
85 ibid, p 104
86 Op cit Jacobs, p 194
87 Op cit, Scott, p 145

They are not incongruous in intention.

To summarize, the first priority of prognostic conservation is to restore life to the monument through the insertion of a new program. This is done through a thorough analysis of the story of the place; documentation and research of past conditions is necessary as it informs the possible future conditions of the monument. The resulting adaptations, renovations, or evolutions of the monument share the essential intentions of current heritage doctrine; prognostic conservation seeks to preserve the important qualities of the monument. Prognostic conservation, like a wave against the shore, yields to the strong, important qualities of the place while it shapes the weaker, malleable conditions. Prognostic conservation may, at times, be radical, but this fearlessness is necessary to resuscitate obsolete monuments for the future vitality of the city.

TOWARD PROGNOSTIC CONSERVATION

6

It has been established that prognostic conservation requires three considerations; (1) the priority of relevant function, (2) an understanding of the past which colours future incarnations and (3) the appreciation and celebration of inherent heritage value. Therefore in order to engage in prognostic conservation, the first step is to establish a new and relevant program for the obsolete monument.

The First Baptist Church in downtown Ottawa is not yet functionally obsolete. The congregation numbered approximately 110 in the year 2010, and has been reduced to 70 in the 2011. The parish secretary cites aging as the main cause of the dwindling numbers. As well, the exodus of young families from the downtown core has meant that downtown churches lose younger members to their suburban counterparts. It is reasonable to assume that within a short time frame, the First Baptist Church will no longer have a congregation sufficient to support itself. The First Baptist Church is facing its imminent functional obsolescence.

The First Baptist Church was designated a civic historic building in 1985.[88] This designation includes the interior and exterior of the original edifice, but excludes the addition of the annex. The heritage designation protects the building against alteration or demolition – it will persist in its current form regardless of occupancy by the Baptist congregation. It is clear that a new program must be acquired for the church, for above all else prognostic conservation aims to maintain a building as a useful member of the social order.

The need for a concert hall in downtown Ottawa was identified in the newly minted

88 "Doors Open Ottawa ' City of Ottawa
2010 Web <http //ottawa ca/>

2020 Arts Plan in 2003, though advocates have been pushing for such a facility for over 20 years.[89] In 2004, the city approved a plan to build a 900-seat concert hall in the site adjacent to the First Baptist Church - 150 Elgin. In 2006, the Province of Ontario pledged 6.5 million dollars to the construction of such a facility. However, the Ottawa Chamber Music Society (OCMS) was forced to drop the project in 2007 when it could not secure the private funding necessary for construction. In 2008, the City of Ottawa set aside 5.5 million for the project,[90] but no further proposals have been seriously considered. In October 2010, a City Council meeting of the Arts Heritage Advisory Committee considered the comments of Alan Bowker of the Ottawa Friends of the Concert Hall, who reaffirmed the desire for a centrally located concert hall and requests the city help push the project forward.

The function of a concert hall is congruous with that of a church – both occupations find sacredness in music. This is particularly true of the First Baptist Church with its mighty Casavant Frères Organ. During the month of April, the Church opens its doors to the public once a week for a free concert at noon. There is a clear desire for a concert hall, the site has already established its effectiveness to the OCMS, and the program is congruous with that of the First Baptist Church. The first requirement of prognostic conservation is fulfilled – this project proposes to alter First Baptist Church into a Concert Hall.

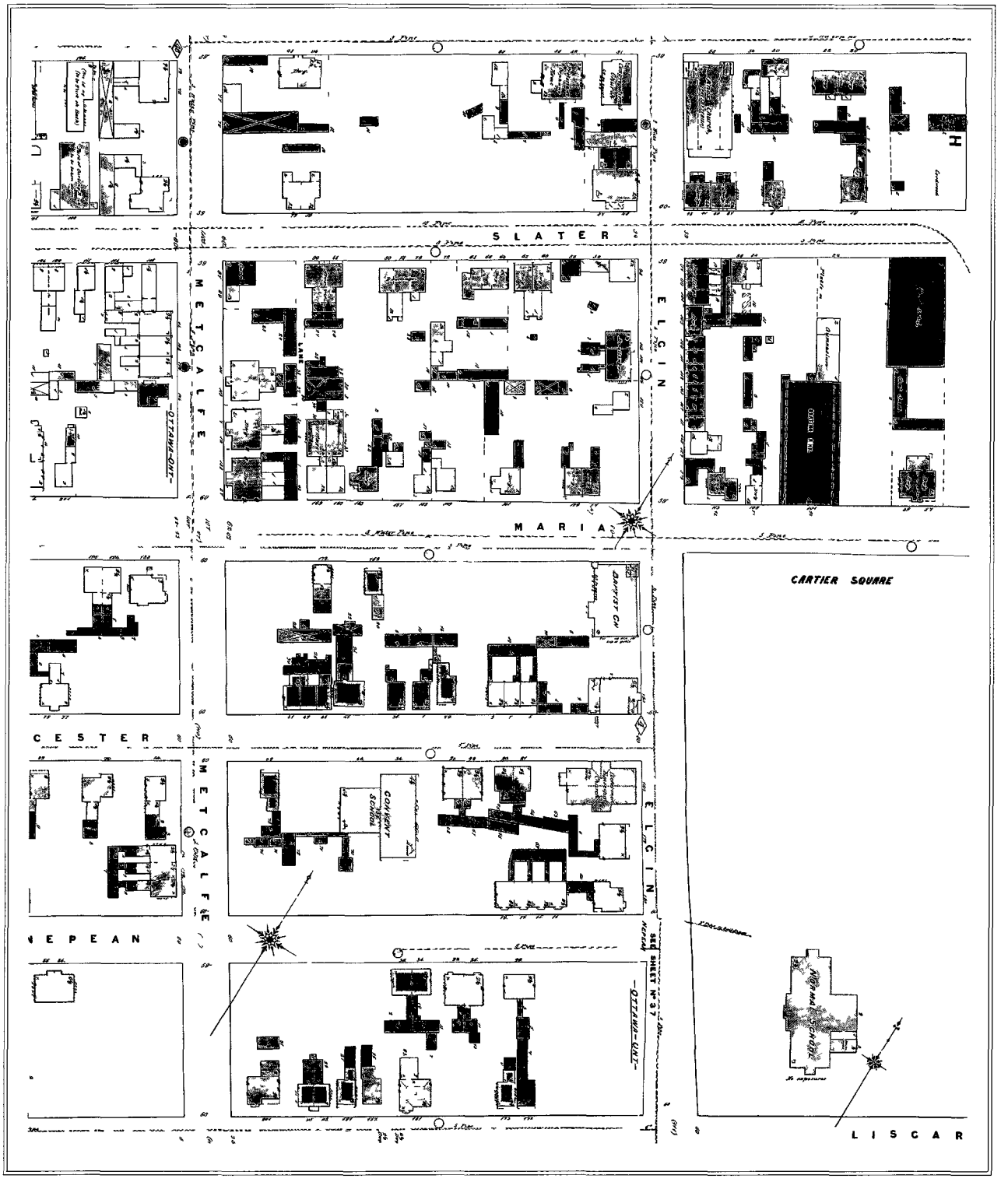
The second consideration of prognostic conservation is the history of the building and site, as a thorough knowledge of the past and present conditions is necessary to the development of a prognosis. The history of the church was introduced in the prologue of this piece – an analysis of the site will follow.

The First Baptist Church is located in the square block bounded by Elgin, Gloucester, Metcalfe and Maria (Now Laurier) Streets. [fig.13] The earliest documentation reveals

89 ARTS HERITAGE AND CULTURE ADVISORY COMMITTEE 2004 ANNUAL REPORT City of Ottawa Web 06 Apr 2011 <www ottawa ca>

90 "2008 Budget City of Ottawa 26 Mar 2008 Web 06 Apr 2011 <www ottawa ca>

figure 13 Insurance Plan of Ottawa June 1878 Chas E Goad C E Accessed January 21 2011 from The National Archives of Canada Public Domain
Modified March 13 2011

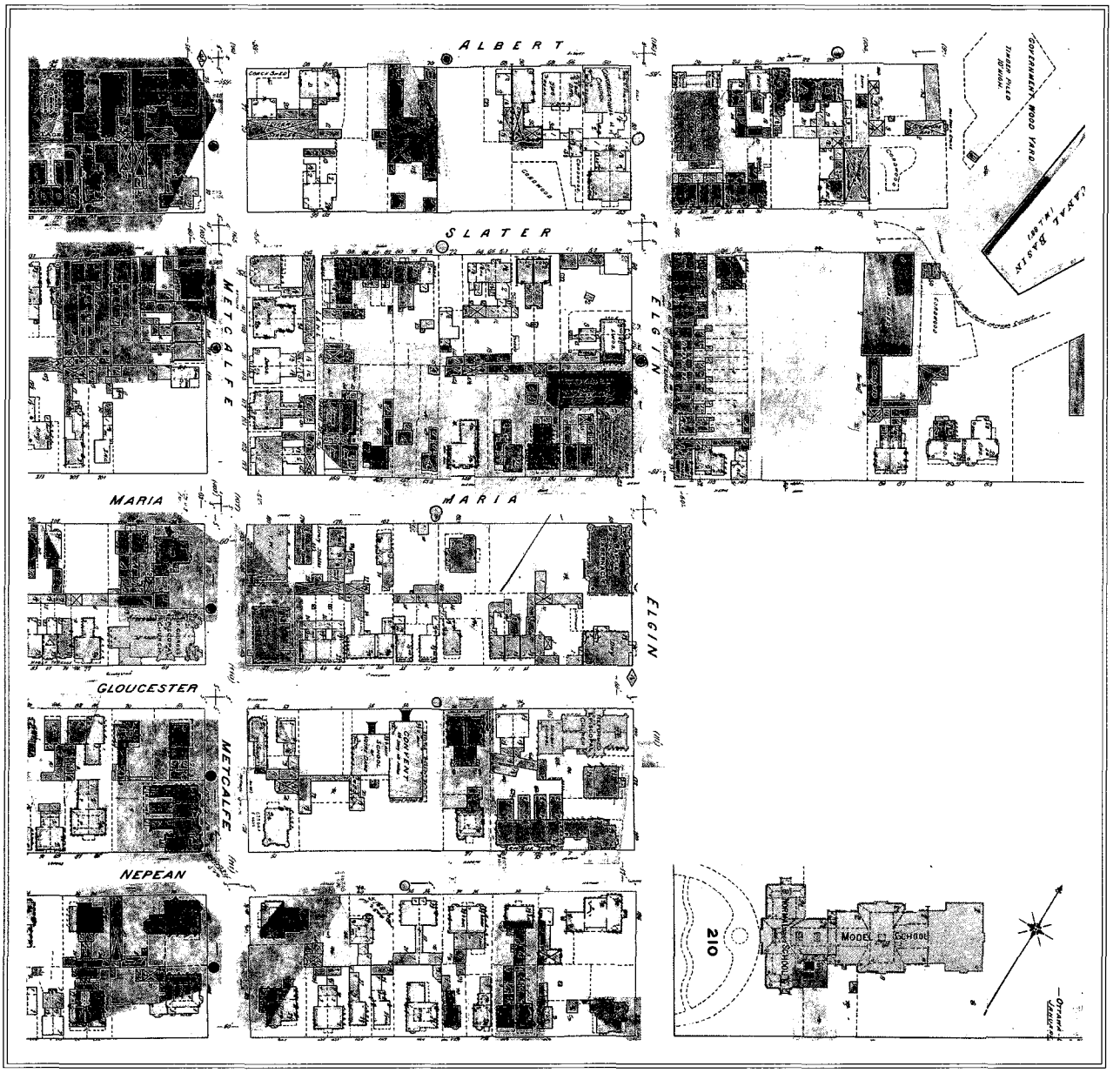


it as a largely residential area surrounded by a number of institutional structures. At the time of construction of the First Baptist Church, around 1878, the remainder of the block contained only small single family dwellings. South of Gloucester, however, there was built a Reformed Episcopal Church and a Convent School. The Normal School, built in 1875 was located across Elgin to the south east of the First Baptist Church. The Normal School was the only building on that block for several decades and is now part of the larger municipal complex housing the present Ottawa City Hall. There were no buildings of significant note to the north and west of First Baptist Church at that time, though a sizeable residence built in second empire style, located at 150 Elgin Street, was built prior to 1878. This edifice was the home of Sir Dr. James Alexander Grant, a prominent medical and political professional in Canada, and personal physician to Sir John A. Macdonald and several Governors General.[91] The home served as a restaurant for many years and was recently bought by Morguard developers.

In 1888, ten years later, the area saw more densification. [fig. 14] Single detached homes were replaced with three or four attached dwelling units and small apartment buildings. A dance academy was built on the corner of Gloucester and Metcalfe, just next to a new YWCA facility to the north, adjacent to Laurier Street. Across Metcalfe, St. George's Episcopal Church was built in 1880, in close proximity to the Reformed Episcopal remaining at the corner of Elgin and Gloucester. It is now an Anglican church that bears the same name, and remains to this day. The Ottawa Amateur Athletics Association opened a building across Maria from the First Baptist Church, which included a bowling alley and a billiards room. A congregational church, and Knox Presbyterian were built further north, and the Normal School was expanded to include a Model School as well.

91 Collins W E "Sir James Alexander Grant 1831 1920 Physician and Politician (*Canadian Bulletin of Medical History* 2 1 (1985) 67 89 Print) 67

figure 14. Insurance Plan of Ottawa, January 1888, Revised January 1901. Chas E Goad, C.E. Accessed January 21, 2011 from the National Archives of Canada. Public Domain.
Modified March 13, 2011.

