

THE ART OF SYNTHESIS



UNITAS PRESS

THE ART OF

ORIGINS OF ORGANIC ARCHITECTURE

JOHN H. HOWE

SYNTHESIS

FIRST UNITAS
PRESS EDITION
DECEMBER, 2013

Diana T Witcher
Alex DeArmond
Dr. Andrew Williams

All rights reserved.
Published in the United States by Unitas Press.

Witcher, Diana
The Art of Synthesis / Diana Witcher
1. Architecture
2. Architecture - Society
3. Architecture - Aesthetics

www.unitaspress.com

Unitas Press
Minneapolis, New York and Tokyo.
2013

CONTENTS

Preface	i
Introduction	iii
Apprenticeship to Frank Lloyd Wright	1
Life and Work After Frank Lloyd Wright	15
John Howe's Organic Architecture	19
Organic Architecture and Its Japanese Influence	25
A System of Units	31
John Howe's Public Buildings	35
Menomonie Public Library	37
Church of Christ, Scientist	59
Conclusion	87
References	91
Acknowledgments	95

PREFACE

John H. Howe was a prolific architect who was a major contributor to the development of organic architecture in the Midwestern United States. He served as Frank Lloyd Wright's chief draftsman for 27 years and through Wright's teachings, learned the principles of organic architecture. He subsequently developed a deep affinity for Japanese culture. This book highlights Howe's later designs for public buildings, the First Church of Christ, Scientist in New Brighton, Minnesota and the public library in Menomonie, Wisconsin. Analysis of John Howe's drawings, philosophy of architecture and the characteristics of the buildings show not only Wright's influence, but reveal John Howe's unique design method and reverence for Japanese art and design.

INTRODUCTION

The early Prairie School architects were innovators in American architecture and provided the groundwork that lead to later innovations in organic architecture, realized by Frank Lloyd Wright and his colleges. Designing new structural forms through a combination of discipline and creativity, they produced exceptional buildings that are intentionally related to the earth. Achieving success through artistic integrity and innovative, forward-thinking design, their distinctive buildings dot the tranquil landscape of the Upper Midwest. John H. Howe's practice resulted in a number of inspiring examples of organic architecture, a style uniquely defined by the influence of Japanese aesthetic, resulting in buildings that are user centered and site specific.

A member of the Taliesin Fellowship for 32 years, he accomplished over 100 built designs in 28 states and Canada. The majority of his work is located in the Upper Midwest. He realized over 80 buildings in the area of Minneapolis, Minnesota. John Howe spent the first half of his career working as Frank Lloyd Wright's chief draftsman, creating

The Art of Synthesis

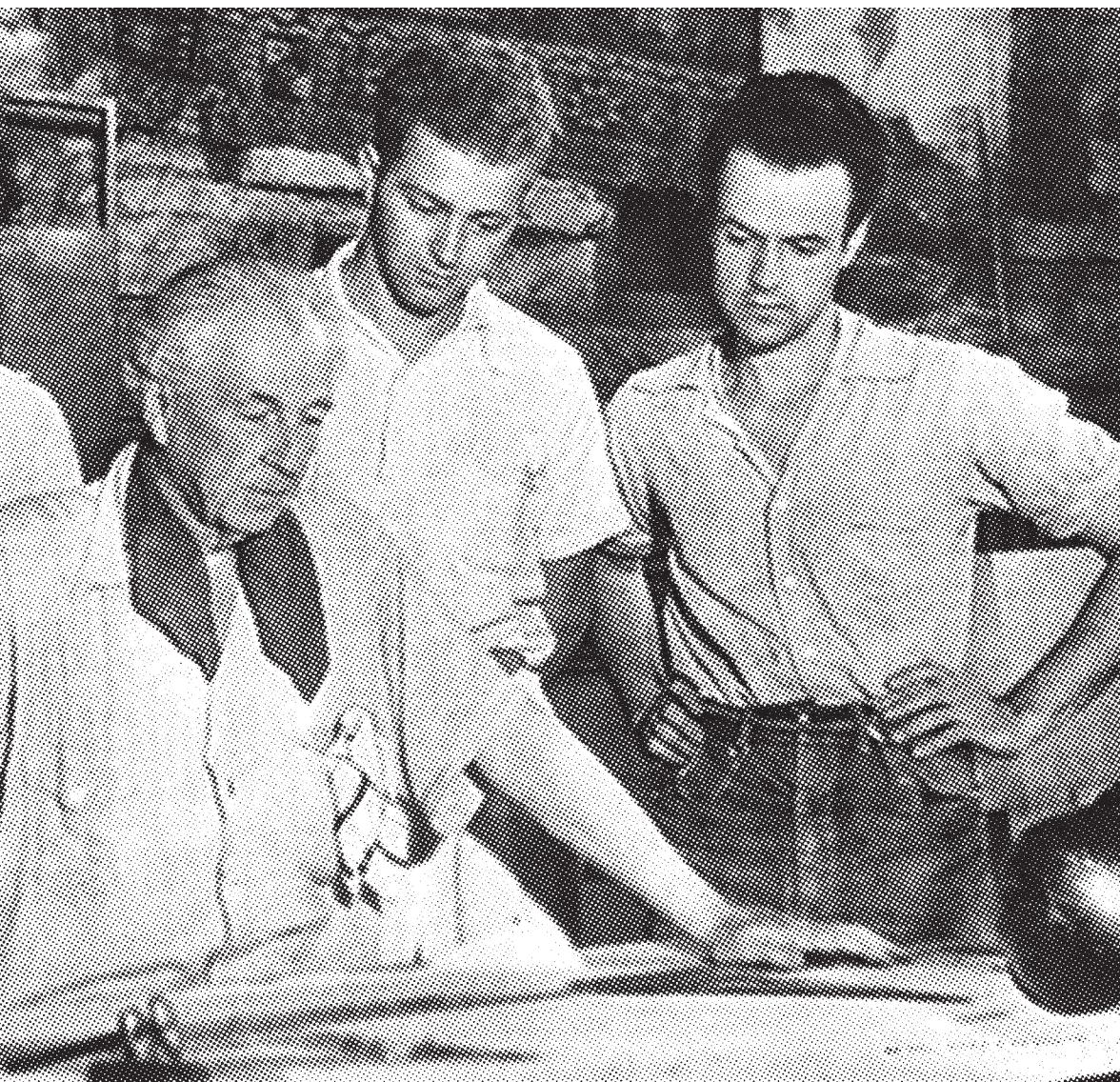
buildings that were radical in their conception and informed by antiquity. Overshadowed by Wright's fame, John Howe's architecture is relatively unknown.

Organic architecture defies a concise and comprehensive explanation. Imagined by the innovative intellect of Frank Lloyd Wright, the concept was developed through the many projects realized in his architecture studio. Organic buildings are characterized by an interrelationship between the surrounding landscape and the needs of the inhabitants. This connection is made tangible by the intentional use of materials. Careful attention to the site and the nature of materials results in spaces that are elegant, harmonious and uniquely composed. Japanese architecture shares these same qualities and the first organic architects looked to Japan for aesthetic models and primary inspiration. This Eastern influence distinguishes organic architecture from traditional Western architectural designs. Simplicity triumphs over decoration, buildings stand in harmony with the earth rather than being imposed upon it. Natural, modern and inexpensive materials are chosen for their inherent qualities and are a source of inspiration for the design. Both Japanese and organic traditions rely upon a system of intimately related architectural elements built with impeccable craft, creating spaces of simplicity and elegant function.

The relationship between organic architecture and its Japanese influence are illustrated in John Howe's public buildings, the most accessible examples of his work. The most intact and relevant are the First Church of Christ, Scientist (1972) in New Brighton, Minnesota and the Menomonie Public Library (1985) in Menomonie, Wisconsin. These buildings share common design elements with Japanese

Origins of Organic Architecture

architecture. In both traditions a pattern of units defines the structure of the building and the relationship of architectural elements to one another. Likewise, there is an overall aesthetic of simplicity and attention to detail. Buildings in both organic and Japanese traditions are naturally integrated into the site, revealing a reverence for the natural environment. These considerations are evident in John Howe's unique design style, which reveals his roots in organic architecture and his admiration for Japanese art and design.



APPRENTICESHIP TO FRANK LLOYD WRIGHT

It may be impossible to discuss John Howe's career without first highlighting his relationship with Frank Lloyd Wright. In 1932, one week after graduating from high school in Evanston, he joined the first class of students in the Taliesin Fellowship, an apprenticeship program, later to become the Frank Lloyd Wright School of Architecture. Wright and his wife Olgivanna Lloyd Wright founded the Fellowship that same year in Spring Green, Wisconsin.

Living and working at Taliesin was a formative experience for John Howe. He said in a 1998 interview with Richard Kronick, that Frank Lloyd Wright taught him how to live. The apprentices worked alongside Wright in all things, sharing the tasks of everyday living. During the Great Depression everyone at Taliesin, including Mr. Wright, worked at subsistence farming. John Howe learned the joy of hard work and the appreciation of music. Frank Lloyd Wright taught a fundamental work ethic, believing the words of a hymn they would sing at Taliesin, "Joy in work is man's desiring". Frank Lloyd Wright was

Frank Lloyd Wright, with
apprentices Edgar Tafel
and John Howe. Public Domain.

The Art of Synthesis



an excellent draftsman and had taught John Howe the style and drawing technique that he perfected under his teacher Louis Sullivan. With Wright's guidance, Howe refined his skill at producing pencil and ink plans and perspectives.

After completing his training in 1935, John Howe became chief draftsman and senior apprentice in charge of Taliesin drafting studios. He rendered Wright's designs, supervised the work of the apprentices, and oversaw various building sites. Howe's skill as a draftsman made him a central member of the architecture studio at Taliesin. He learned to work very quickly in order to keep up with Wright, creating two sets of hand colored drawings for each project, often drawn directly onto the blue-line drawings. Authors Jane King Hession and Tim Quigley note that Howe had a hallmark technique that involved many

- 2 *Taliesin West*. Frank Lloyd Wright.
1937. Scottsdale, Arizona.
©2012 Jan Messersmith.
Flickr Creative Commons.

Origins of Organic Architecture

perfectly drawn parallel lines, rendering planes in color. He was known for his unique, stylized way of rendering vegetation, illustrating the integration of the design into the site, a cornerstone of organic architecture. These drawings distinguished John Howe throughout his career, the excellence and speed at which he could render was remarkable. This skill undoubtedly aided him in the second chapter of his career, his architecture practice in Minneapolis, Minnesota.

John Howe created many of the beautiful drawings and perspectives for Wright's most famous buildings including Fallingwater (1934) in Mill Run, Pennsylvania, the Johnson Wax Building (1936) in Racine, Wisconsin, and the Guggenheim Museum in New York City (1943). These drawings were indispensable when communicating design ideas to clients and ultimately helped make possible the realization of Frank Lloyd Wright's, and later John Howe's architectural designs.

In 1933, due to Frank Lloyd Wright's health, the Fellowship began spending winters 30 miles north of Phoenix, Arizona. In 1937, 600 acres were purchased for a permanent location near Scottsdale, Arizona. Filmmaker Rob Barros wrote that it is likely that same year John Howe gave Wright a drawing, as a customary Christmas Box gift, titled "A Desert Camp for the Taliesin Fellowship", a preliminary site plan for Taliesin West. The drawing outlined the functional and spatial relationships of the existing buildings.