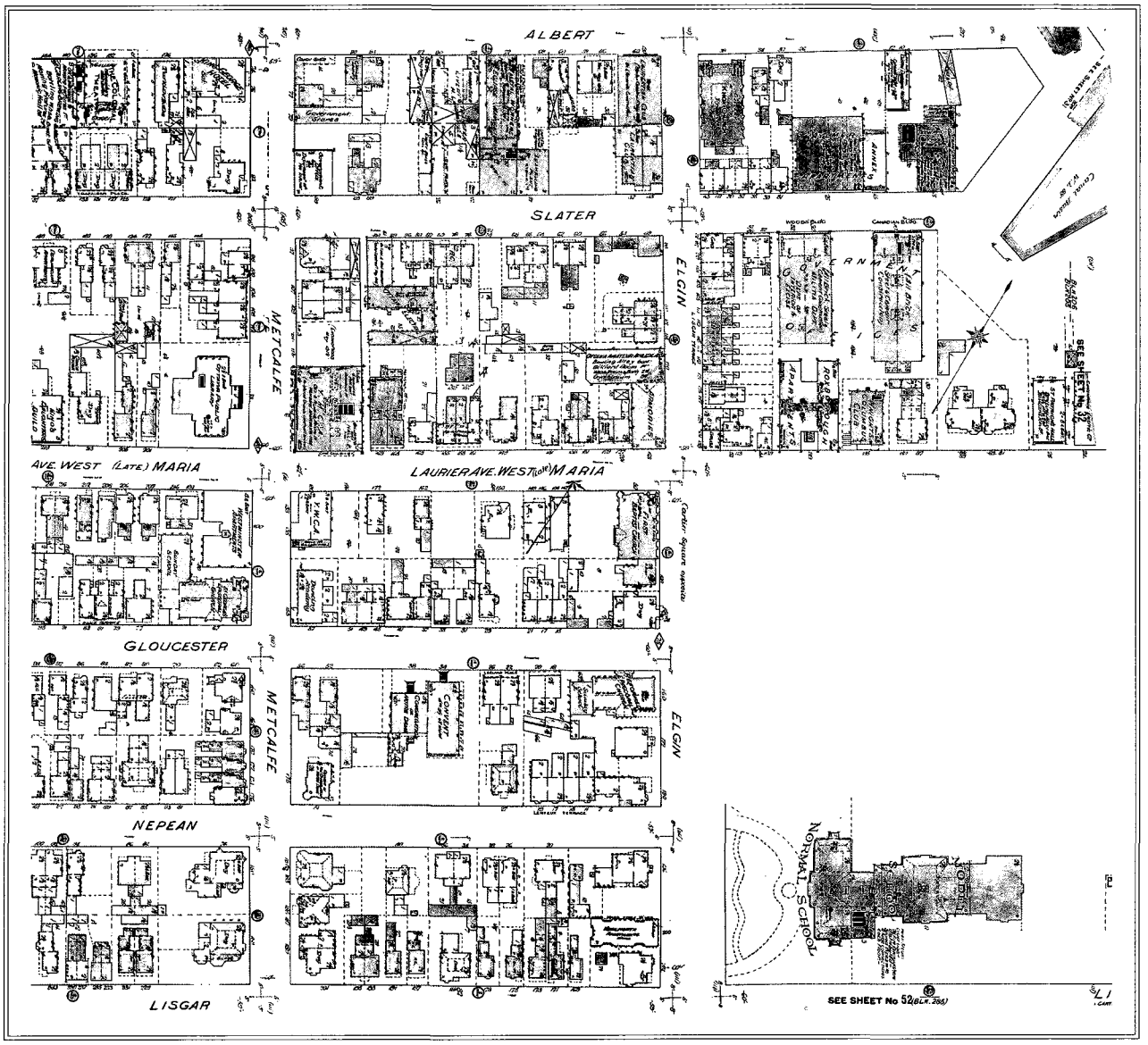


In 1902, after Maria Street was renamed Laurier Avenue, the residential densification seen between 1878 and 1888 continued, including a dwelling located between the First Baptist Church and Sir Dr. James Alexander Grant's home [fig. 15]. The local churches saw expansion, with the addition of Sunday schools on both Episcopal Churches, as well as a congregation space for the Convent of Notre Dame, south of Gloucester. Industrial buildings were opened to the north of Laurier, including metal workers manufacturing, an enamelling plant and an electric company. Of these, the electric company, now a transformer station for Ottawa Hydro still remains today. The expansion of government facilities around the First Baptist Church also occurred in 1902 – several office buildings were erected, as well as an armoury. Multi-storied apartment buildings grew in popularity at this time, as well as facilities for local organizations; the Knights of Columbus, YMCA, Public Library, and Laurentian Club all erected structures between 1888 and 1902 in this area.

In 1940, the London Arms Apartment replaced the Dance Academy on the corner of Metcalfe and Gloucester. A year later, the prominent Lord Elgin Hotel just north of the First Baptist Church was built in by the Ford Hotel Company, and was named after the Right Honourable James Bruce, Earl of Elgin, Governor General from 1847 to 1854.[92] It replaced the Armouries and Amateur Athletics Association Building. In 1945, two small, 2-storey commercial buildings were erected along Laurier Avenue, and remain to this day. They now serve as multi use commercial space, housing a video game store, an Indian restaurant and a physiotherapy clinic. With the outbreak of World War II, many temporary structures were assembled across Elgin from the First Baptist Church in the then empty Cartier Square. These buildings remained for a number of decades before they were removed to facilitate the building of a new Courthouse in 1986.

92. "Lord Elgin Hotel - Ottawa Resort Information - History." Downtown Ottawa Hotel - The Lord Elgin Web. 09 Jan. 2011

figure 15. Insurance Plan of Ottawa, January 1902, Revised January 1912. Chas E Goad, C.E. Accessed January 21, 2011 from the National Archives of Canada. Public Domain.
Modified March 13, 2011.



In 1950, Jacques Greber was commissioned to assemble a plan for the National Capital, which included the amalgamation of several blocks east of Elgin, adjacent to the First Baptist Church to expand Cartier Square. Several iterations were proposed for this park space, including a traffic circle at the Laurier and Elgin Intersection. Eventually, the strip of apartment buildings originally located on Elgin Street, North-East from the First Baptist Church was demolished and Cartier Square was moved north of Laurier, and has now become Confederation Park.

In 1962, the present Allstream building, just west of the first Baptist church, was constructed as a five-storey office tower with retail on the first floor. It is currently home to the Canadian Homebuilders Association, AT&T as well as physicians and computer consultants. The Gillin Building across the street was also completed in the early sixties, built as a twelve storey postmodern office building for Gillin Engineering and Construction. It retains that function to this day.

Place Bell, a tower located on the south side of Gloucester was built in 1971, replacing the Convent of Notre Dame, the Reformed Episcopal Church and a number of small residential dwellings. The original plans for Place Bell included expanding the complex north, and called for the demolition of the First Baptist Church and its neighbours. However, First Baptist was spared, and instead Place Bell was built as one of the tallest buildings in Ottawa, at twenty-seven storeys.[93] In 1972, Place Laurier replaced the YWCA on the corner of Laurier and Metcalfe, a comparatively large building with thirteen storeys. Both Place Bell and Place Laurier function as office buildings and are still in use today.

In 1986, the courthouse almost directly across from the First Baptist Church was built by Murray and Murray, replacing the temporary WWII era buildings which persisted long past their due. Not long after, in 1990, the present City Hall began construction,

93 "HR REIT Real Estate Investment Trusts on Toronto Stock Exchange Place Bell, Ottawa, Ontario Web 09 Jan 2011

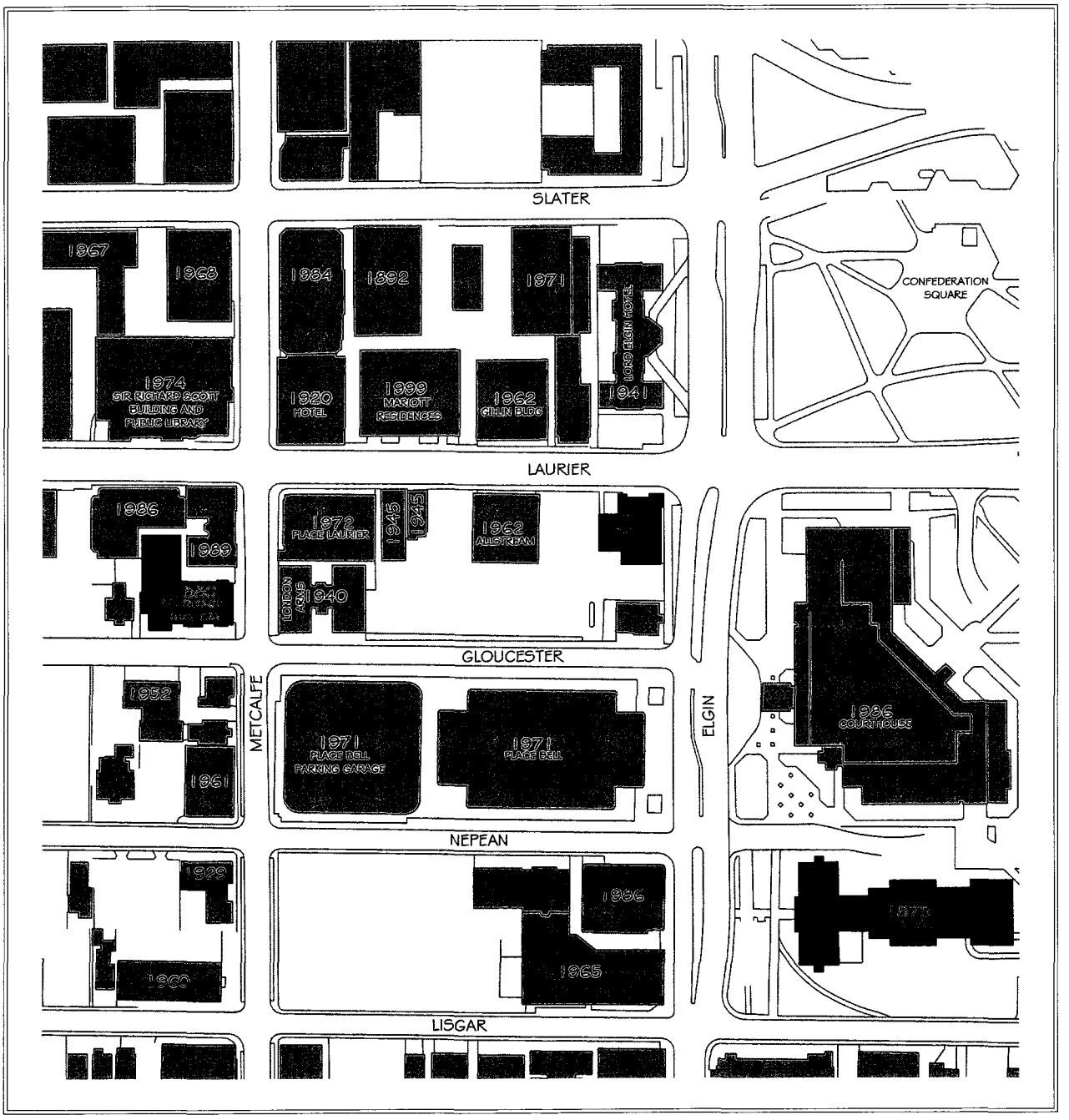
and incorporated the Normal School into its design as a heritage component. Since the completion of City Hall, little else has changed in the area, though present plans from Morguard Developers indicate that the current parking facilities south of the First Baptist Church, incorporating Sir Dr. James Alexander Grant's house into a large mixed use complex, promising to be the first new construction in the area in over 20 years.

The analysis of the architectural evolution about the First Baptist Church reveals that up until the 1950s, the area remained largely religious and community based, locating a number of churches from a variety of denominations, as well as many community facilities, such as libraries, clubs and schools [fig 16]. The site became considerably more commercial in the second half of the 20th century, and has almost completely lost its roots in community programmed buildings - only St. George Anglican, the public library and the First Baptist remain, (though the library is seeking new facilities). The program of a concert hall is congruous with the past influences of the general area, providing a community based institutional program. The addition of an exterior exhibition space, specifically an amphitheatre, can also reference the memory of the site as one which facilitated the gathering of clubs and associations.

The bell-tower of the First Baptist Church was the tallest point in the nearby area for many years, and is second only to Place Laurier on its own block. A prognostic design would seek to maintain the ascendancy of the spire rather than compete with it, to maintain the focal point of Elgin and Laurier as it has been for over 100 years.

The area to the west of the church housing the annex, a parking lot and ending at the Allstream building is a suitable location to begin renovation and expansion to accommodate the concert hall program. The annex, which presently functions as the administrative, mechanical, and service hub for the church represents an important

figure 16 Plan of First Baptist Church and Immediate Surrounds, showing construction dates of adjacent buildings



volume onto which the church is dependant. Historically, prior to the construction of the annex, the western wall formed the central focus of the church, housing the pulpit and baptistery. After the renovations in 1914, the western wall took on additional import, with the addition of the organ. The annex and western wall of the First Baptist Church serves both the church's practical and spiritual requirements. It is the heart of the First Baptist Church. Without the needs of the Baptist program, the annex and western wall will take on a new function and act as the fulcrum for the expanding design. Removing the interior partitions and second floor, and opening up the space to the sanctuary, the volume of the former annex will house the heart of the concert hall – its stage [fig 29].

Seating for the venue will continue westward from the Annex and fill the space between the First Baptist Church and the Allstream office building. This land has only ever served as a parking lot, so it was not necessary to consider previous incarnations of the space when considering the design of the auditorium.

The sanctuary space will see some intervention – the pews will be removed and the space re-configured to the original amphitheatre style. The existing arch which separates the sanctuary from the annex will be expanded and opened, so that the stage might invade the restored raked amphitheatre seating. It will serve as a pre-function, gala space for gatherings before and after concerts, as well as serving minor functions such as beverage sales. Small choral concerts, student performers and pre-function entertainment can employ the stage and raked amphitheatre sanctuary space. Concert-goers can look across the stage toward the audience seating for a unique perspective usually unavailable in theatre configurations. Above, an acoustic canopy constructed of re-purposed organ pipes from the attic of the existing annex can alter the sound quality of the auditorium to best suit the needs of the performers [fig 43].

Patrons will enter through the main doors of the First Baptist Church, convene in the

Sanctuary space, and then enter one of two circulation towers which frame the stage and use glass to bridge the old and the new.

The language of the addition is reminiscent of a wave, yielding to the strong and moulding the weak architecture of the church [fig 32]. The green colour mirrors the copper of the existing steeple, while the pink complements it. These undulating strips climb up the blank facade of the Allstream building, providing vibrancy and interest. They also provide a boardwalk connected Laurier and Gloucester streets – a cut-through presently used by people in the area. Other materials include soft woods, textured to absorb sound and some limited use of Ottawa's rough-hewn limestone to complement the existing exterior walls of the church - some of which can be re-purposed from the removed western-most facade of the annex.

The glass circulation towers act as light wells, pulling exterior sunlight into the sanctuary and circulation aisles. From the exterior, they act as lanterns, sensitively bridging the roof of the church with the roof of the auditorium [fig 33]. These towers provide barrier free access to the sanctuary, basement, and required barrier-free seating in the auditorium. Patrons can access banks of bathrooms in the basement, and seating aisles from the circulation towers [fig 30, 31]. Auxiliary exits are provided to reduce post-performance congestion within the towers.

The site will be designed to include in addition to the concert hall, a boutique restaurant, located to the north of the site [fig 37]. The restaurant will work in conjunction with the concert hall to provide a high-quality dining experience prior to show time. With city hall to the east and several large office towers nearby, this restaurant can expect to see a substantial lunch crowd. It is accessible from the street and can service approximately 40 diners [fig 38]. With 3 other restaurants along Laurier, this program adds to the expanding requirement of food services in

the area. Its small, rectangular design is reminiscent of the modest, simply laid out residence and stables historically located elsewhere on the site, though the swoop of the roof reflects the modern design of the concert hall's auditorium. The single-storey building is sunk into the ground by approximately 1 meter, in deference to the architecture of the concert hall. Its north facade is mainly glass, broken by substantial softwood columns which are reminiscent of the buttressing along the west facade of the first baptist church [fig 39].

A large, exterior amphitheatre has been designed in conjunction with the concert hall [fig 36]. The amphitheatre was inspired by the original layout of the First Baptist Church, and extends the proposed design of the interior in plan. The program of an amphitheatre responds to the needs of the area. Events such as Bluesfest, formerly located at nearby city hall have vacated downtown for larger venues. This proposal can bring back such events to the core, and contribute to other downtown occasions, such as Remembrance Day and Canada day. The location of the amphitheatre on Elgin makes it ideal [fig 44].

In 1902, a house occupied the space between the First Baptist Church and Grant House, abutting the church directly. Since demolished and currently empty, this lot serves as parking. In the proposed scheme, a new administrative building would be built to occupy the original - though reinterpreted - footprint of the 20th century residence, and act as a gateway negotiating entrance to the outdoor amphitheatre [fig 40, 41]. The single storey building would house offices and other administrative spaces for the concert hall, as well as function as a box office and small gallery.

The remainder of the site will continue to function as a parking lot, with additional parking available below ground to service the concert hall. [fig 45] This underground lot will also reconcile the needs of the area, to replace those current parking spaces replaced by the proposed design scheme. The addition of canopies and light wells within the lot are located as an homage to the footprints of former buildings situated in the area.

A SECOND LOOK

I began my studies with research into Heritage Conservation and the methodologies and practices associated with it. I focused primarily on the charters and texts of ICOMOS – the International Council on Monuments and Sites, as they are the authority from which most conservationists derive their practise. There are 4 doctrinal texts that form the basis of my study. The first and foremost of these is the *Venice Charter,* written in 1964 to outline the principles and practices for the conservation of monuments. My criticism of this text lies in its definition of heritage value. The *Venice Charter* identifies monuments are evidence of the past, and emphasizes that authenticity is a function of the original material of the monument. Through this argument, heritage value is being intrinsically linked to material continuity. This precludes the conservation of less tangible heritage.

The *Nara Document of Authenticity*, written in 1994, attempts to address this issue. The *Nara Document* establishes a series of heritage values that lie outside the material, such as tradition, spirit and function. The *Nara Document* allowed the inclusion of new historic places into the fold of heritage designation, and while it addressed the inadequacies of the *Venice Charter*, the *Nara Document* did not rectify them. The final two documents, The *Declaration of San Antonio* and the *Vienna Memorandum* addressed conservation practises as they are applied to specific heritage phenomena – Cultural Landscapes and Historic Urban Landscapes, respectively. These documents are set apart from their predecessors as they suggest to best conserve these aforementioned types of heritage sites, it is important to allow adaptation. This notion stands against the ideas found in the *Venice Charter*, specifically the deference to materiality. The *Declaration of San Antonio* and the *Vienna Memorandum* mark a paradigmatic shift in the way conservationists consider a site.

The advances made in the *Declaration of San Antonio* and the *Vienna Memorandum*, address very specific types of heritage sites and the individual monument is still subject to the jurisdiction of the *Venice Charter*. Monuments are still primarily conserved as physical objects. This practise limits our ability to reuse heritage monuments as architecture. This places monuments in crisis. I characterize this treatment of monuments as Diagnostic.

Diagnosis, as considered through a medical lens, is the practice by which a patient's symptoms are assessed and compared against a catalogue of diseases to find a suitable match. This specialized and specific view fails to treat the patient holistically, preferring to plan treatment chiefly around the external cause. The goal with diagnosis is to return the patient to a previously healthful state. We can see the parallel between medical diagnosis and heritage diagnosis. In fact, ICOMOS compares the techniques used in restoration to that of medical practice in the 2003 document concerning Restoration of Architectural Heritage. The presumption of "returning" to a state of health, implies an obsession with youth as the preeminent condition. It fails to recognize that a future condition might be better than the past. For architecture, the diagnostic method comes at the expense of a relative program, and ultimately leads to functional obsolescence – architectural death.

To understand the importance of relevant program to the vitality of architecture, it is necessary to understand that all architecture exists within a social context that requires it to respond to societal needs. This relationship separates architecture from sculpture – buildings serve a purpose, they are used and needed by society. If a building loses its function, or that function becomes unnecessary, the building must adapt a new purpose or be replaced. Buildings outside the social order, useless buildings, are no longer architecture. Therefore, buildings must adapt to survive. This is all the more crucial for heritage monuments whose historic purpose may have been made obsolete through time. The priority of relevant program must be maintained if

these monuments are to contribute to the social order.

The necessity of relevant function in monuments is not only important for the individual building but also for the city as a greater whole. The potential of historic buildings to regenerate neglected neighbourhoods is widely recognized. Benefits include: less expensive than new construction, avoids the environmental burden of demolition and civic pride. Derelict, unkempt and abandoned buildings become hubs for crime and delinquent behaviour. It is necessary for the health of the city that monuments retain a vibrant and useful program.

This thesis proposes an alternative methodology for the treatment of Heritage Monuments. It is clear that present practice – the diagnostic method – is incapable of addressing the question of relevant program. When these buildings become obsolete and unused, they lose their status as architecture. I offer an alternative - Prognostic Conservation. Prognosis in medicine is the practice that considers a patient individually, in his or her uniqueness, as separate from a disease or external cause. The ancient physician, practicing prognosis, develops a unique treatment plan which guides the patient toward a better possible future. The parallel to conservation is easy to draw. I have separated what I call the practice of prognostic conservation into 3 directives.

(1) The first: continuing function of the building must take precedence. Prognosis rejects the idea that the past is the preferred condition – it envisions a vibrant future, and most necessary to this future is a relevant program. (2) Secondly, prognosis looks to the past and present to colour future possible conditions. Like the ancient physician who studies the unique circumstances of his patient, prognostic conservation studies the history and current incarnation of the monument in order to best continue its narrative. (3) Lastly, prognosis is not inherently antithetical to diagnostic conservation; it appreciates heritage.

The architectural project addresses prognostic conservation as it is applied to

a functionally obsolete building: the adaptation of the First Baptist Church in downtown Ottawa, on the corner of Elgin and Laurier. The first directive of Prognostic Architecture – the continuance of relevant program is addressed thus, that the dwindling congregation foretells functional obsolescence for the church, and to adapt the site to a concert hall reconciles the needs of both the city and the edifice. The second directive of prognostic architecture is addressed through thorough building and site documentation, affecting such design decisions as the new raked amphitheatre interior sanctuary space, the acoustic canopy, and the administrative building. Finally, the third directive of prognostic architecture is addressed through the treatment of the concert hall as it expands from the original edifice. The design respects the north, west, and south facades of the original church. The interior auditorium follows and maintains the original extent of the annex walls. The interior sanctuary woodwork, choir loft and organ are maintained in their current condition.

Monuments, when conserved through prognosis, are able to reintegrate within the social order of the city. Heritage buildings can now be engaged with on a daily basis as they meet the needs of an evolving society, they can remain relevant despite their heritage qualities. This fate is much more preferable to becoming an exhibition of itself, as is the case for monuments under the guidance of the *Venice Charter*. The prognostic method is able to reintegrate functionally obsolete monuments into the social order, returning them to the hands and lives of the citizens. It is only through prognostic conservation can the real legacy of built heritage be preserved for posterity.