A man of remarkable integrity and social conscience, John Howe was arrested at Taliesin in 1942 for refusing conscription into the army during WWII. In 1943 he was put on trial and sentenced to prison, spending nearly three years in the Federal Correctional Institution at Sandstone,

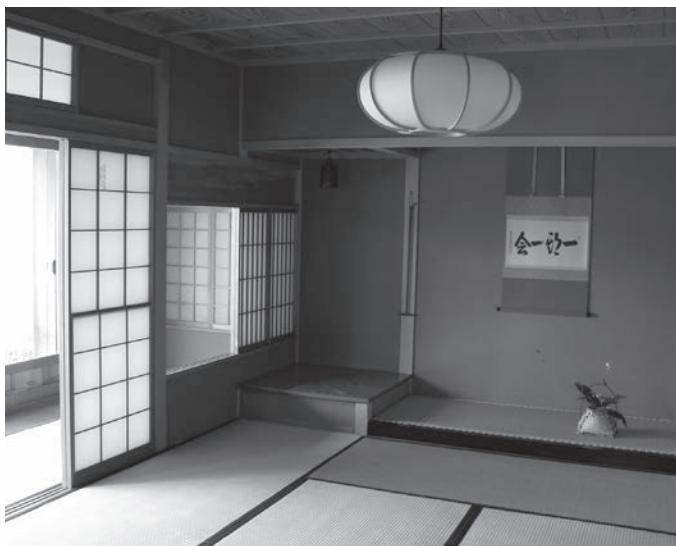
The Art of Synthesis

Minnesota. The facility was minimum security and Howe continued to work, creating a number of designs for buildings and futuristic objects, like a motor home for Frank Lloyd Wright. He taught drawing and drafting to fellow inmates, of whom many were imprisoned for the same reason.

Howe's first connection with Japan originated with Frank Lloyd Wright, who had a relationship with the culture that was varied and enduring. While Wright's inspiration was drawn from many sources, his admiration for the art and architecture of Japan was a key influence in his work. Wright first traveled to Japan in 1905 and maintained a residence in Tokyo between 1917 to 1922. He was a great collector of Eastern art, and most especially Japanese prints. His admiration for the *Ho-o-den Temple, Phoenix Hall* at the 1893 World's Fair in Chicago is well documented. The building was a wooden copy of the *Byodo-in Temple* in Uji on the outskirts of Kyoto. Wright was quite taken with the structure and spent hours at the site studying it.

It was at this time that Wright's work began to reflect the primary features of the prairie style which likely have some basis in Japanese architecture: open and cruciform plans, horizontal proportions, movable screen-like walls, wide overhangs, and the fireplace as the center of the design. This function of the fireplace may mirror that of the *tokonoma*, a central alcove in a Japanese home, which often contains a treasured art object and flowers. The temple was an ongoing theme in Frank Lloyd Wright's architecture. Author Kevin Nute observed in *Frank Lloyd Wright and Japan* that Wright's organization of each building into spatial zones may be inspired by the layered space of Japanese buildings. The author wrote, "Wright seems to have treated the institutions of dwelling and

4 World's Columbian Exposition:
The Japanese Ho-o-Den. 1893.
©Wikimedia Commons.



temple as essentially interchangeable, consciously striving to make the home a more spiritual domain and the church a more human one...”.

Author Julia Meech documented in her book *Frank Lloyd Wright and the Art of Japan* that the study of Japanese art was an important part of the curriculum at Taliesin and integral to the philosophy Frank Lloyd Wright imparted to his students. As a student at Taliesin, John Howe looked to Japanese woodcuts to understand the importance of abstraction and simplification in architecture. Beginning with the first class of apprentices in 1932, Wright stressed the study of his extensive Japanese print collection, which was kept in a vault adjacent to the Taliesin drafting studio. Wright would often gift prints to apprentices at Christmas, as a bonus for putting in extra hours or doing an exceptional job on a

The Art of Synthesis

project, consequently John Howe was gifted many beautiful prints. Frank Lloyd Wright would lecture with great passion, analyzing and discussing the finer qualities of the prints.

He once said of a beloved Japanese landscape artist,

Hiroshige did with a sense of space, very much what we have been doing with it in our architecture.

Here you get a sense of tremendous, limitless space, instead of something confined within a picture...

This concept is illustrated in John Howe's work, in his design drawings, and in the framing of views in the interior of his buildings. He was a master at making small spaces functional and spacious and each of his designs is carefully integrated into the landscape. His interest in Japanese art and architecture is apparent in his drawings. He developed a unique, stylized method of rendering vegetation, inspired by Japanese prints, using a series of parallel lines to illustrate the integration of the building into the site. The integration and the relationship of the building to the landscape is a key principle of organic architecture and a primary consideration in Howe's work.

- 6 *Images on following pages:*
John Howe (center) with members
of the Taliesin Fellowship.
©Wikimedia Commons.

Fallingwater. Frank Lloyd Wright.
Mill Run, PA ©2005 Via Tsuji. Flickr
Creative Commons.

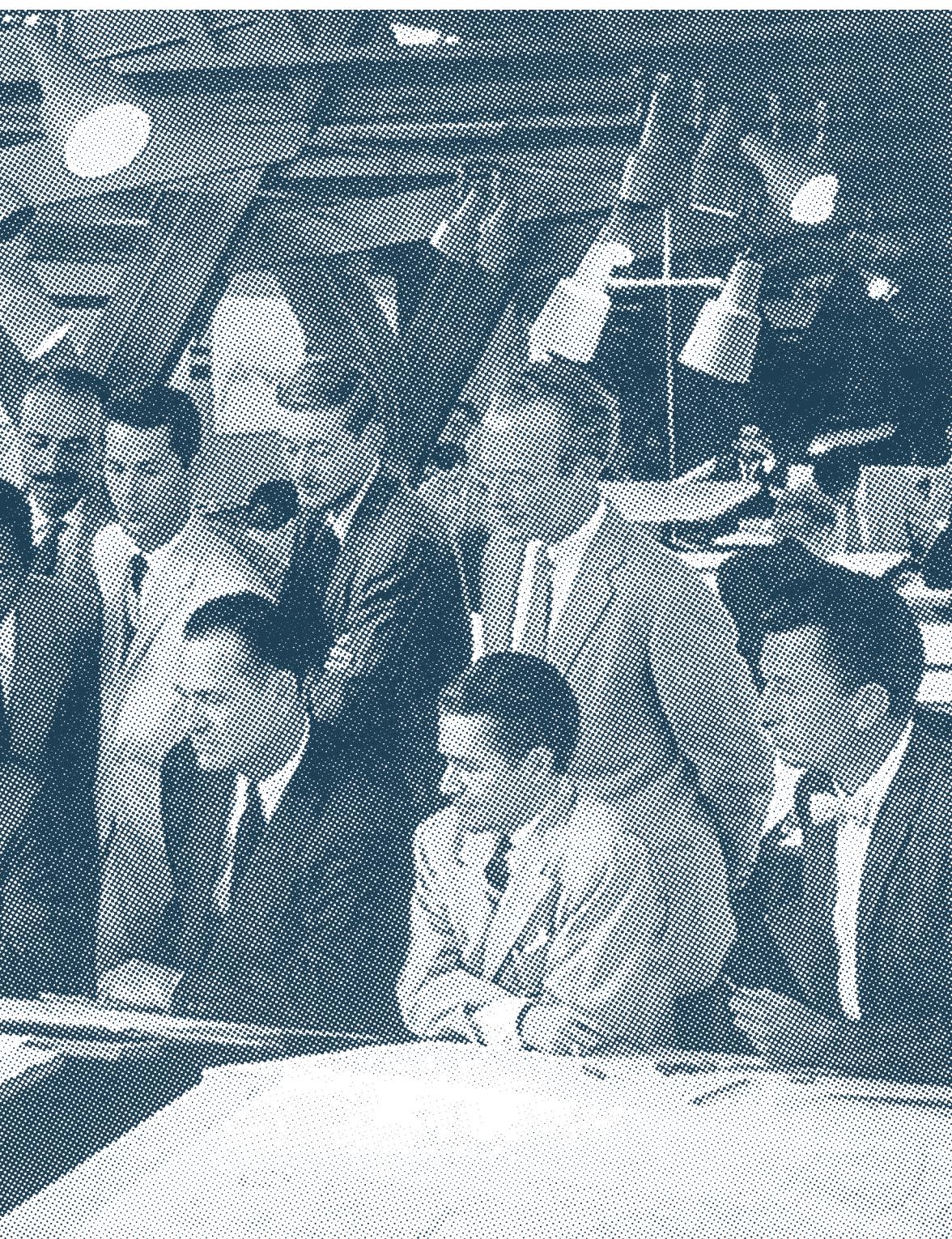
Mitsui Store at Surugacho in Edo.
Woodblock print. Hiroshige. 1831-
1834 ©2007 Nishimuraya Yohachi.
Flickr Creative Commons. Location:
San Diego Museum of Art.

Origins of Organic Architecture



Sudden Shower Over
Shin-hashi Bridge and Atake.
Woodblock print. Hiroshige.
1857. Public Domain. Location:
Tokyo Fuji Art Museum, Tokyo.



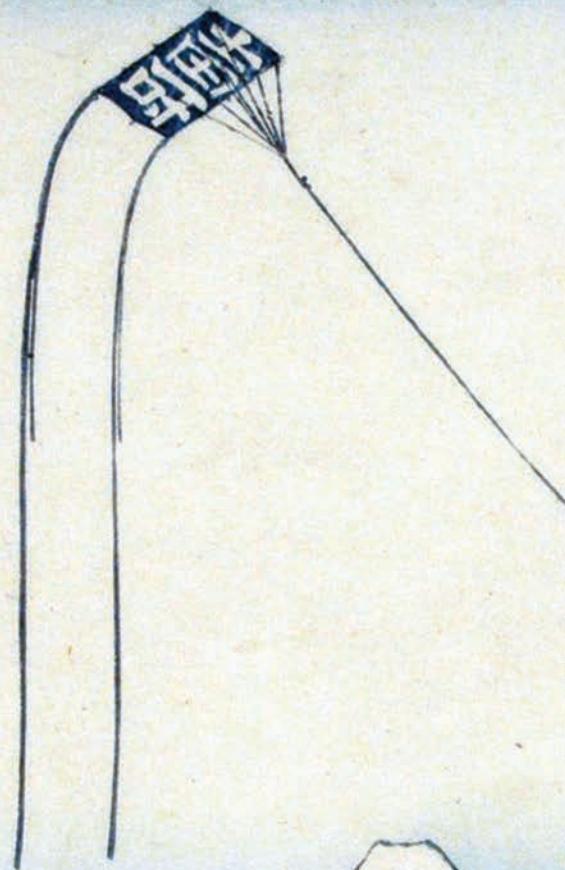






富嶽三十六景 江都屋河町
三井見事圖

赤坂舟為ノ年





現金
異版物



異版物

LIFE AND WORK AFTER FRANK LLOYD WRIGHT

In April of 1959, at the age of 91, Frank Lloyd Wright passed away while undergoing surgery in Phoenix, Arizona. John Howe continued to work at Taliesin for five years after Wright's death. He helped to complete projects that were in progress and started new commissions, running the Taliesin studio along with Wes Peters, Frank Lloyd Wright's engineer and son-in-law. Most of the senior apprentices stayed at Taliesin at this time. They completed projects that were initiated under Wright such as the Marin County Civic Center (1960) in San Raphael, California and the Guggenheim Museum in New York City. John Howe and Wes Peters, along with about ten senior apprentices eventually formed the group, the Taliesin Associated Architects.

In 1964, John Howe left Taliesin to join the San Francisco office of Aaron Green, the West Coast representative of the Frank Lloyd Wright Foundation. He intended to practice architecture in Santa Cruz, California, but was getting many requests for work in Minneapolis, Minnesota. Howe had designed three houses in the Twin Cities area while

The Art of Synthesis

he was at Taliesin and had an established relationship with a contractor in the area. It was at this time that John and his wife Lu first visited Japan. Staying for six weeks in the autumn of 1966, he lectured at several Tokyo universities. In August of 1967, he opened an office on Wayzata Boulevard in Minneapolis, establishing an architectural practice that was successful for 25 years.

John Howe was welcomed as a contributor to academia, though his education after high school was solely his apprenticeship and subsequent work with Wright. Soon after the move he served as an architectural consultant at Macalester College in St. Paul, Minnesota, working on a plan for a proposed library and learning resources center, as well as revising the Architecture curriculum. In 1975, he returned to Japan as visiting professor of architecture at Nihon University. When he returned to Minneapolis, Yoshiteru Kusaka, a young Japanese architect from Tokyo, came to work in his office for two years.

Origins of Organic Architecture



JOHN HOWE'S ORGANIC ARCHITECTURE

John Howe closely observed Frank Lloyd Wright's architectural ideal, which recognized the earth as the origin of successful design. He sought to create architecture that was for humanity, buildings that were comfortable, efficient and serene. He created buildings that were intentionally incorporated into their surroundings, structures that were intimately related to the earth. John Howe wanted buildings to be more than the sum of the whole, to seamlessly integrate the structural and the aesthetic. In the words of John Ruskin, "We want two things from our buildings: We want them to shelter us, and we want them to speak to us—to speak to us of whatever we find important and need to be reminded of."

Once he had visited a site and become familiar with it he created a design based upon the land and the needs of the people who would inhabit the space. Beginning with a topographical map, he would orient the building to the compass points and surrounding views. Keeping intact any beautiful trees and rocks, he considered the many features of the landscape: slope, vegetation and views.

The Art of Synthesis

When differentiating his work from his mentor's, John Howe explained that when Wright designed a building he would often have a number of ideas previously formed that he would bring to the design. In contrast, Howe began with the characteristics of the site as the basis of his designs, pragmatically observing the precept that "the land is the beginning of architecture".

John Howe's designs for public buildings were radically user centered. The designs are based upon the needs of the inhabitants, buildings consciously designed for human beings. He understood that one should treat the client well, not only because they were funding the project, but also because he depended upon them for information essential to a successful design. Each building was the result of hours of meetings and re-designs to address the needs of the client. He was proud that he had realized a number of inexpensive dwellings. The Menomonie Public library was built after an exhaustive number of meetings with the library board. The Church of Christ, Scientist was designed with extensive input from the church members. Each member of the church was assigned to be on a committee, and all the final design decisions were the result of unanimous consensus.

John Howe's designs are based in the principles of organic architecture, which grew out of the ideas of the Prairie School, a style most represented by Frank Lloyd Wright's designs for homes in the city of Chicago, Illinois. These designs frequently include long, horizontal forms, open spaces with multiple levels and a fireplace as a central element. Buildings were divided into zones that were based upon the intended function of the space. The shared areas of the house such as living and dining rooms, library, entry and

Origins of Organic Architecture

reception area were often delineated by a change in the height and construction of the ceiling. Walls were used to separate private portions of the house such as bathrooms, bedrooms and the kitchen. Terraces, balconies and roofed porches intentionally brought nature inside, by blurring the boundary between the structure and the outdoor environment.

This connection to the Prairie School can be observed in John Howe's deep reverence for the natural environment, and his admiration for Prairie School architects. After living and working in Minnesota for many years, John Howe discovered in his mid-career that he was a regional architect and adapted his philosophy accordingly. He observed that the Minnesota area called for a unique form of architecture. There could be no flat roofs, integration of passive solar was necessary, and each building must be designed to be comfortable through



Community House, First
Congregational Church, Eau Claire,
Wisconsin. ©Diana Witcher. 2013.

The Art of Synthesis

severe winters. About this Howe said, “I have developed a Minnesota Prairie School architecture... I also confess to following somewhat in the footsteps of Purcell and Elmslie who were here first and did wonderful work”.

John Howe designed buildings to exist in harmony with nature, finely crafted structures that had an almost spiritual affinity with their surroundings. In John Howe’s view, beauty and function are one, married to one another. He believed that architects should learn from nature and appreciate its beauty and tranquility, but should avoid imitating it too closely. Each design element is related, details are encompassed within an inclusive design, which is aligned with what he called the “essential nature of the concept”. In a 1975 lecture, Howe explained his deeper understanding of organic architecture.

“Organic” describes the functional and structural goal of the design. Each building is like an organism; all parts are seamlessly integrated and necessary to the whole like the branches of a tree. Wright called this “the divine principle within all things: their essence, or what might be called individuality or character.

Materials were an integral part of the original inspiration for John Howe’s building designs. He created structures that existed in practical harmony with the native climate. In line with the ideals of organic architecture and the Arts and Crafts movement, construction and building materials should be pure and true, without falseness or pretense, while ornamentation would be an integrated part of the whole, “as flowers on the tree”, an element more profound than surface decoration.

Origins of Organic Architecture



Blue Magpie on Maple Branch.
Woodblock print. Hiroshige,
1797 - 1858. ©Wikimedia Commons.

ORGANIC ARCHITECTURE AND ITS JAPANESE INFLUENCE

Elements of Japanese art and culture were a primary inspiration for John Howe. During his visit to Tokyo in October of 1966, he opened a lecture by saying, “Japan is a homeland of the spirit of beauty”, and defined Japanese and organic architecture as synonymous disciplines. He praised the merits of Japanese culture and emphasized its influence on Frank Lloyd Wright, proposing that Japanese art and architecture hold more meaning for many Americans than that of Europe and the Renaissance. “Many of us feel a closer kinship to Japan, which perhaps shows that cultural ties can be much stronger than those of race.”

This affinity for Japanese culture was in many ways an answer to the need many Western artists perceived for a model of simplicity of aesthetic and an ethic of purity of form. John Howe had an uncommon expertise in the discourse of traditional Western architecture and soundly rejected certain aspects of its designs. This was an important impetus in his philosophy. He created forms that were simple and functional,

The Art of Synthesis



naturally expressing their purpose, to shelter humanity. In his early writings, John Howe was adamant in his dislike for the decorative aspects of Western tradition.

In the past... all materials were carved, molded, or tortured into preconceived, meaningless, man-made forms. The materials only had value if changed significantly by man... Man's conceit and deceit often seem to have no limit where the forces of nature are concerned...

In contrast, Japanese architecture reveals an intrinsic simplicity of form, derived from an authentic integrity of structural order. Rather than hiding structural elements under layers of decorative features, they are revealed as essential components of the aesthetic of the building. These formal qualities are emulated in organic architecture.

26 *Temple of Concordia*. Valle dei Templi. 430 B.C. Agrigento, Sicily.
©Guido Radig 2013. Wikimedia Commons.

John Howe admired the use of natural materials in Japanese buildings and sought to bring a similar sense of simplicity and unity in his designs. Like traditional Japanese architects, he used natural materials such as stone, wood and canvas but also included materials like brick, steel, wood fiber and concrete as necessary components of a modern building. Howe believed that adherence to the principles of organic architecture results in buildings that display qualities of integrity, unity and synthesis. Both John Howe and Frank Lloyd Wright looked to Japanese art and architecture to serve as a model of this type of deep understanding and integration with the natural environment.

John Howe had great reverence for ancient architectural forms and looked to the past for models for new and relevant designs. He observed that ancient buildings were intimately related to the surrounding environment, the use of the building, and the circumstances that gave rise to each structure. A nuanced historical sense of place led him to believe that the greatest architecture in history was in its essence organic architecture. These ancient buildings revealed the principles Howe sought to emulate. He asserted that Wright was successful in re-discovering and re-defining these qualities under the name organic architecture. For thousands of years, Western culture considered beauty in architecture to be emulated by Classical building, promoting an aesthetic of symmetry, decorated columns, and repeated ratios. Adherence to the standard and repeating the same formula was rewarded over any tendency toward originality. Creating new forms within the context of organic architecture was a primary focus for Howe. He utilized the forms and motifs of organic architecture to achieve this end.





A SYSTEM OF UNITS

Both Japanese and Western building traditions use systems of proportion that are employed in distinctive ways. Organic architecture combines these two traditions and creates new, groundbreaking forms by embracing structure rather than rejecting it. Author György Dóczki asserts that though Eastern and Western architecture are fundamentally different, they share a human origin and manifest a quality of unity in the patterns and structures that comprise architectural forms. Application of a system of units is found in the roots of Western architecture, beginning in the first century B.C.. The Latin *modulus*, or “little measure” was a basic unit that informed dimensions in Greco-Roman construction.

Likewise, an underlying system of units is the basis of all structures in traditional Japanese buildings. Author György Dóczki explains that this observance of a system of proportion arises from a principle of patterns that infuses all of Japanese culture. The Japanese *ken* is a universal measure for building that is based upon human proportion, roughly 3 x 6 feet,