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FIG 17
FIGURE GROUND
CITY/VISCINITY/NEIGHBOURHOOD
OTTAWA 2010

FIG 18
BASEMENT FLOOR PLAN
FIRST BAPTIST CHURCH
PRESENT CONDITIONS
FALL 2010

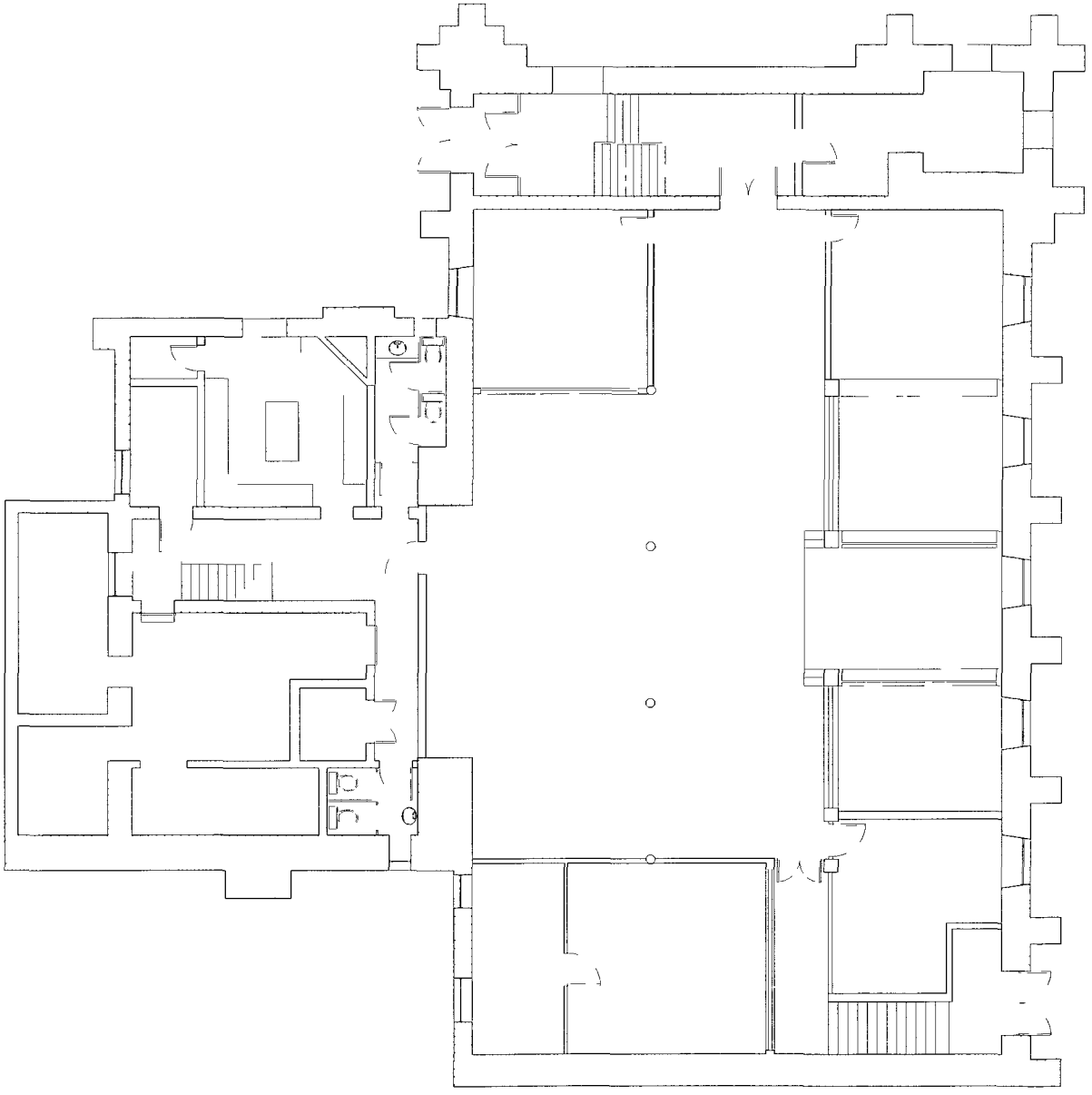


FIG 19
GROUND FLOOR PLAN
FIRST BAPTIST CHURCH
PRESENT CONDITIONS
FALL 2010

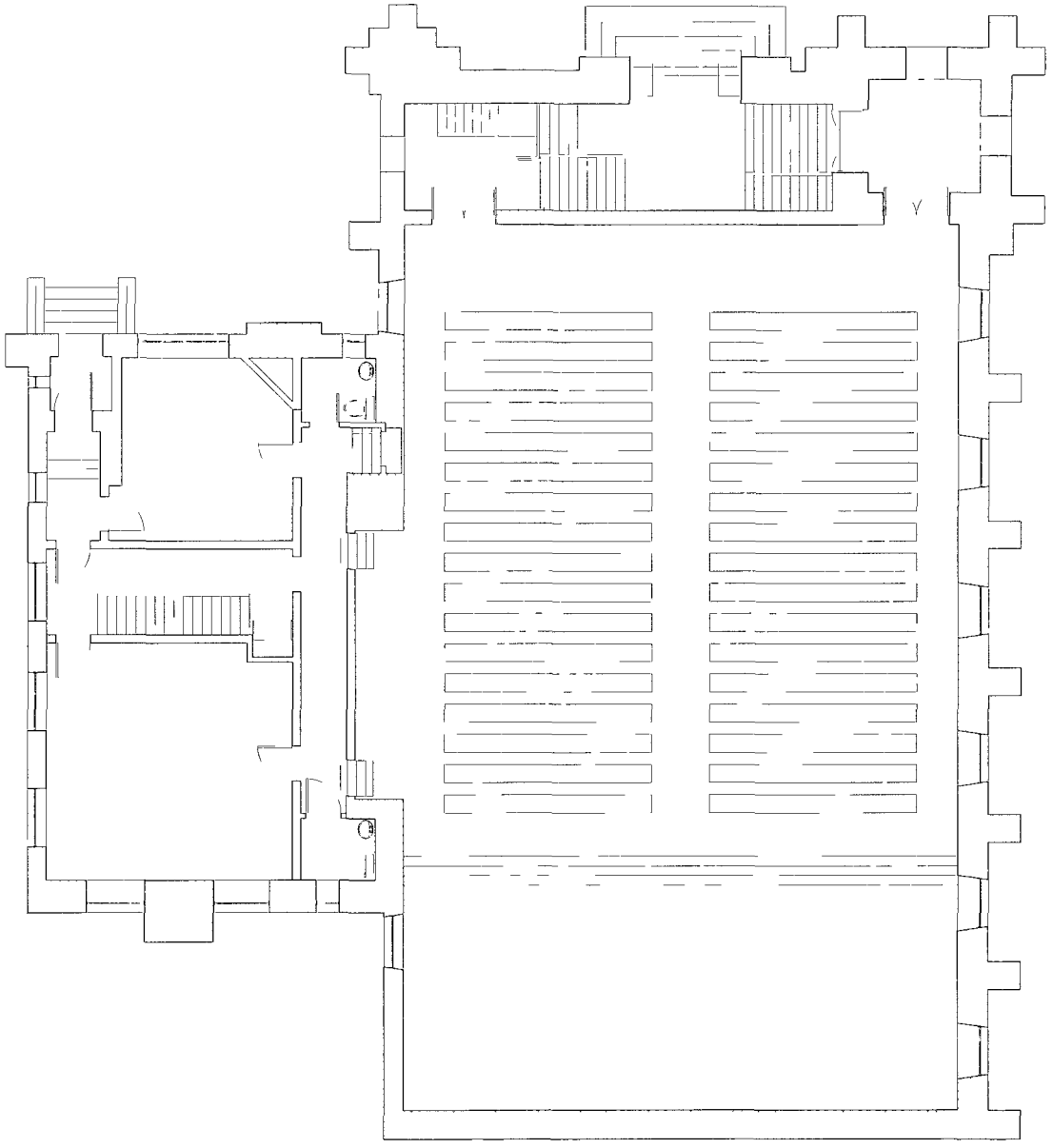


FIG 20
SECOND FLOOR PLAN
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

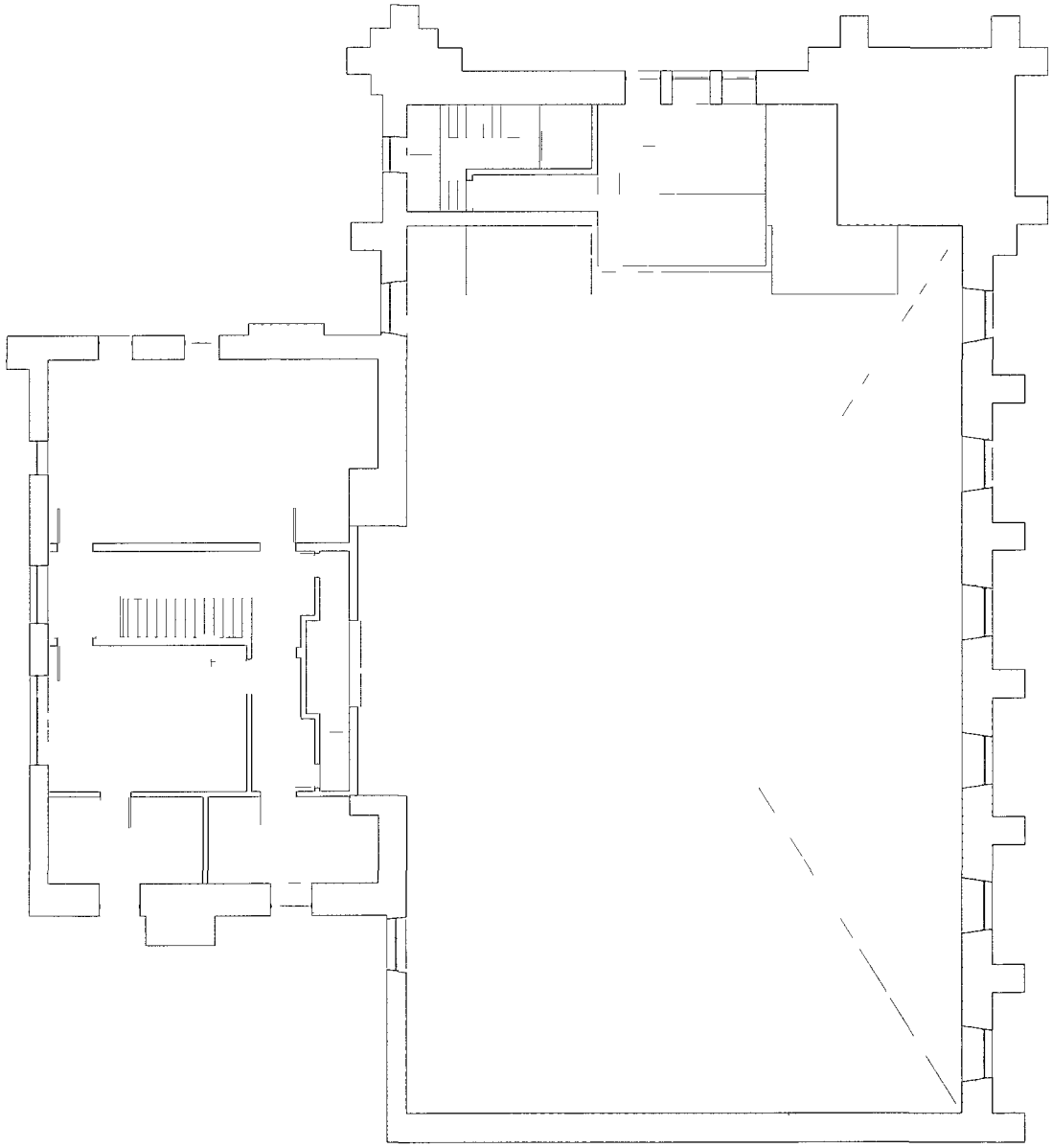


FIG 21
FRONT ELEVATION (NORTH)
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

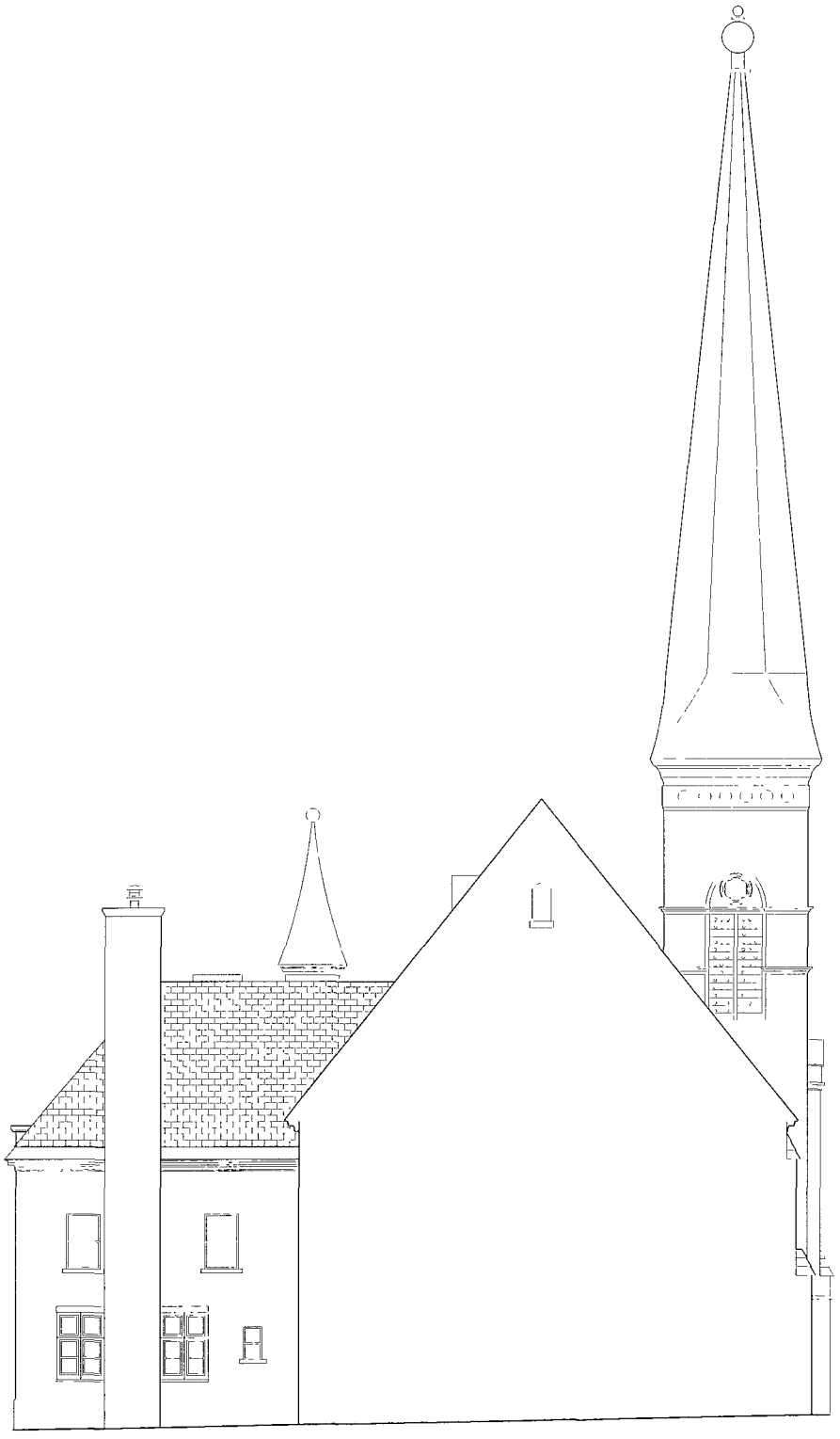


FIG 22
REAR ELEVATION (SOUTH)
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

FIG 23
SIDE ELEVATION (WEST)
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

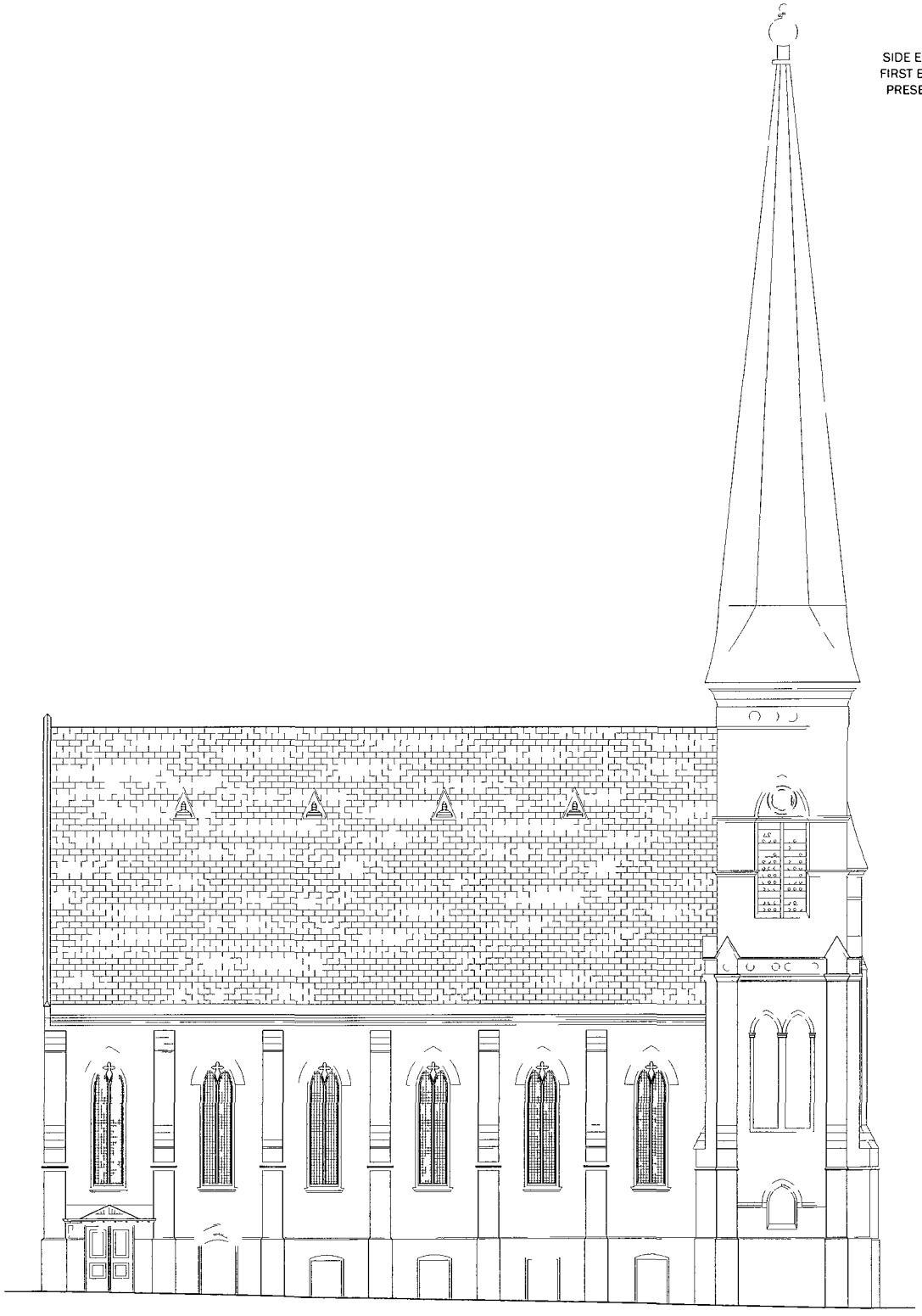


FIG 24
SIDE ELEVATION (EAST)
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