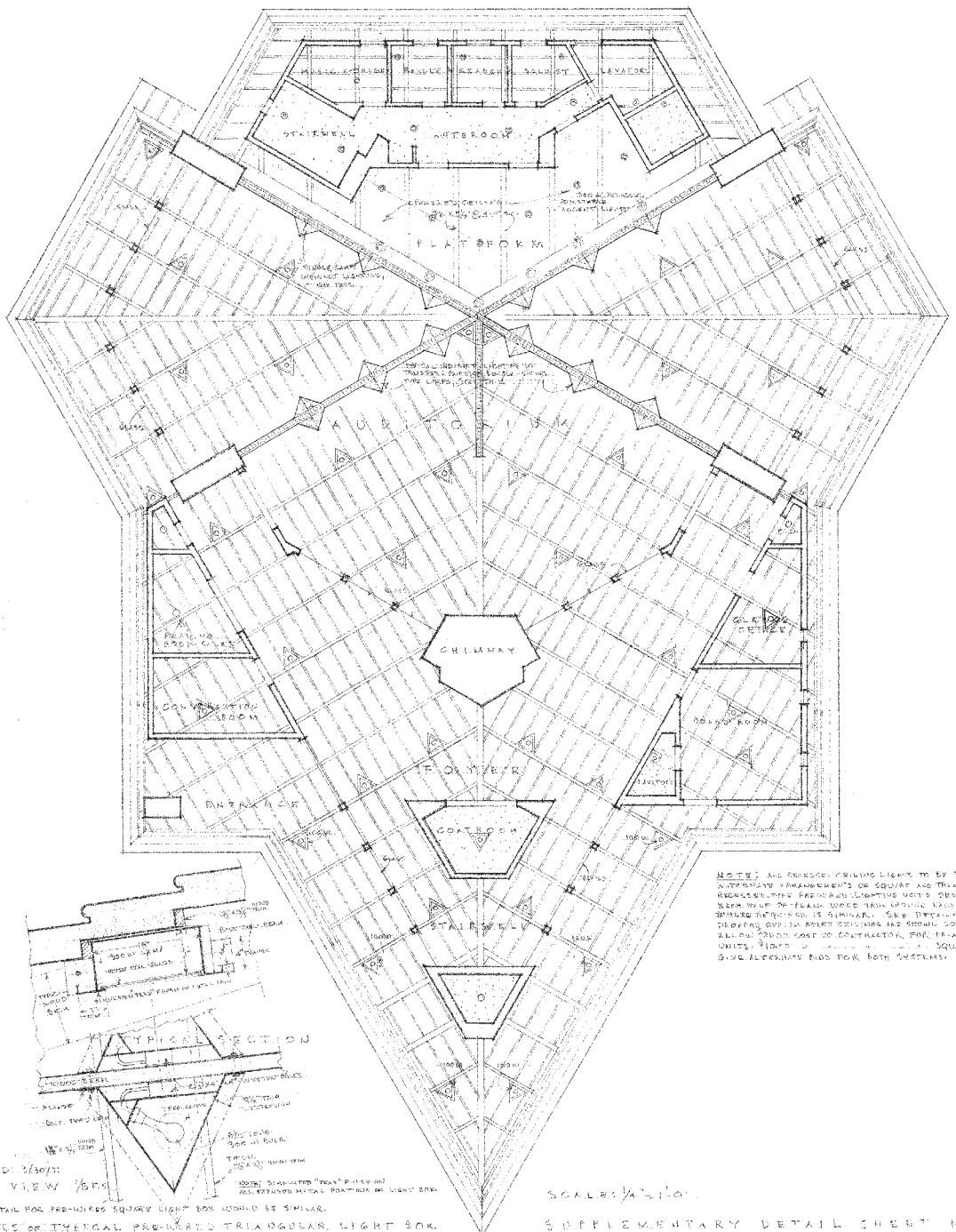
The Art of Synthesis

which became a standard measure for a Tatami (rice straw) mat, traditionally used as multi-functional floor covering. Author Heinrich Engel in *The Japanese House* asserts that this standardized system of units has a counterintuitive effect. By limiting choices, a system of units invites elements of freedom and interrelation to a design. This concept is integral to organic architecture, which depends upon geometric patterns as a basis of structural design.

John Howe's designs are based upon geometric patterns that provide a basis for each spatial relationship in a building. Authors Koning and Eisenberg define this as a more complex and fundamental structure than a simple a grid or pattern of proportion. Howe's designs for the Menomonie Public Library and the First Church of Christ, Scientist are each based upon unique, yet visually similar, networks of lines that are suggestive of tree branches, or perhaps molecular structure. Based upon natural geometry and repetition, the building's elements 'grow' from this structure. Analysis of the design drawings for the two buildings reveals both their structural similarity and the unit-based system that informs the proportion and formal elements of each design. This structure brings order and aesthetic unity in the space. Architect Geoffrey Childs explains the concept thus:

Geometry is the way that Nature explains herself to us. The leaf form is the result and not the cause of this form generation. The plan has the underlining geometry in the big and the small. Thereby producing variety and unity at the same time.
By some definition that is beauty.

32 *Ceiling Plan, Church of Christ, Scientist.* John Howe. Pencil on paper. John H. Howe Papers (N14). ©University of Minnesota, Northwest Architectural Archives.



REVISED 1/3/89
TECH. REVIEW 1/6/89

DETERMINE SIGHT DISTANCE FOR 100% OF THE 1000' LONG LIGHT BOX.

SOCIAL SECURITY

SUPPLEMENTARY DETAIL SHEET No. 1

卷之三十一

JOHN HOWE'S PUBLIC BUILDINGS

John Howe's designs for the Menomonie Public Library, in Menomonie, Wisconsin and the Church of Christ, Scientist in New Brighton, Minnesota are examples of his work that emulate his unique design style. Elements of organic architecture included in both designs are open plans, unique treatment of space, blurring of the inside and outside to integrate each building into its landscape.

Each building was a unique opportunity to create a public space that would serve an entire community, and function to house spaces of learning or worship. John Howe carefully considered this when formulating the designs. The buildings share a unique geometric shape and a floor plan based upon geometric units that defines and organizes the space. Each building was realized through a unique set of circumstances that had a lasting impact upon of the final design.

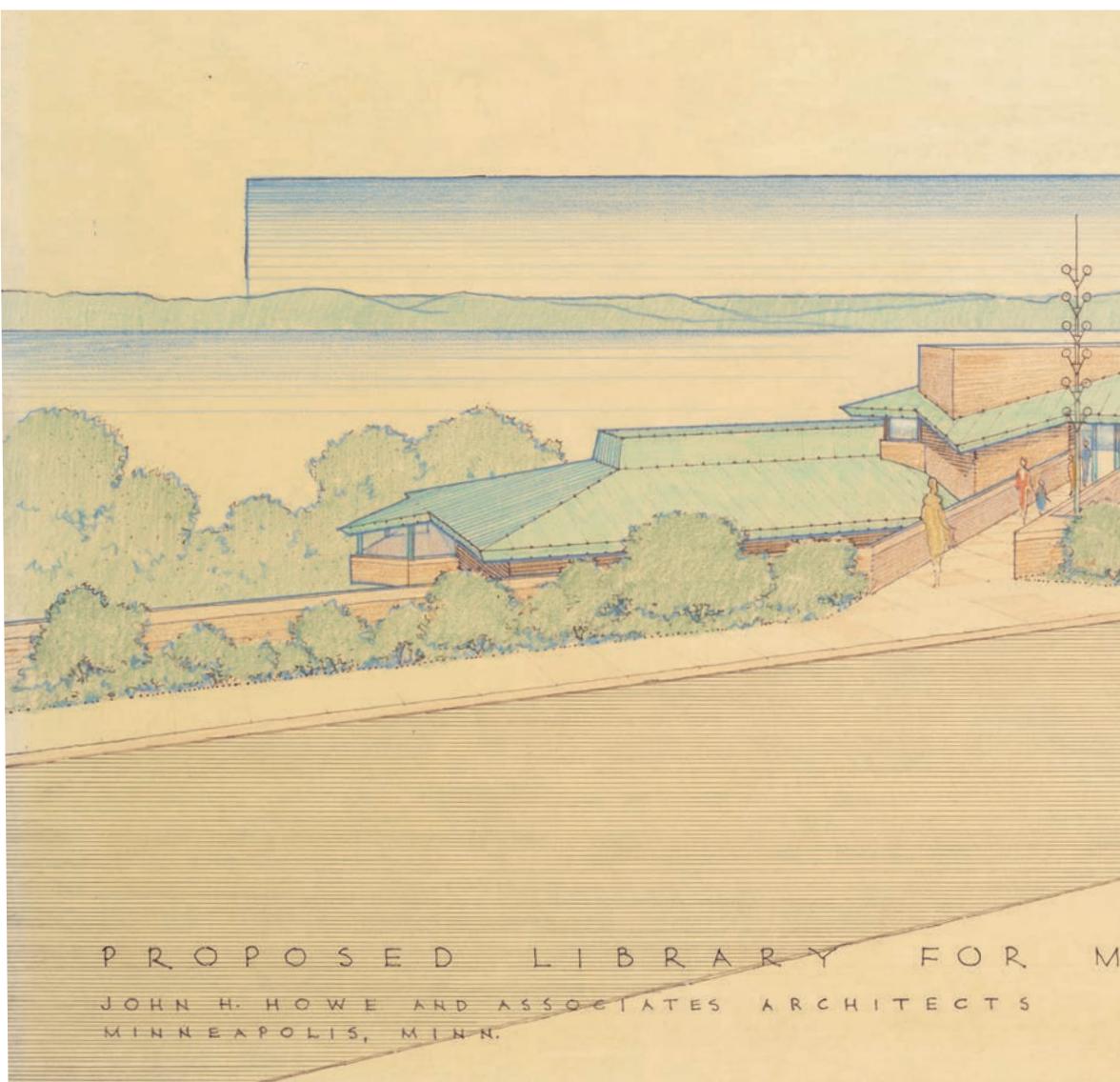
MENOMONIE PUBLIC LIBRARY

While the Menomonie Public Library is a compelling example of John Howe's architectural method, the most revealing aspect of the library's architecture may be the design process that lead to its realization. Plans for the new library in Menomonie, Wisconsin were considered for nearly ten years before the building was finally realized. Its realization was stalled by political, financial and practical challenges.

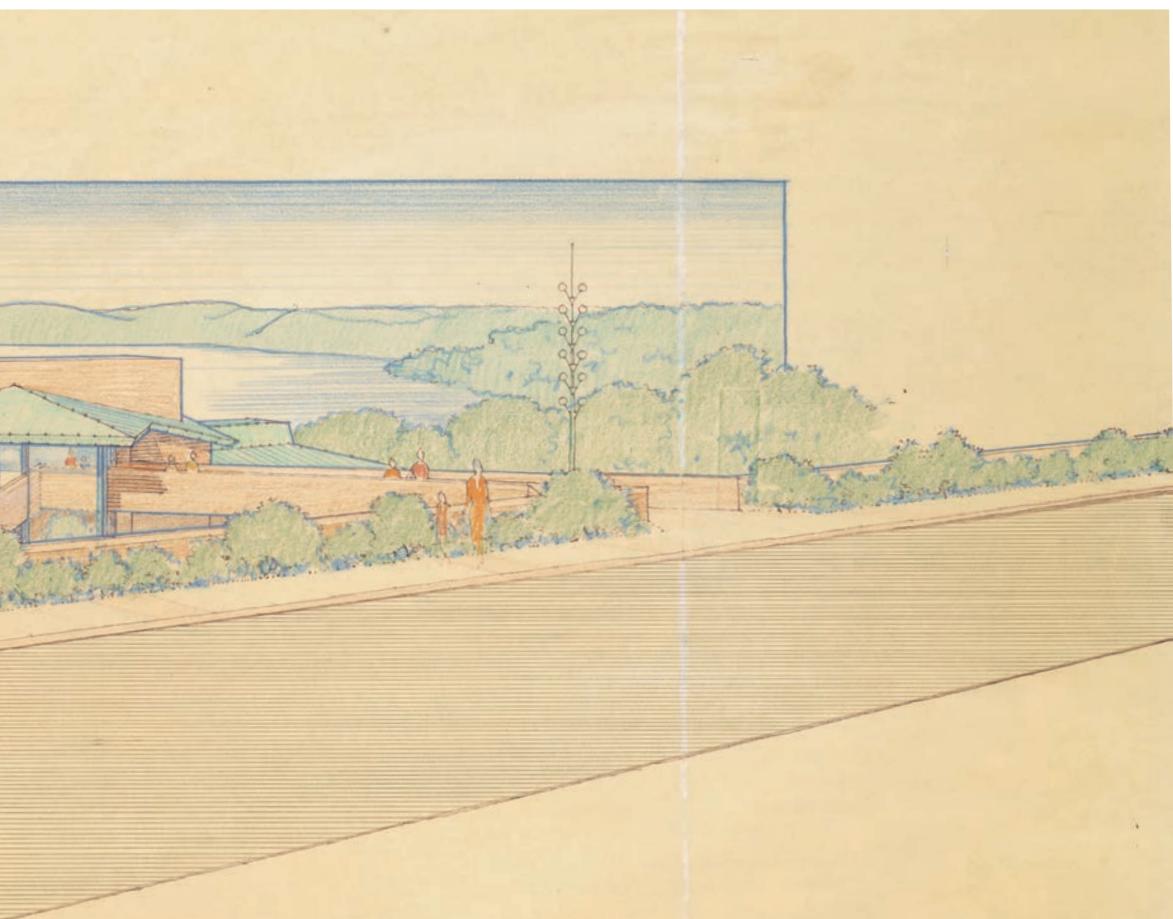
There was a great deal of interest in the community in locating the library downtown. Like Frank Lloyd Wright, John Howe did not generally participate in design competitions. Community members Bob and Jan Willow commissioned him to created a series preliminary drawings for a downtown library. His first design was for a narrow shoreline plot in the downtown area. The overall impression these preliminary drawings invoke are that of organic and Japanese influence, married with futuristic idealism. The horizontal, hipped roof line mirrors the shape of distant hills, while three central flat rooftops mirror those of the downtown buildings nearby. The drawings call for a street

Images on following pages:
Menomonie Public Library:
View from the Southwest. John H.
Howe. 1981. Colored pencil on
blueline. John H. Howe Papers
(N14). ©University of Minnesota,
Northwest Architectural Archives.

Menomonie Public Library I,
Section View. John H. Howe.
1981. Pencil and ink on paper.
John H. Howe Papers (N14).
©University of Minnesota,
Northwest Architectural Archives.



PROPOSED LIBRARY FOR M
JOHN H. HOWE AND ASSOCIATES ARCHITECTS
MINNEAPOLIS, MINN.



E N O M O N I E , W I S C O N S I N

BAKKE, KOPP, BALLOU, AND MC FARLIN, INC.
STRUCTURAL ENGINEERS, MINNEAPOLIS, MINN.

COMMUNITY ROOM SKYLIGHTS
AT ELEV. 815'-6"

ROOF TRUSSES

LIBRARY

8'-0"

12'-0"

CANTILEVERED PRECAST CONC.

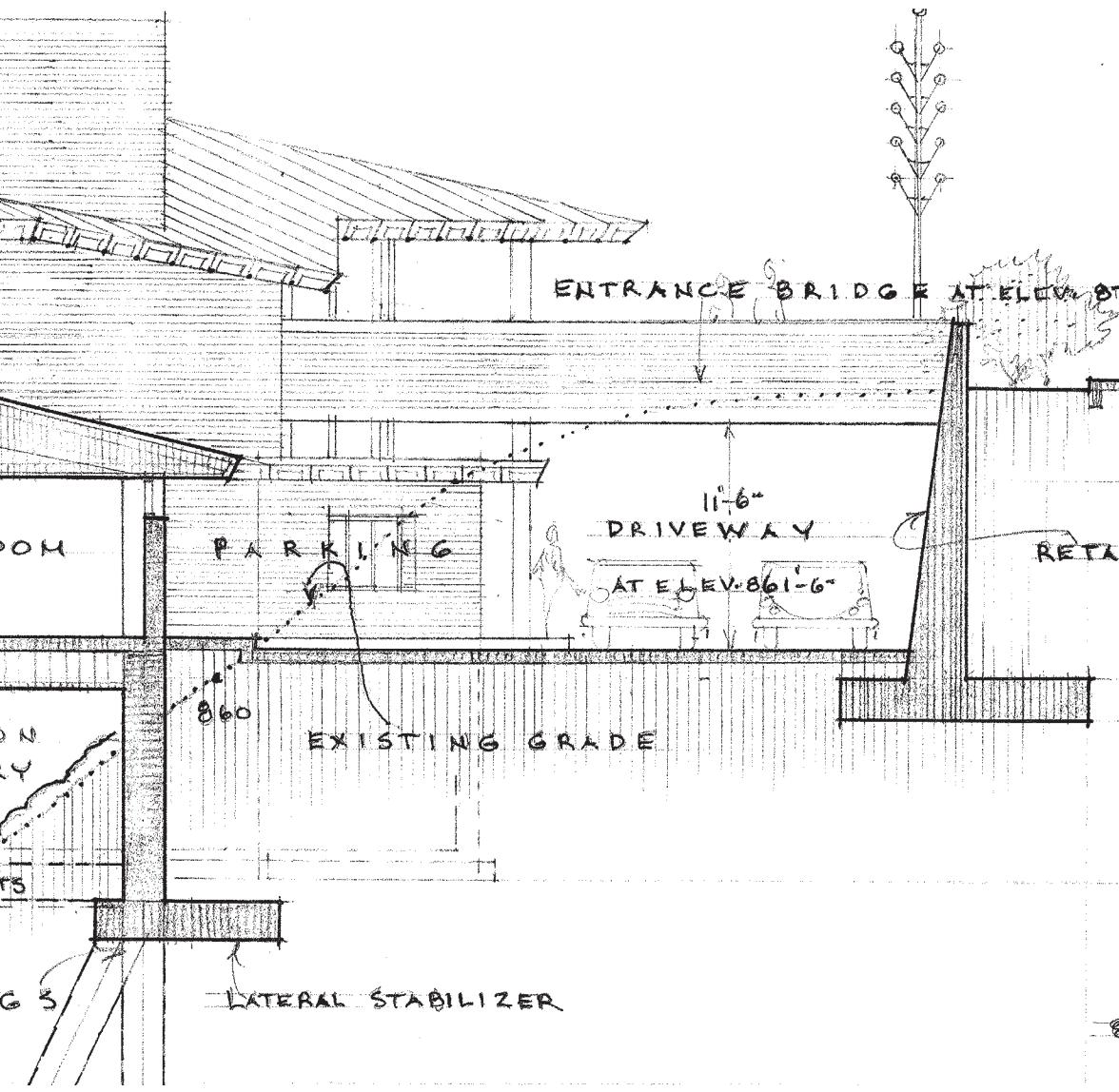
FIREPROOF CEILING

FLOOR FOR FUTURE EXPANSION
OR POSSIBLE COUNTY LIBRARY
ADMINISTRATION

PRECAST CONC. STRUCTURE

850

PRECAST CONCRETE PILING



The Art of Synthesis

level entrance featuring two diagonal sidewalk bridges and a lower level driveway, concealed by a retaining wall. The library was to be cantilevered over the hillside. The form of the building was horizontal in shape, yet stacked vertically on the hillside. A series of windows would offer views of the lake and circular skylights would bring light to the interior. The building was to be supported by precast concrete pilings, the overall form reminiscent of the trees that would surround the building. It is a truly forward-looking design. Despite, or perhaps because of its dramatic and visionary nature, this plan was later rejected in favor of a larger site.

A number of community members fought to preserve a downtown location for the library, consequently it took nearly nine years to complete the building. In June of 1982, a petition was circulated protesting the construction of the new library. In October of the same year, the library board was served with an injunction prohibiting them from proceeding with planning. In 1985, the plan for the new library finally gained the necessary momentum for completion. Needed funding was supplied by a 125,000 LSA Title II grant from the Department of Public Instruction as well as additional funds from the City of Menomonie. All aspects of the plan for the library had finally gained approval and construction of the building soon commenced.

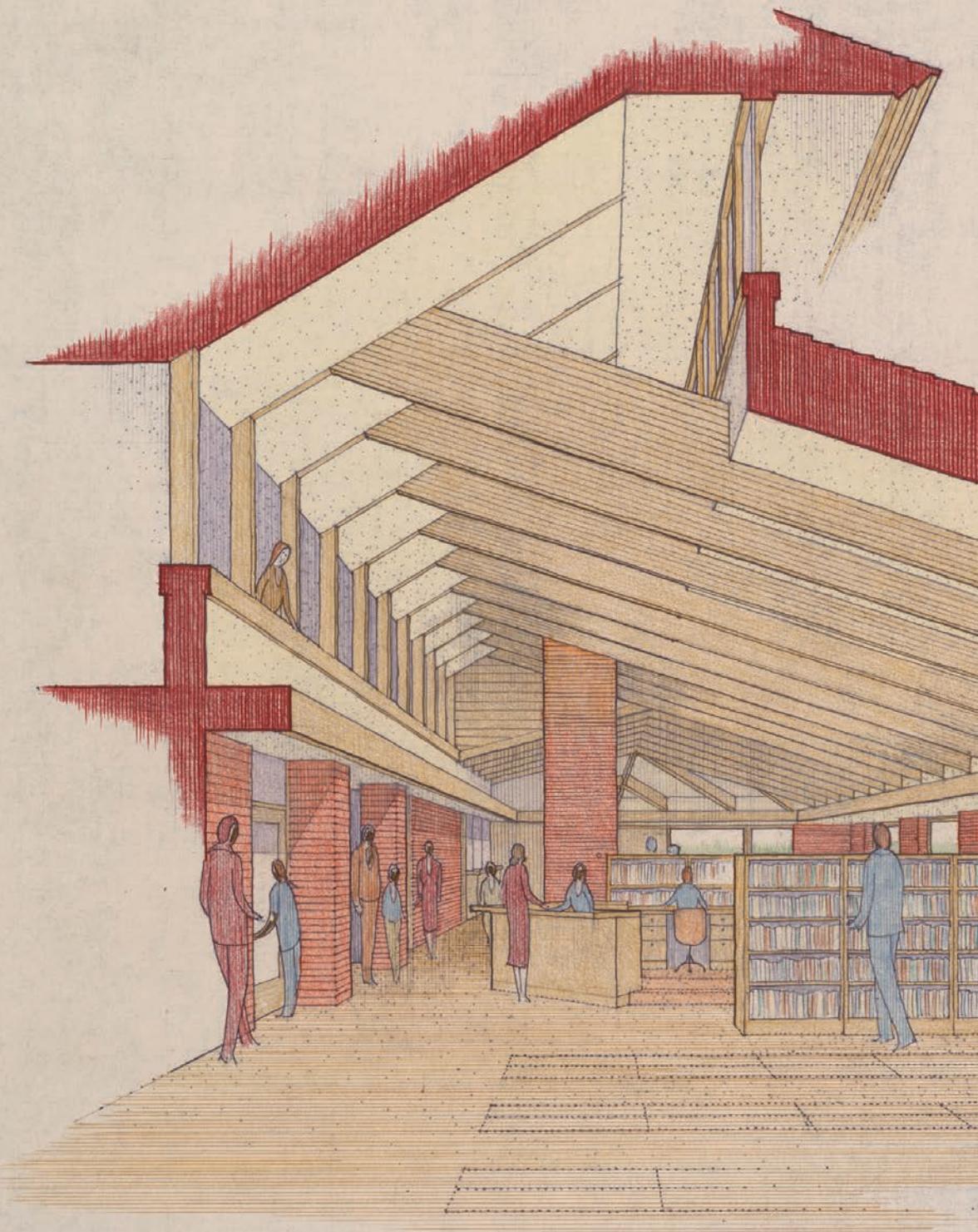
The new site for the library is located just across the lake from the downtown. Mr. Howe's preliminary design called for another forward-looking plan. The building was to be earth sheltered and roughly triangular in shape, the south and east sides dominated by windows. A series of triangular skylights would bring light into the interior and a 180-foot entrance hall would house an art gallery. A future addition would create