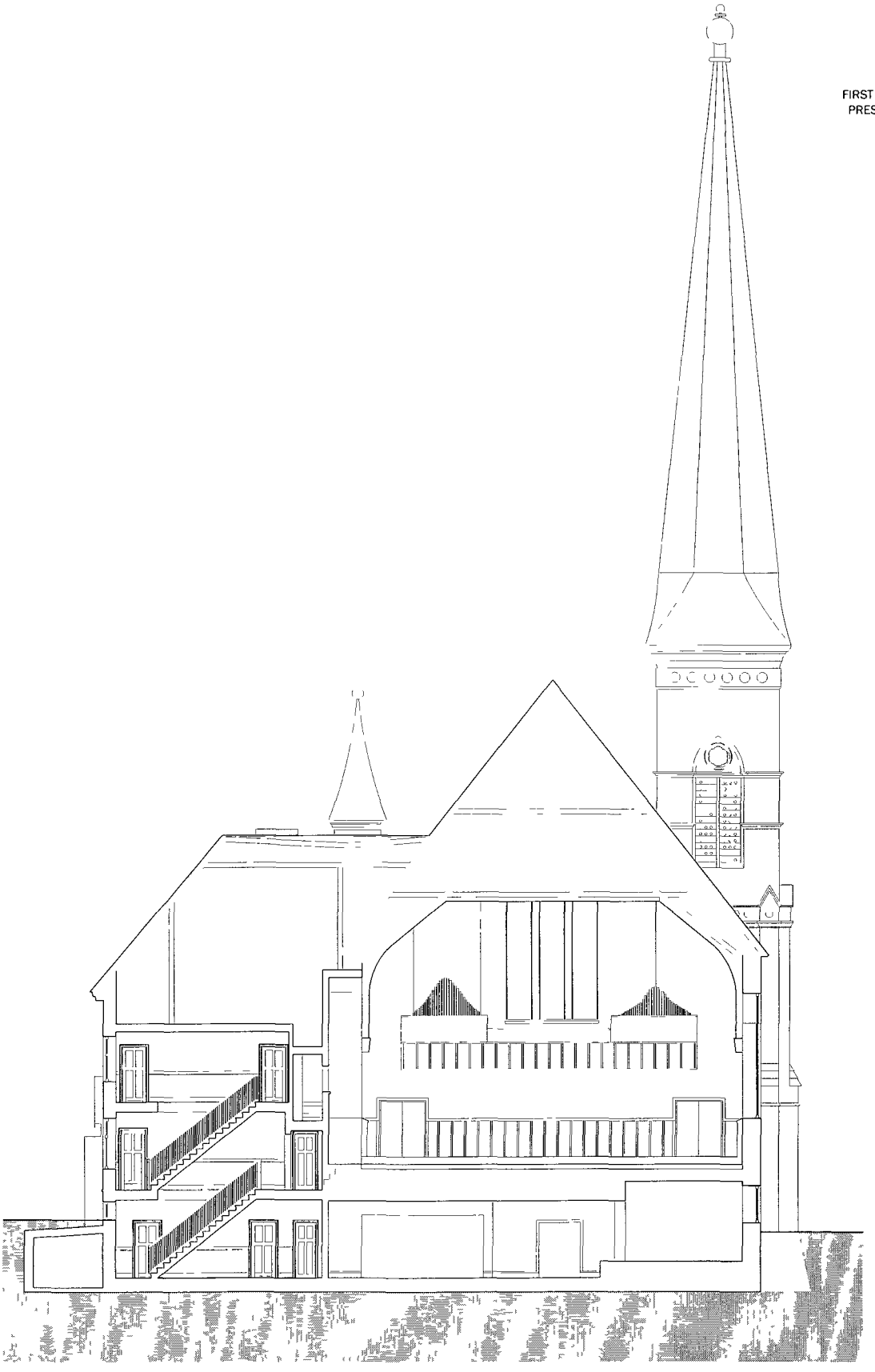


FIG 25
CROSS SECTION
THROUGH ANNEX
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

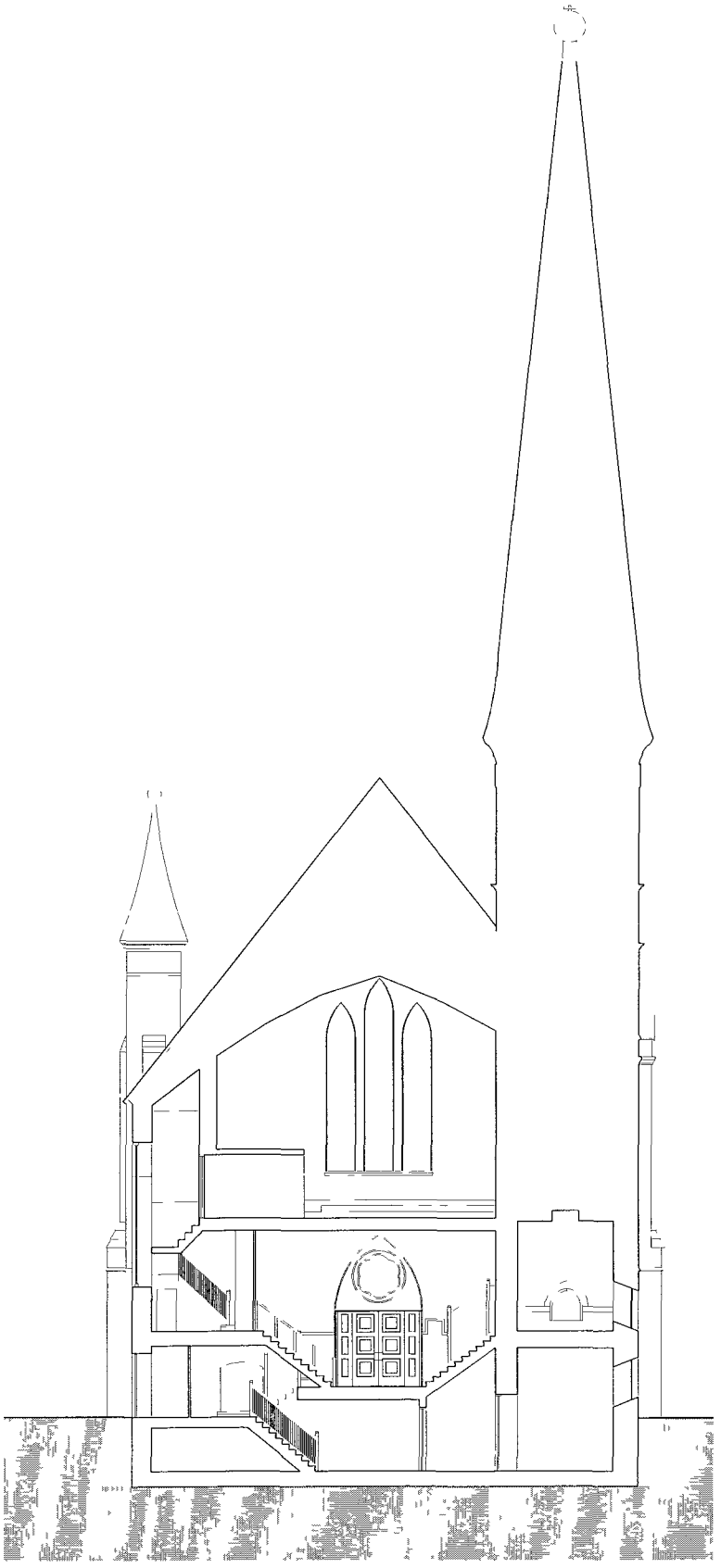


FIG 26
CROSS SECTION
THROUGH BELLTOWER
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

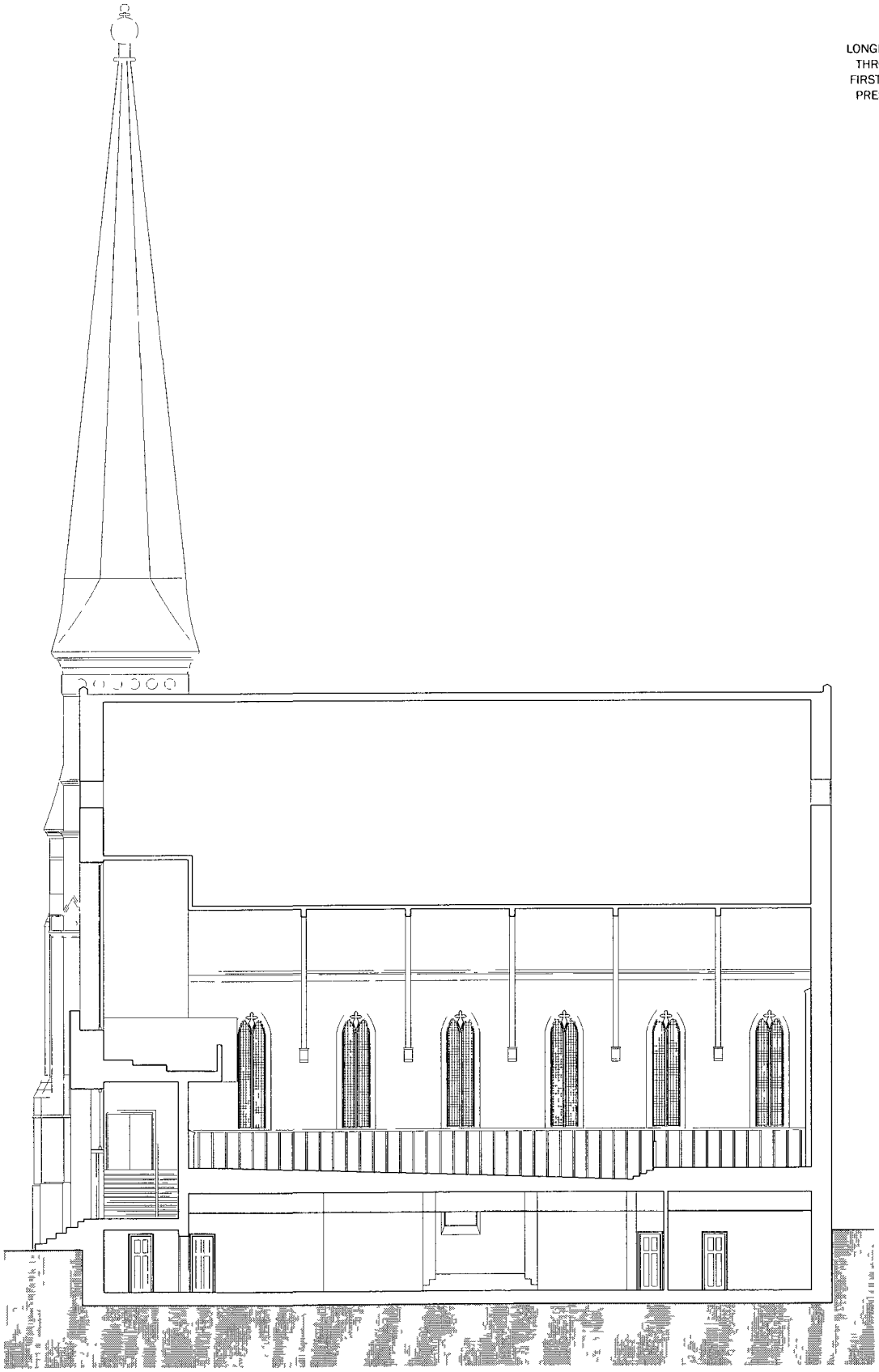


FIG 27
LONGITUDINAL SECTION
THROUGH SANCTUARY
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

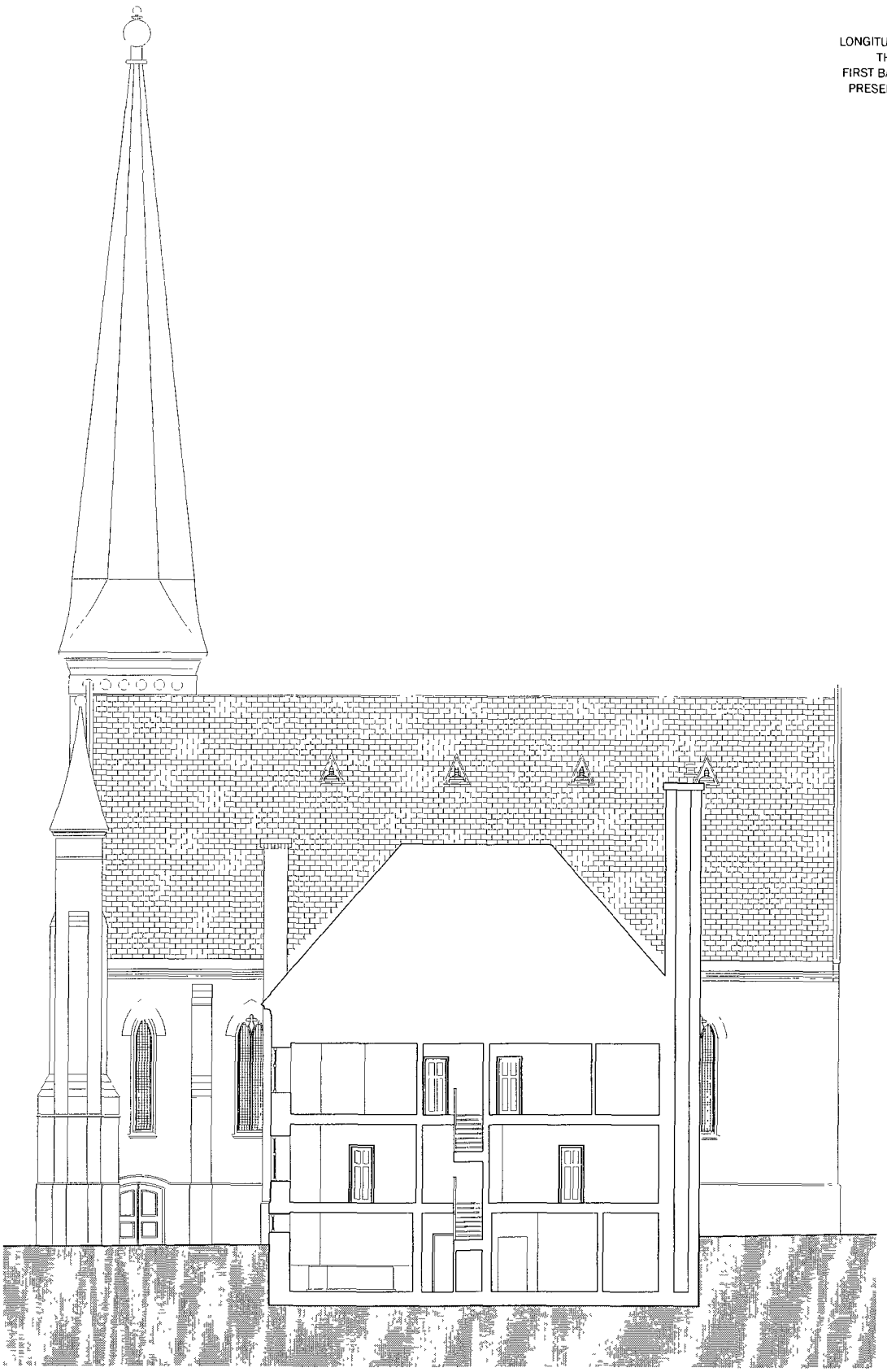


FIG 28
LONGITUDINAL SECTION
THROUGH ANNEX
FIRST BAPTIST CHURCH
PRESENT CONDTIIONS
FALL 2010

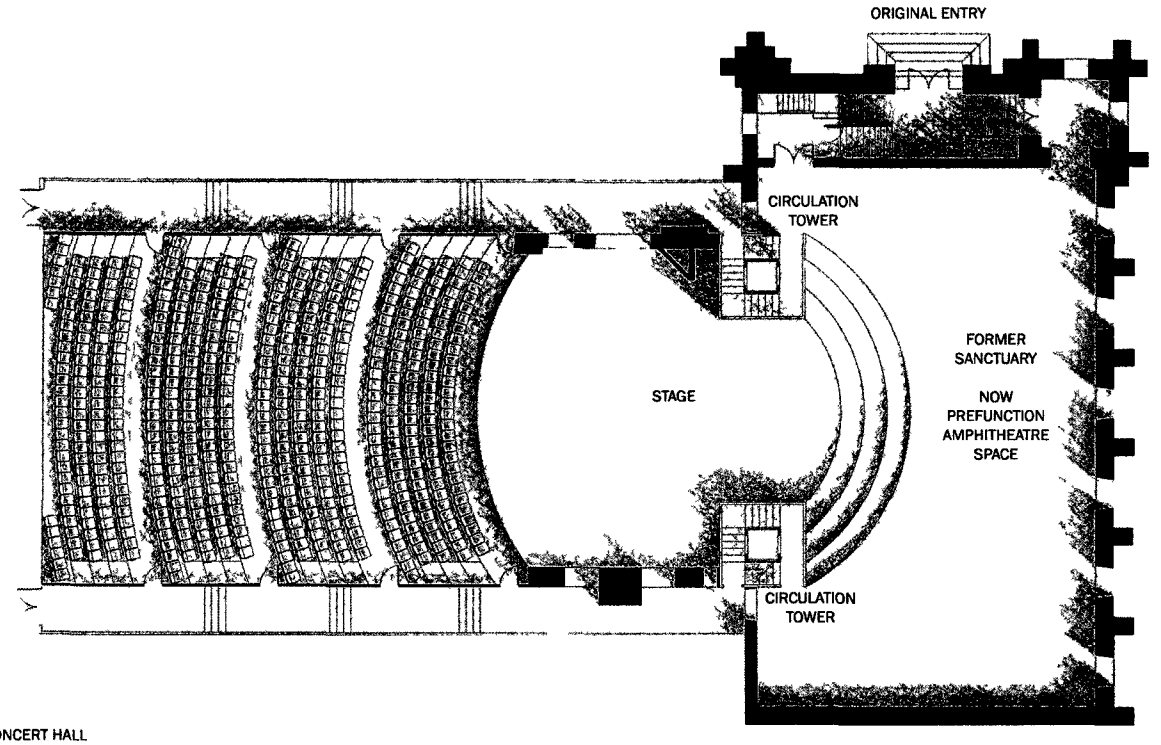


FIG 29
FBC CONCERT HALL
GROUND FLOOR PLAN
PROPOSED ALTERATIONS

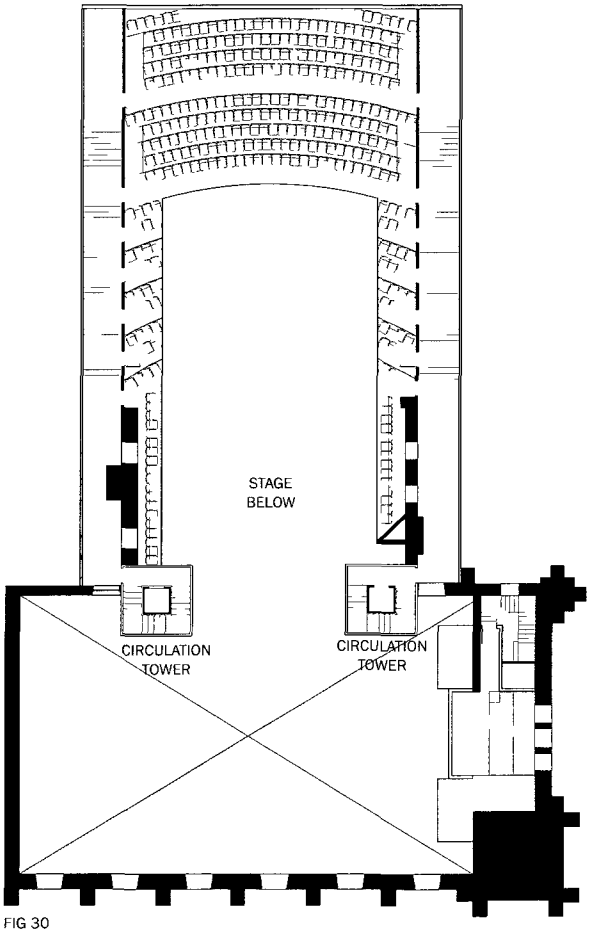


FIG 30
FBC CONCERT HALL
SECOND FLOOR PLAN
PROPOSED ALTERATIONS

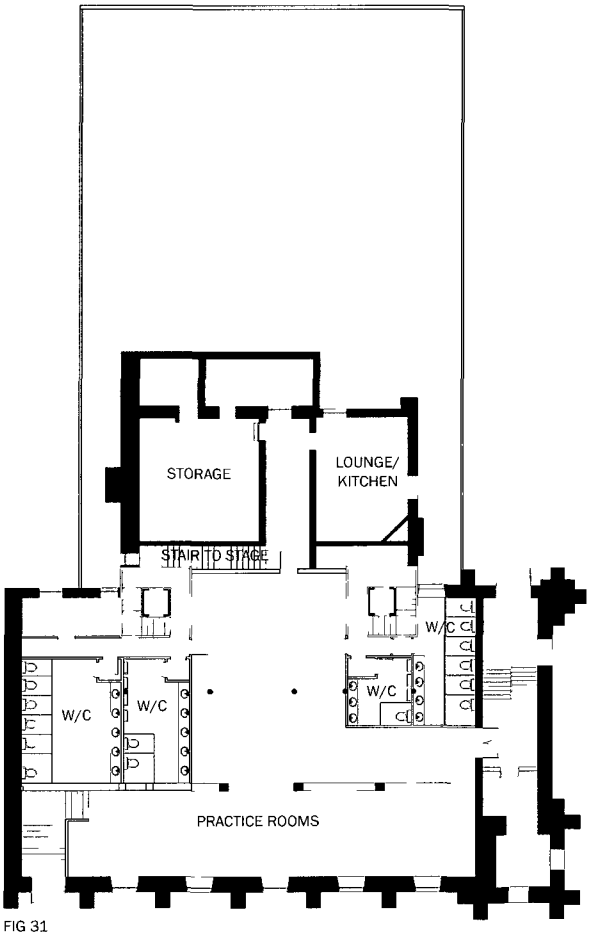


FIG 31
FBC CONCERT HALL
BASEMENT FLOOR PLAN
PROPOSED ALTERATIONS