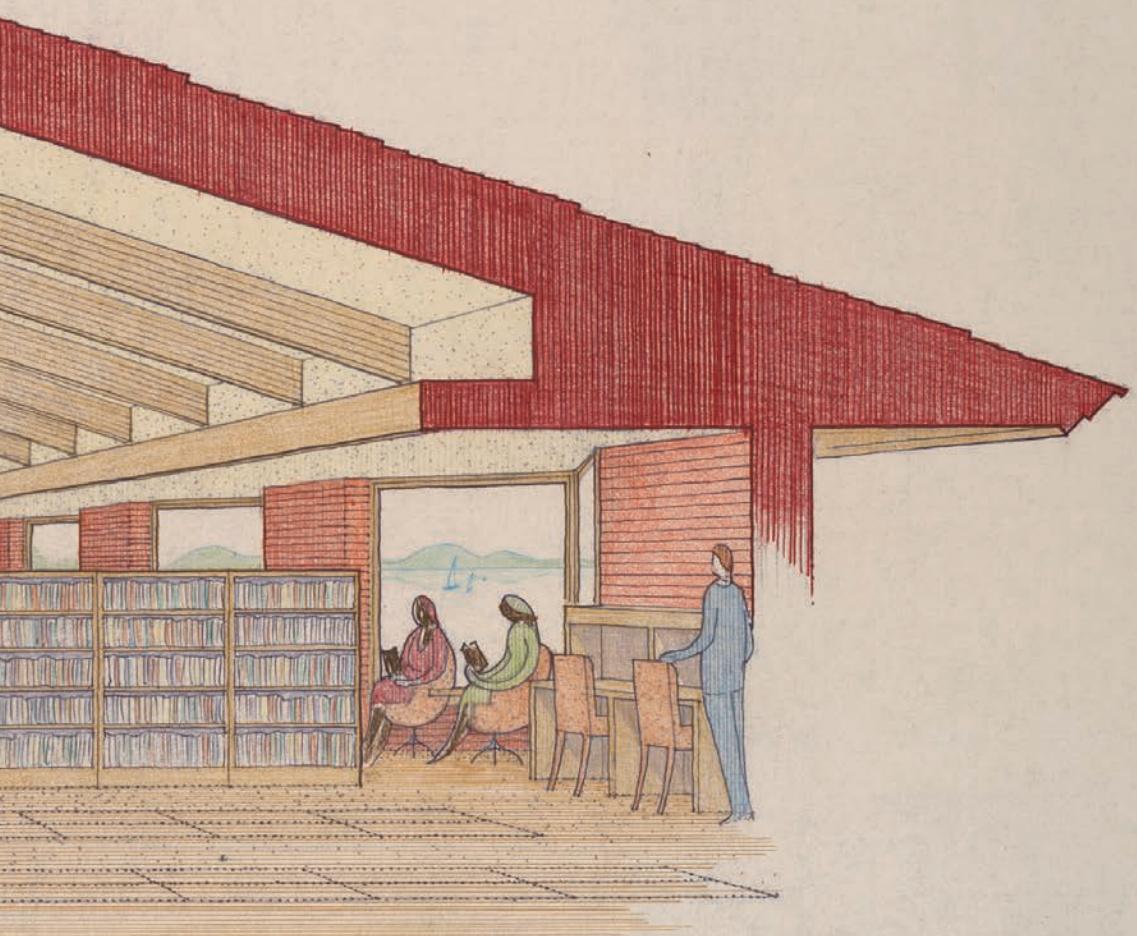
- 42 *Images on following pages:*
Menomonie Public Library II:
Interior Perspective. John H. Howe.
Colored pencil on blueline.
John H. Howe Papers (N14).
©University of Minnesota,
Northwest Architectural Archives.
- Menomonie Public Library II:*
Floor Plan. John H. Howe. 1981.
Pencil and ink on paper. John H.
Howe Papers (N14). ©University
of Minnesota, Northwest
Architectural Archives.

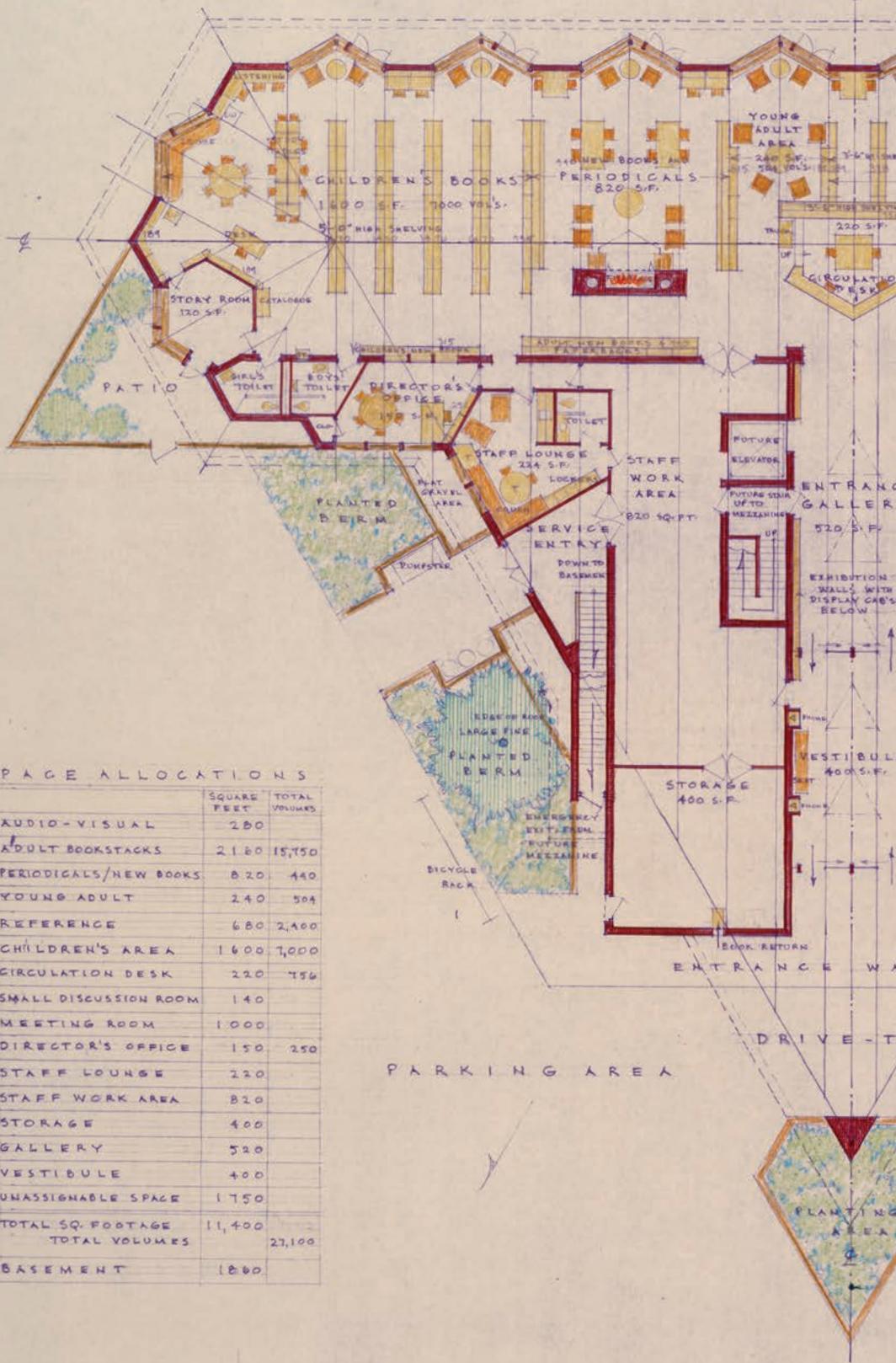
a mezzanine, a half story including clerestory windows. In keeping with organic architecture, John Howe created objects that were integrated into the architecture of a building, including stained glass, the reception desks, built-in cabinets and light fixtures. He used very limited ornament in his buildings; often limiting architectural ornamentation to perforated or hinged boards around the soffits, a feature seen in the Menomonie Public Library. These characteristics of simplicity and integration are illustrated in the series of design drawings leading to its completion. These designs expressed John Howe's vision for a remarkable building and were an answer to the specific requirements of two sites and strong community input.

The final design was a compromise between Howe's ideals and the budget and pragmatic requirements brought by the client. It maintains some of the original structure, but the building folds in upon itself, a triangle becomes a pentagon and the building has an even more open and compact plan. Despite a series of significant changes by the client, in the end Howe created a space that is beautiful, unique and functional.

The Menomonie Public Library rests on the shore of Lake Menomin in about an hour east of Minneapolis, Minnesota. The 1986 building has a embodies both subtle strength and confident simplicity. Intentionally integrated into the landscape, it is oriented to face away from the road and parking area, toward the lake. A low sheltering roof houses a covered entrance in the north. The silhouette of the structure mirrors the shape of distant hills and brick exterior walls recall the color of the local limestone bedrock. Its form hugs the lake shore and is partially concealed by earthen berms and landscaping. A series of windows on the east and south integrate views of the lake and collect passive solar energy.



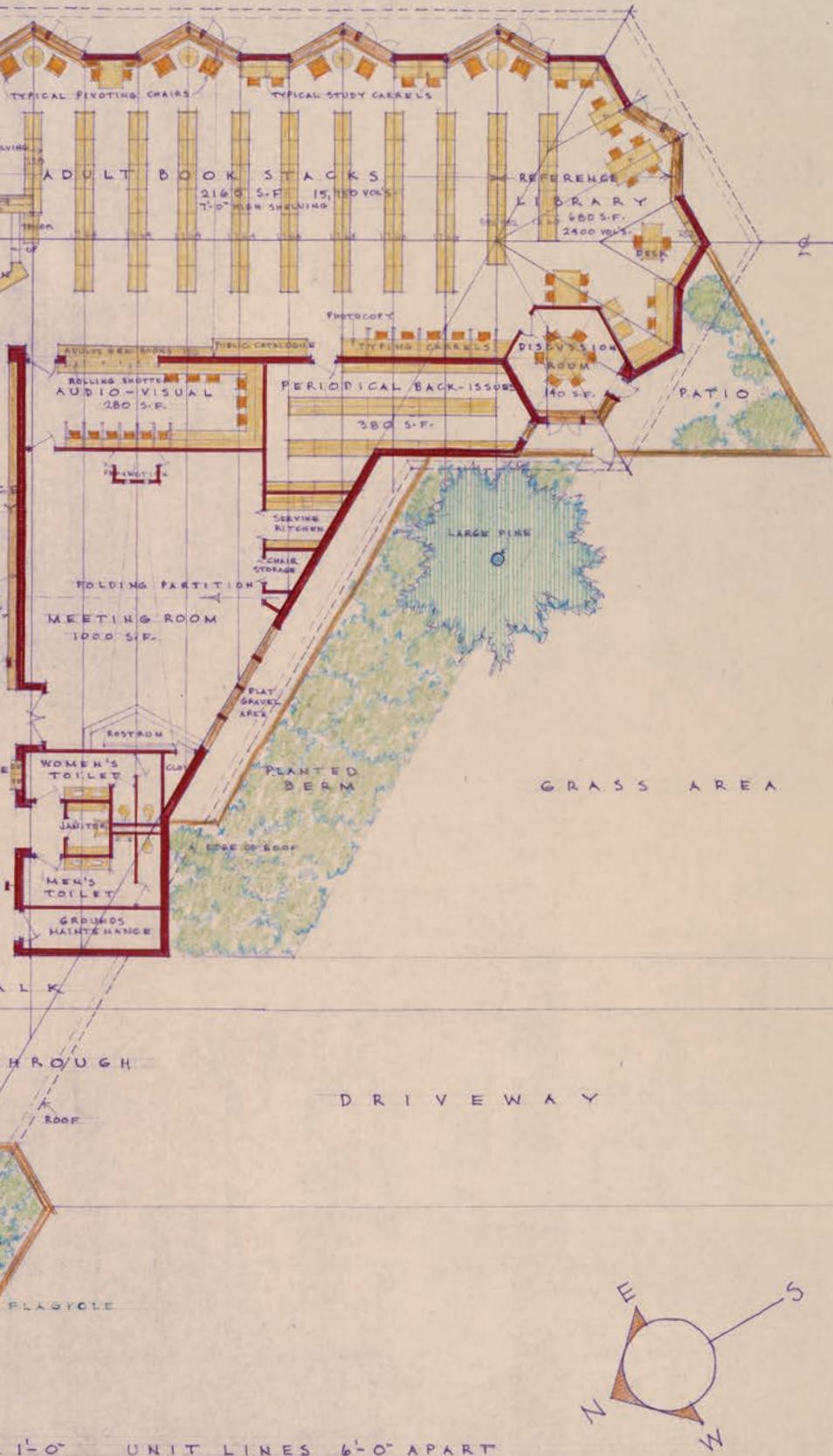




JULY 29, 1981

FLOOR PLAN

SCALE: 1/8"



The Art of Synthesis

The visual center of the library is an embellished ceiling which houses the circulation and information desk. As a focal point, it is a visual cue to the function of the space, which welcomes visitors and is the most active part of the library. The pentagonal configuration is back-lit and functions as stained glass. The structure is reminiscent of the ceiling in the living room of the Coonley House (1908) by Frank Lloyd Wright, located in Riverside, Illinois. The radial form is similar, as are the secondary crosspieces. Howe's design has more symmetry and a more conventional treatment of negative space. His version is also functional, providing light to the room below.

The form contains five inner triangles, which hold seven vertical pieces of translucent glazing and brings an openness and elegance to the center of the library and helps to dissolve



48 Avery Coonley House
(1908). Frank Lloyd Wright.
Riverside, Illinois.
©Library of Congress.

Menomonie Public Library.
1985. Menomonie, Wisconsin.
©Diana Witcher. 2013.

Origins of Organic Architecture



The Art of Synthesis

the solidity of the ceiling, inviting light and naturally inspired geometric elements into the center of the space.

In the tradition of organic architecture, transitions in the ceiling delineate areas of function within the building. The central information area houses the most activity. The spaces that hold the library materials have ten-foot high ceilings, with long vertical lines of fluorescent light and acoustical tile; these aspects encourage movement. The reading areas on the perimeter of the building are situated near the windows. A lower eight-foot ceiling made of cedar designates them as areas of quiet and repose. The combination of lowered ceilings and natural light from the windows creates a feeling of stillness and intimacy. In this perimeter there is a series of tables and chairs, centered on windows that create cozy semi-private areas to read and research. The building has a sense of dignity and tranquility. It is remarkable how quiet it is in the back of the library. There is no noticeable noise from the street and one can concentrate on work or enjoy the beautiful view of the lake.

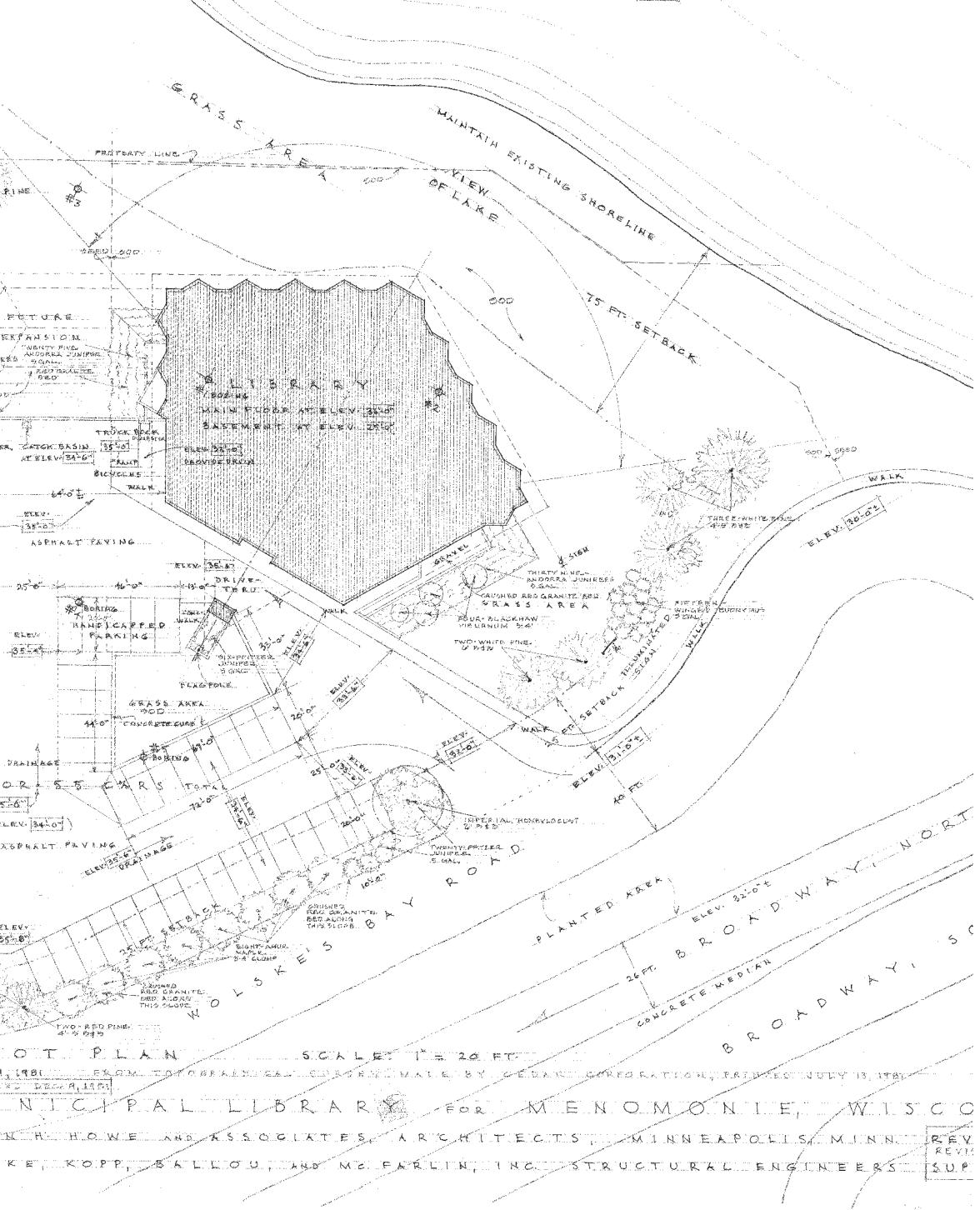
John Howe paid particular attention to the choice of appropriate and elegant materials in the library design. The partitions on the library's interior walls are steel framed and finished with red oak paneling, a tree that is native to Northern Wisconsin. The lower, eight-foot ceilings are made of cedar, another tree that is common in the area. The building is lit with recessed fluorescent lights, certainly chosen for economy and energy efficiency. The bookshelves, carrels, tables and chairs are red oak. The materials are both appropriate for the use of the building and intimately related to its larger environment.

Examination of the design drawings for the library reveals John Howe's design method in action. The most preliminary

50 *Menomonie Public Library II: Site Plan*. John H. Howe. 1981. Pencil and ink on paper. John H. Howe Papers (N14). ©University of Minnesota, Northwest Architectural Archives.

L A K E M E N O M I N

HIGH WATER AT ELEV. 13-6°



The Art of Synthesis



52 Menomonie Public Library,
Children's Area. 1985. Menomonie,
Wisconsin. ©Diana Witcher. 2013.

drawings consist of a matrix of pen and pencil lines that sit atop a standard grid oriented to the compass. Further drawings flesh out the form of the building. Each of the elements, the rooms, walls, windows, interior pilings, bookshelves and furniture all fit within the matrix defined by Howe.

The library dedication was held on September 21, 1986. John Howe and public library board president Dwight Agnew attended. First Lady Barbara Bush presided over the ceremony; at the time Mrs. Bush was working on a campaign to eradicate illiteracy. A group of fifteen to twenty community members who opposed the library picketed the dedication, but the event was well attended. At the dedication Howe said,

I won't say much... The library says what I have to say. ... Within these walls the citizens of Menomonie will discover new horizons. For as we know, there is no frigate like a book to take you miles away. The library offers limitless expansion and growth.

The building could easily be overlooked it is so well integrated into the shoreline, but upon even perfunctory observation, some truly remarkable details emerge. It is marvelous how such a complex design has created a building that belies that very complexity. The space is well ordered and quiet. It is humble in its simplicity, but spacious and airy. The building is an expression of Howe's architectural ethic and displays the characteristics of an organic building. Its nature is functional; it is built upon a system of units and uses affordable, appropriate materials. It is in line with the needs and requirements of its patrons, and is a unique work of art.

Following images:
Ceiling, Menomonie Public Library.
1985. Menomonie, Wisconsin.
©Diana Witcher. 2013.

*Menomonie Public Library,
View from the Southwest.
1985. Menomonie, Wisconsin.
©Diana Witcher. 2013.*







LIBRARY



FIRST CHURCH OF CHRIST, SCIENTIST

The First Church of Christ, Scientist shares a number of characteristics with the Menomonie Public Library, but reveals a more complex and groundbreaking design. The building was completed in 1972 and is located on the shore of Pike Lake on in New Brighton, Minnesota. A dramatically planar roof provides overhanging eaves, creating a sense of shelter. The building has a central chimney supported by a theatrical metal frame structure, painted a soft brown. Two large trusses, rise from four great brick piers. Cross trusses create triangular windows allowing for indirect lighting. The church has a unique geometric form, a seven-pointed star. The number seven refers to a cornerstone of the denomination's faith, the seven synonyms for God: Mind, Spirit, Soul, Principle, Life, Truth, and Love. The building is earth sheltered and has two levels of south windows. Howe wanted to create a harmonious environment through the use of warm-toned materials: red cedar and brown brick on the exterior and red oak and corresponding red cedar and brown brick inside.

The Art of Synthesis

The entrance to the church features a built-in sitting area and fireplace to the north, welcoming visitors. The central meeting area is both spacious and intimate. Intended to house 140 people, three groups of four pews face a central platform and lectern, covered in red oak paneling. Dramatic red cedar beams rise to a vaulted ceiling, rising in a complex geometric pattern of wood and white fiber paneling, which culminates in dual lines of triangular windows. A set of rectangular picture windows, framed in cedar, are located on each side of the lectern. This is perhaps the feature most reminiscent of Japanese architecture and is seamlessly integrated into the overall design. The windows invite nature inside and illuminate the interior. Triangular red oak light fixtures hug the beams. A number of triangular lights, trimmed in red cedar, are distributed throughout the building and function as small skylights adding dynamic continuity to the design.