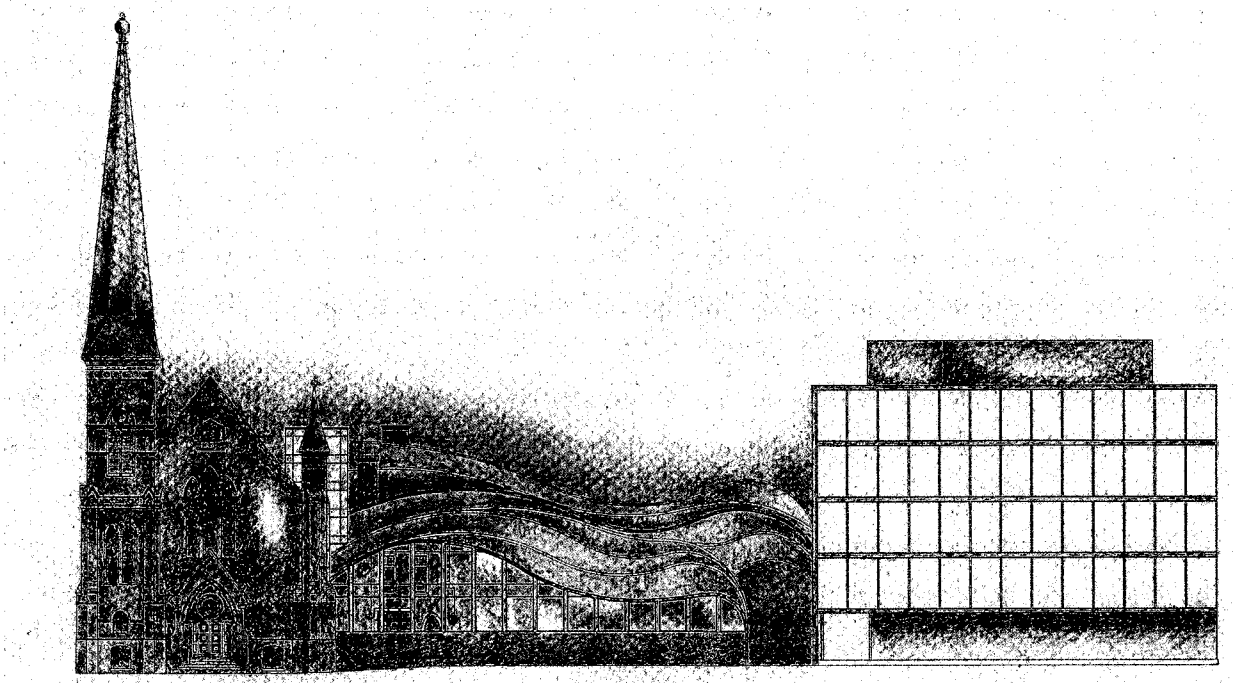


FIG 32
FBC CONCERT HALL
LAURIER FACADE
PROPOSED CONDITIONS

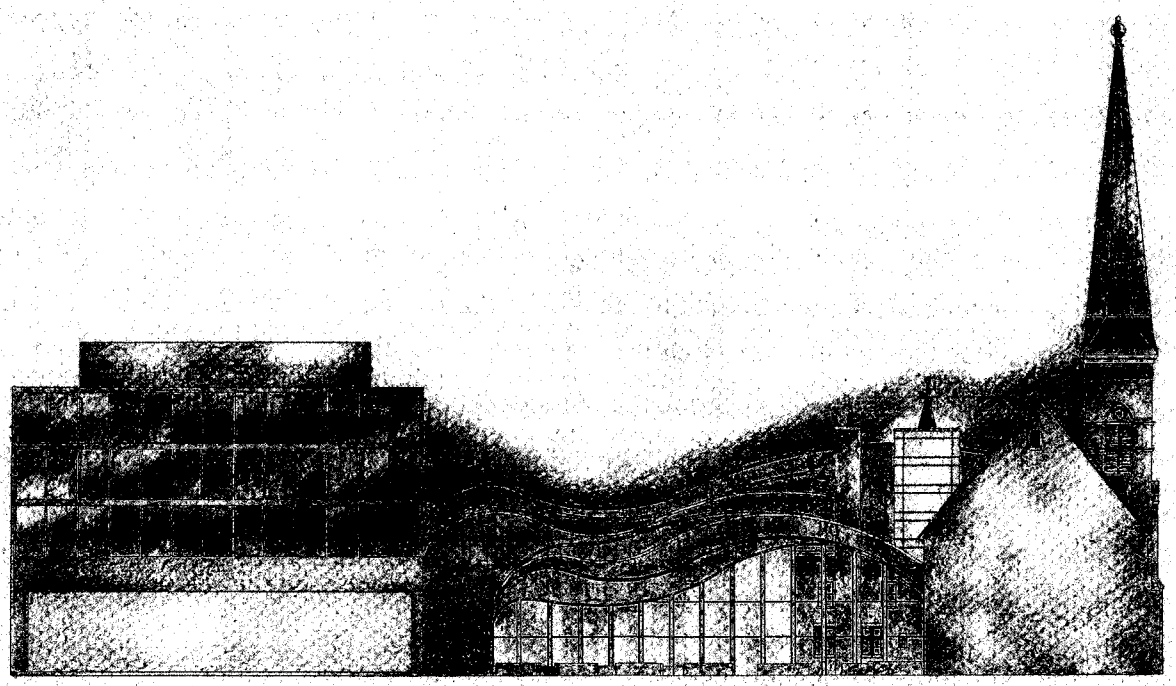


FIG 33
FBC CONCERT HALL
GLOUCESTER ELEVATION
PROPOSED CONDITIONS

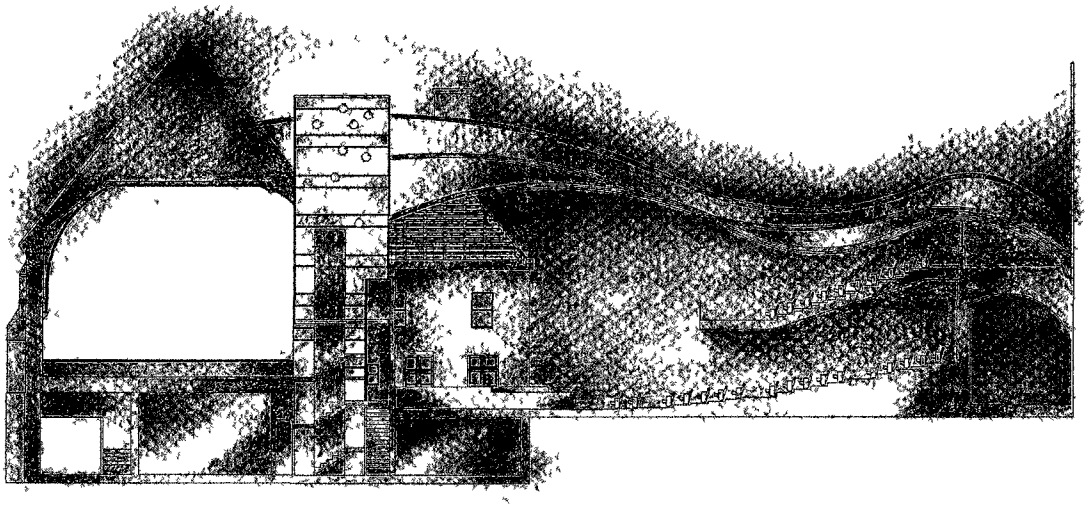


FIG 34
FBC CONCERT HALL
LONGITUDINAL SECTION
PROPOSED CONDITIONS

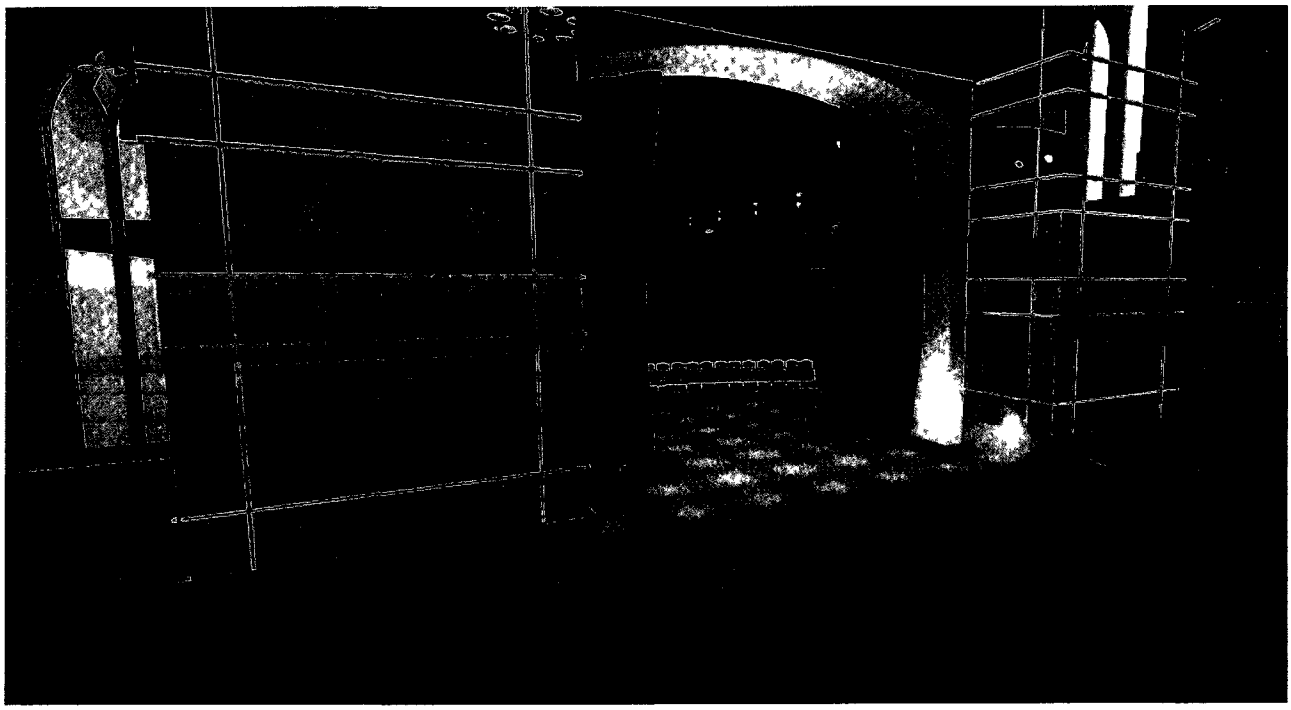


FIG 35
FBC CONCERT HALL
SANCTUARY AMPHITHEATRE
FACING AUDITORIUM
WITH GLASS CIRCULATION TOWERS

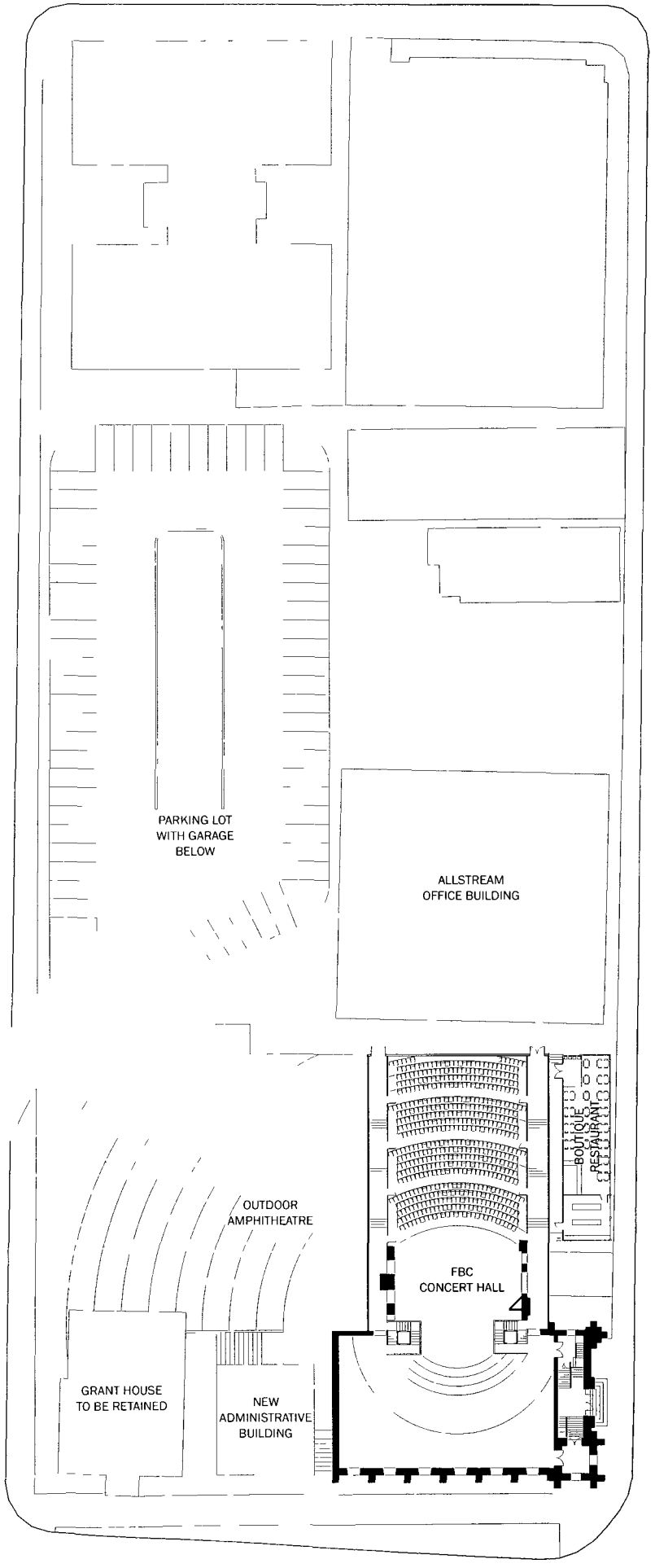


FIG 36
SITE PLAN
FBC CONCERT HALL
AND SURROUNDS

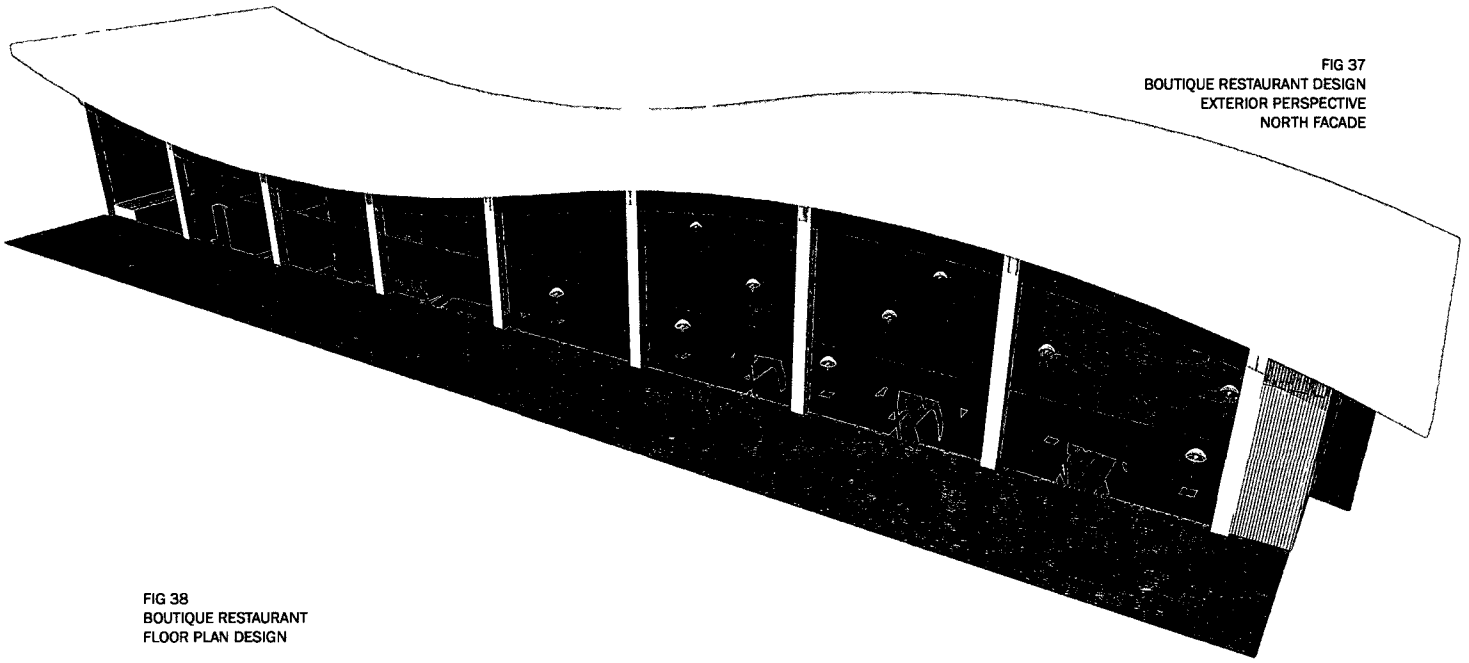
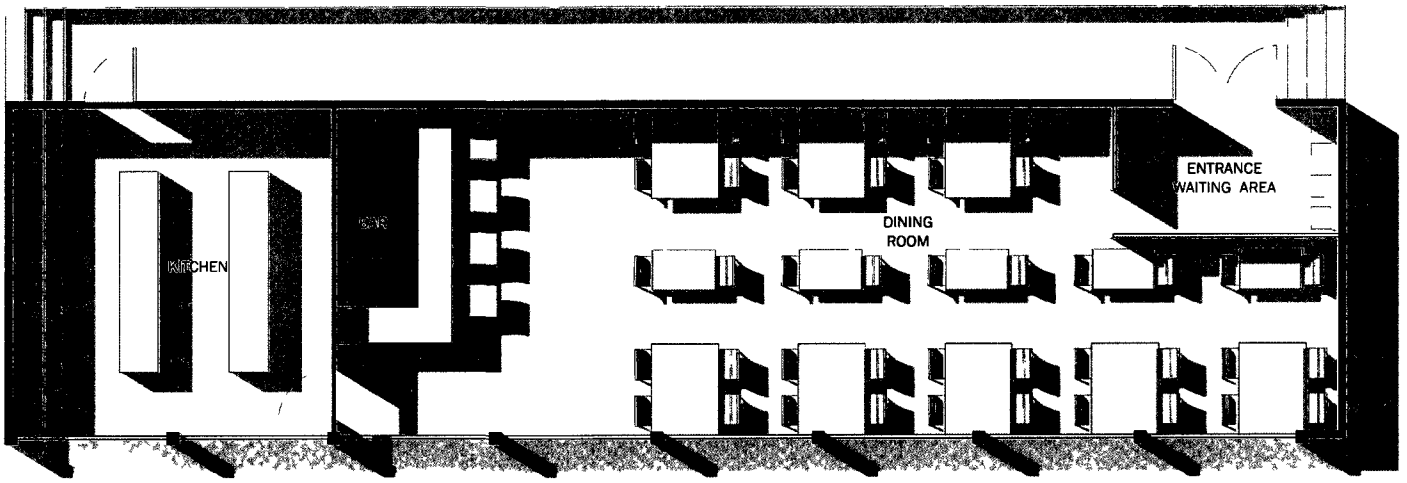


FIG 37
BOUTIQUE RESTAURANT DESIGN
EXTERIOR PERSPECTIVE
NORTH FACADE

FIG 38
BOUTIQUE RESTAURANT
FLOOR PLAN DESIGN



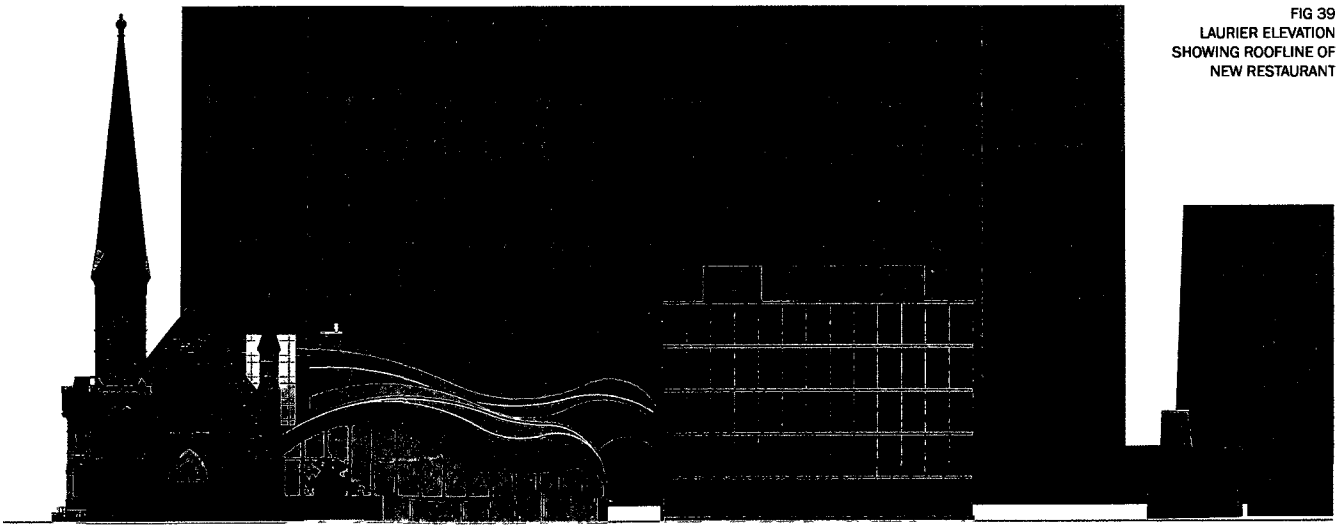


FIG 39
LAURIER ELEVATION
SHOWING ROOFLINE OF
NEW RESTAURANT

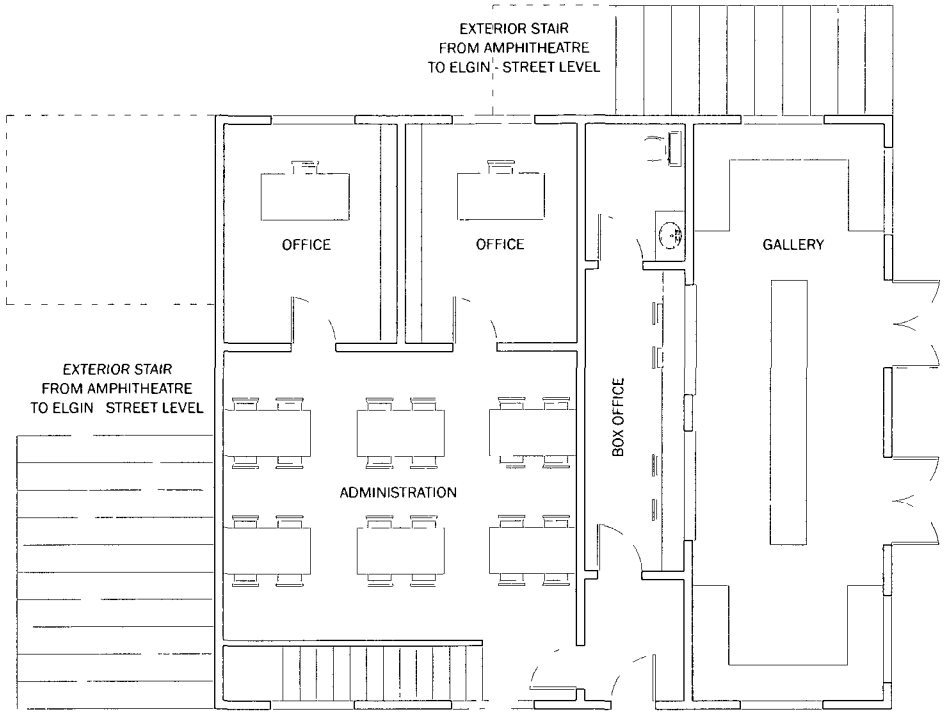


FIG 40
ADMINISTRATIVE BUILDING
GROUND FLOOR PLAN

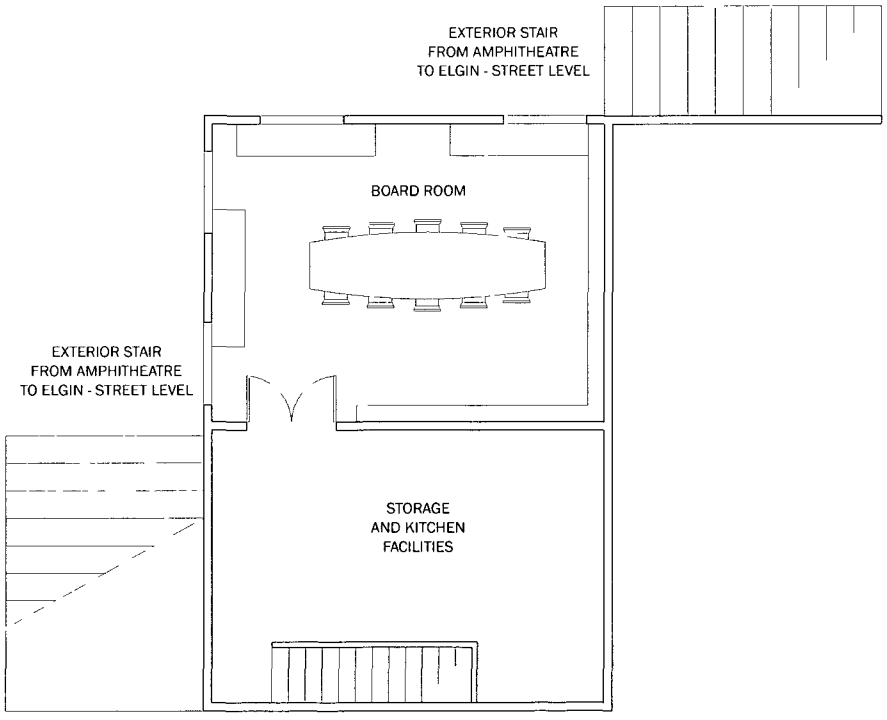


FIG 41
ADMINISTRATIVE BUILDING
BASEMENT FLOOR PLAN

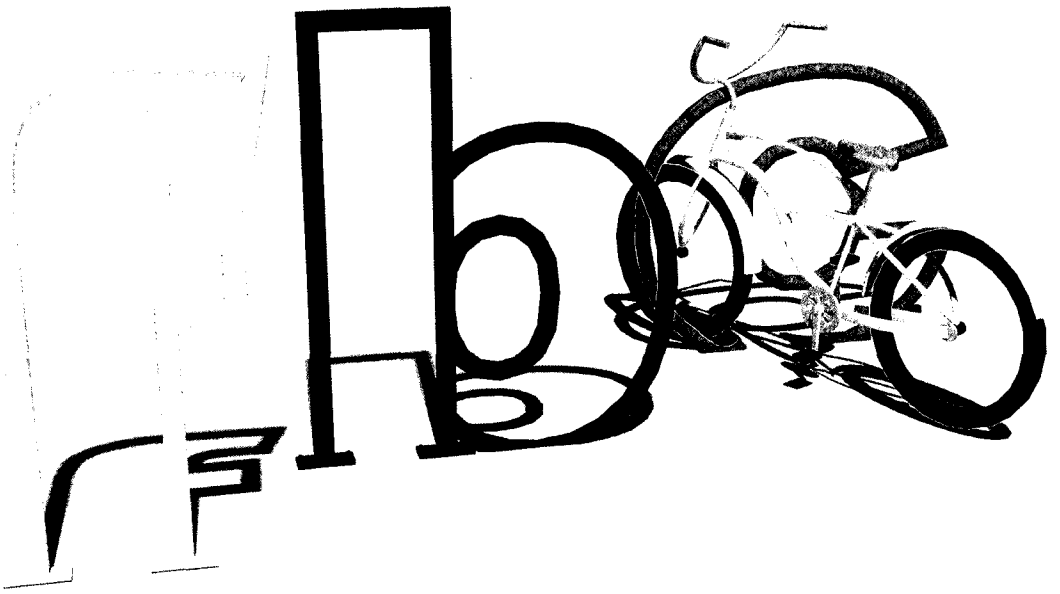


FIG 42
BIKE RACK DESIGN
LOCATED ALONG ELGIN STREET
ADJACENT TO FBC EAST FACADE

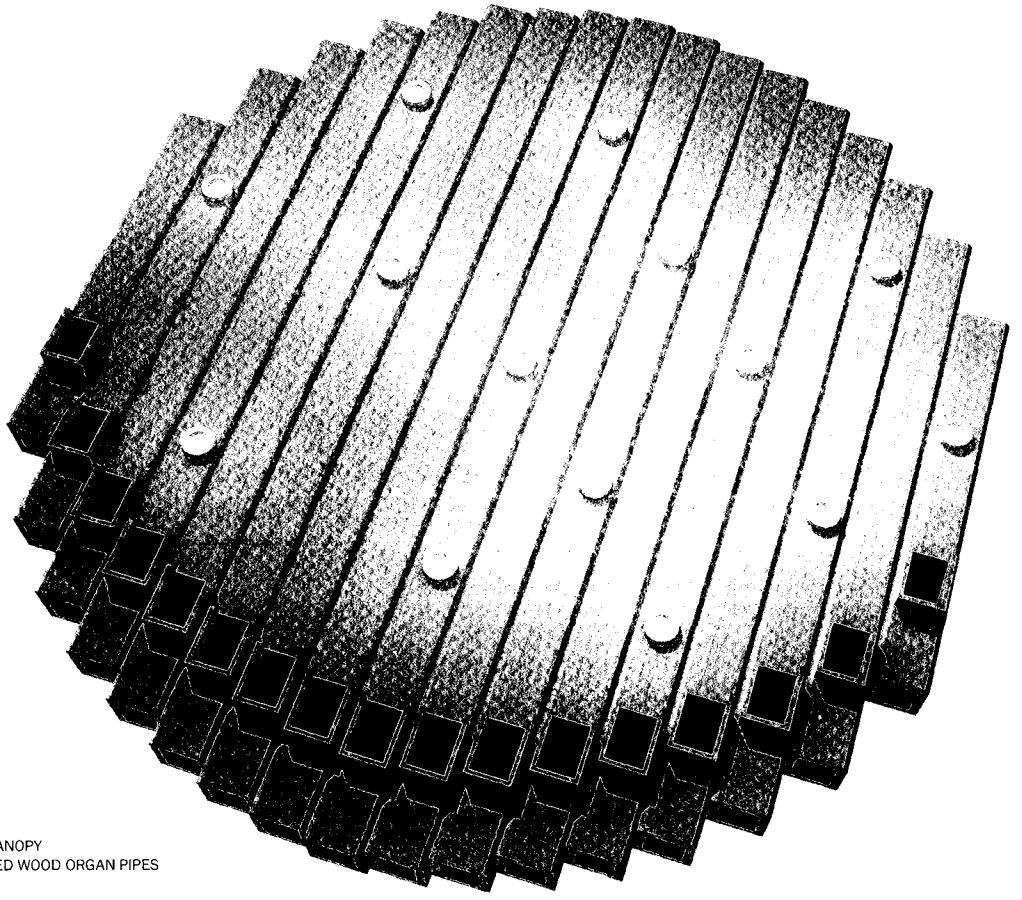


FIG 43
ACOUSTIC CANOPY
RE-PURPOSED WOOD ORGAN PIPES

FIG 44
EXTERIOR AMPHITHEATRE
PERSPECTIVE RENDERING
WITH REAR OF FBC CONCERT HALL

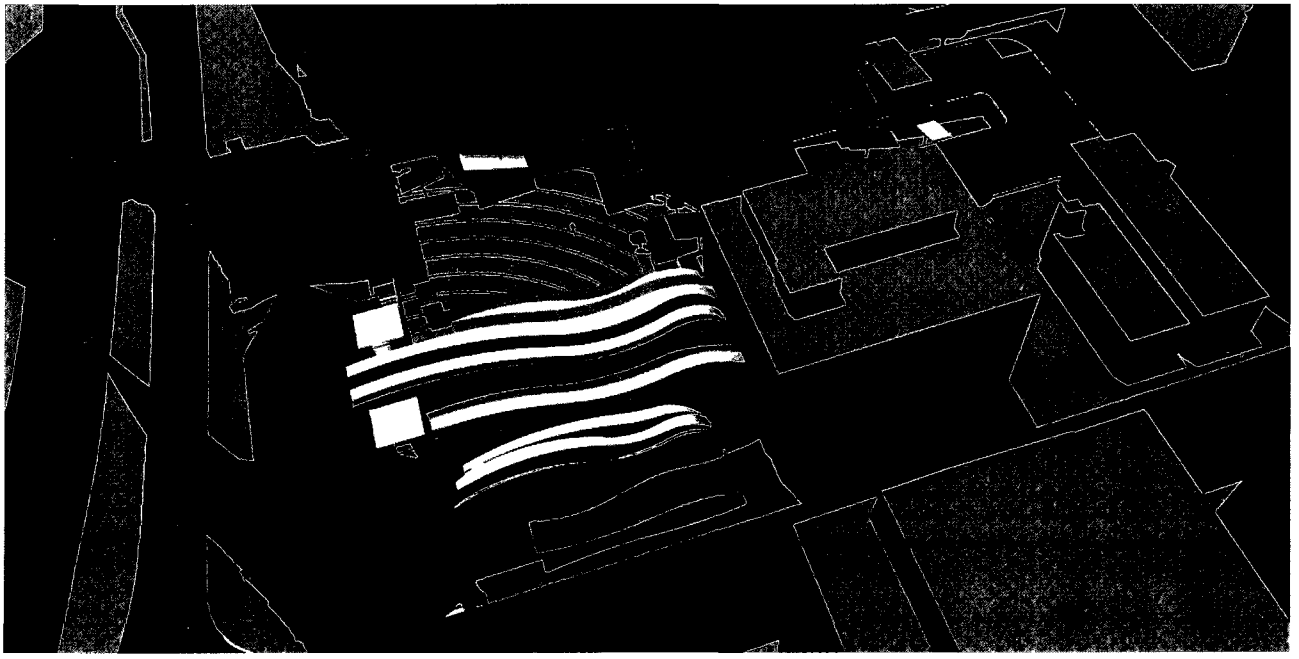


FIG 45
PROPOSED SITE
PERSPECTIVE RENDER