This building reflects John Howe's architectural ethic and his mastery of integrating structural and functional elements into a design. The church may be placed in context of organic architecture by noting similar elements in earlier Prairie School buildings. The use of white panels framed with darker wood is a common occurrence in this style. This feature can be observed in Purcell and Elmslie's 1914 Community House for the First Congregational Church, in Eau Claire, Wisconsin. A possible beginning for the interior framework of the Church of Christ Scientist may be found in the interior of the Western Springs Congregational Church in Western Springs, Illinois, designed in 1928 by Purcell & Feick. The exposed ceiling supports have similar structure, function and negative space, though Howe's design is more radial, abstract and modern. These similarities are not

60 Western Springs Congregational Church. Western Springs, Illinois. 1928. Purcell & Feick.
©LaGrange Sun-Times.

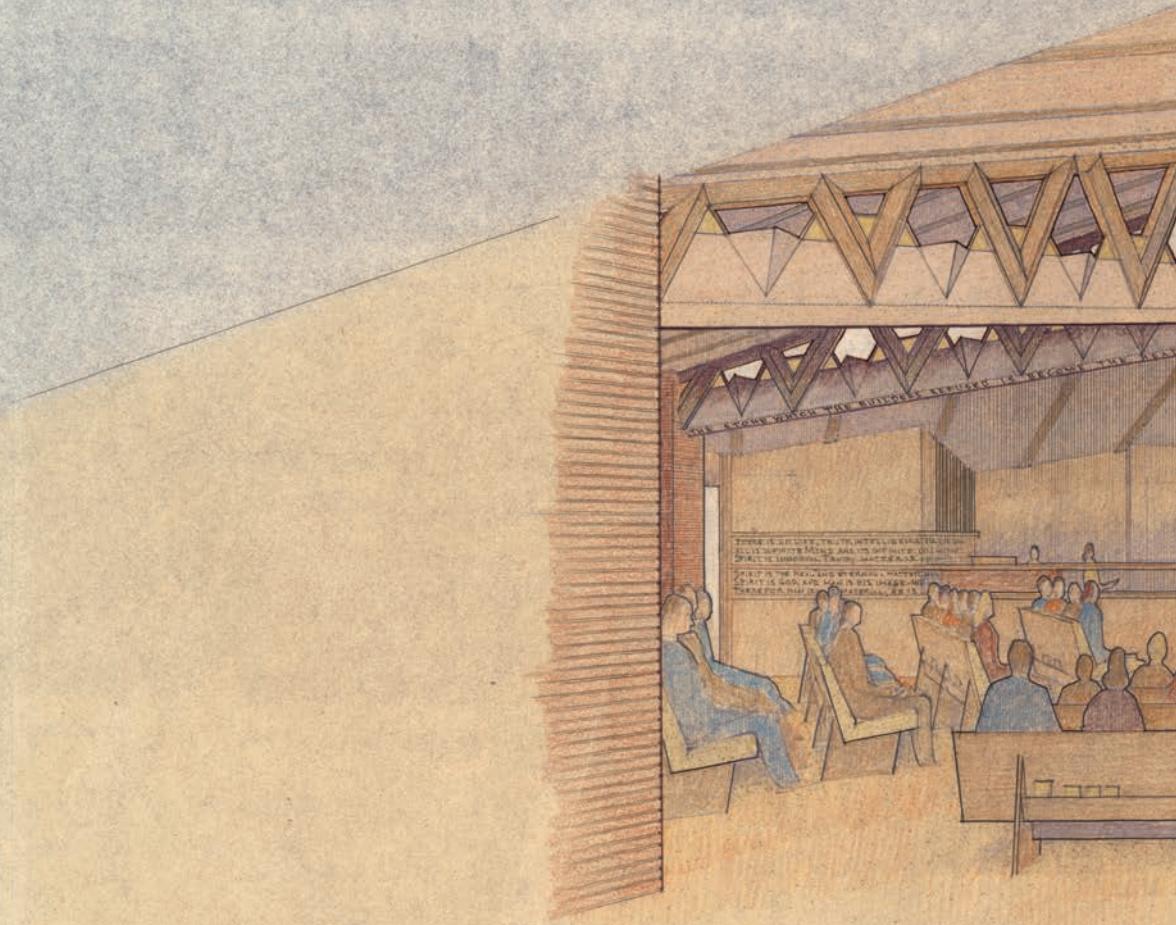
La Villa Savoye, Poissy, Yvelines, France. 1928-1931. Le Corbusier.
©2008 Pierre Jeanneret.
Wikimedia Commons.

Origins of Organic Architecture



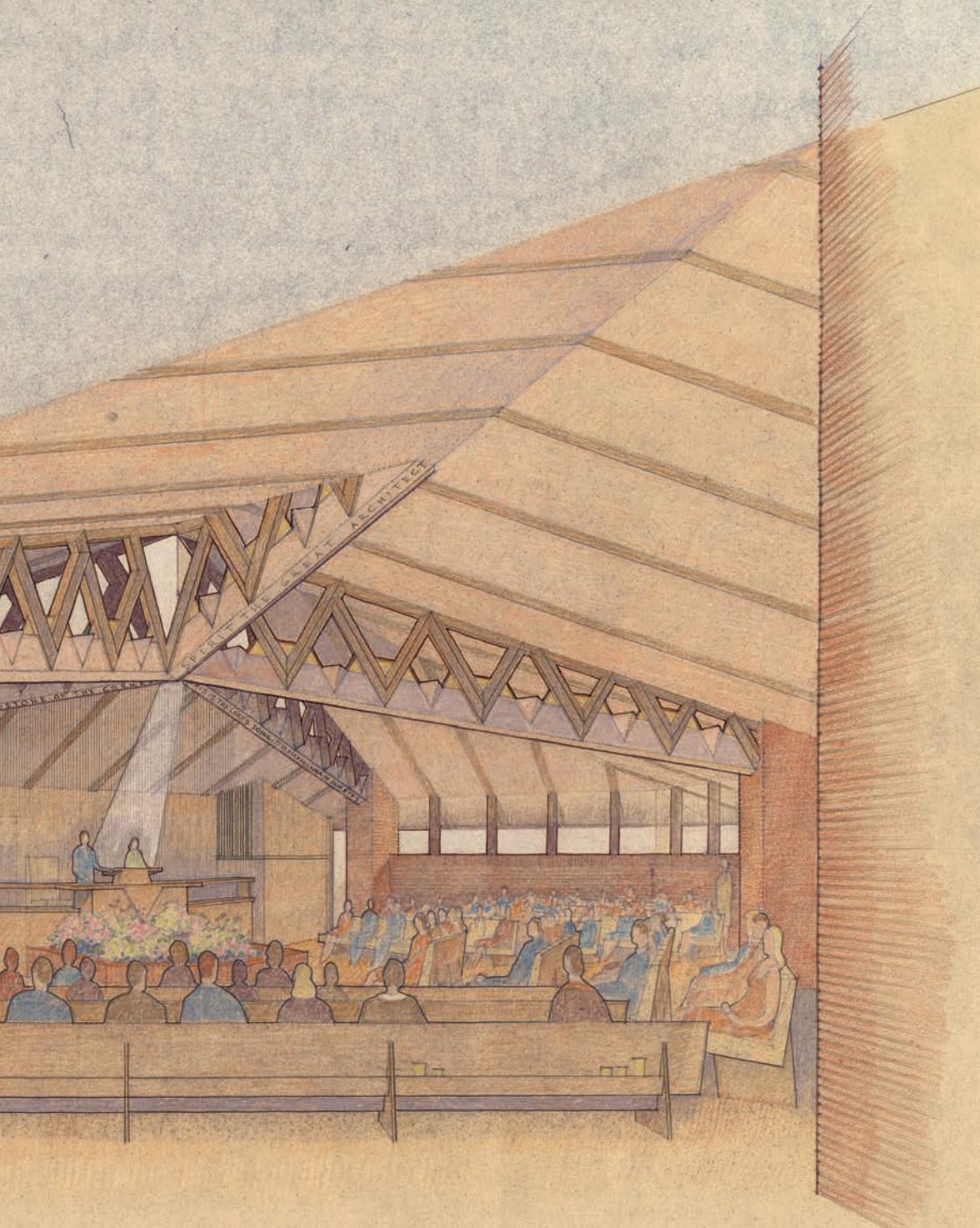
Image on following pages:
First Church of Christ Scientist,
Interior Perspective. John H. Howe.
1981. Pencil and ink on paper.
John H. Howe Papers (N14).
University of Minnesota,
Northwest Architectural Archives.

First Church of Christ Scientist,
Plan of Main Floor. John H. Howe.
1981. Pencil and ink on paper.
John H. Howe Papers (N14).
University of Minnesota,
Northwest Architectural Archives.



FIRST CHURCH OF CHRIST

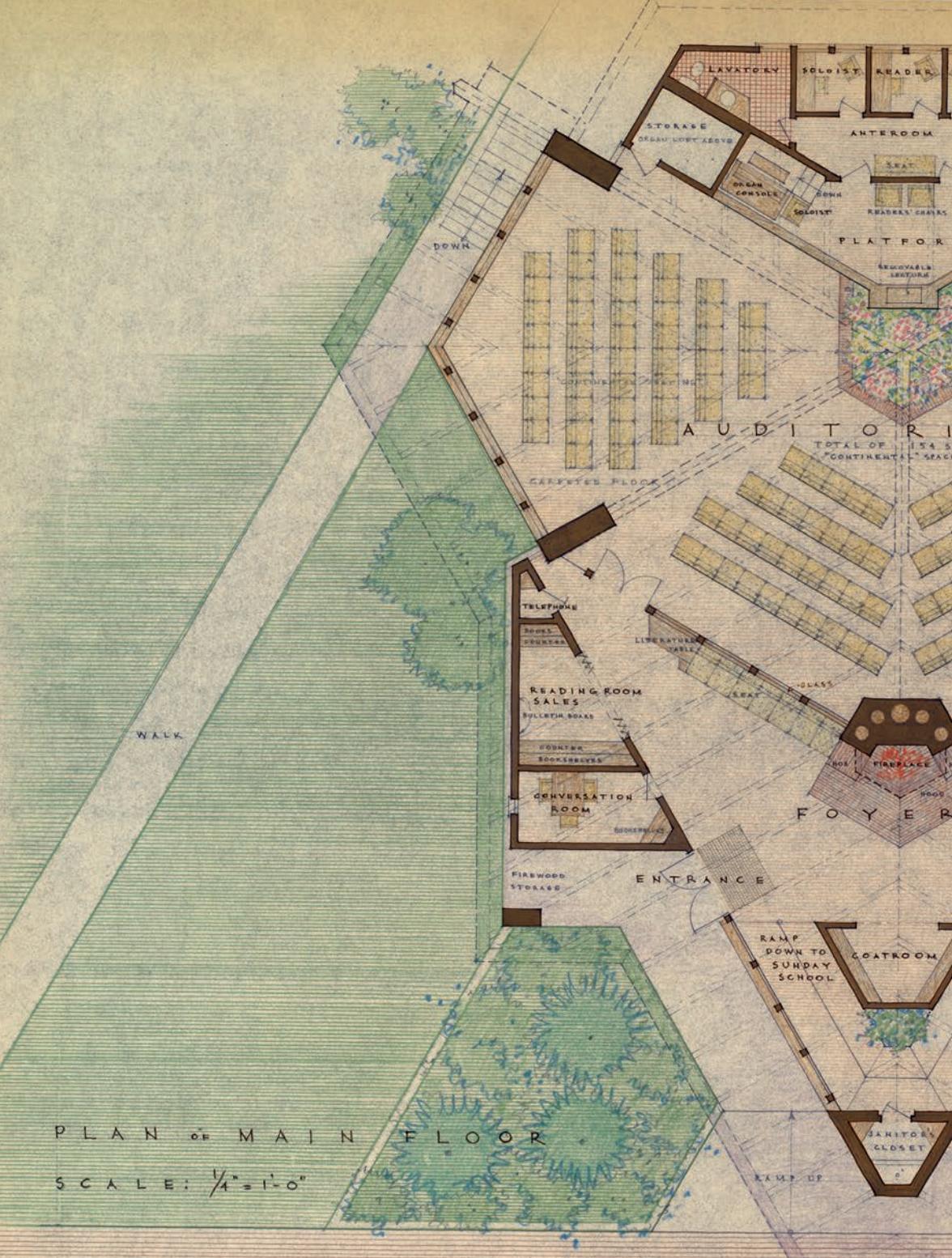
JOHN H. HOWE ARCHITECT



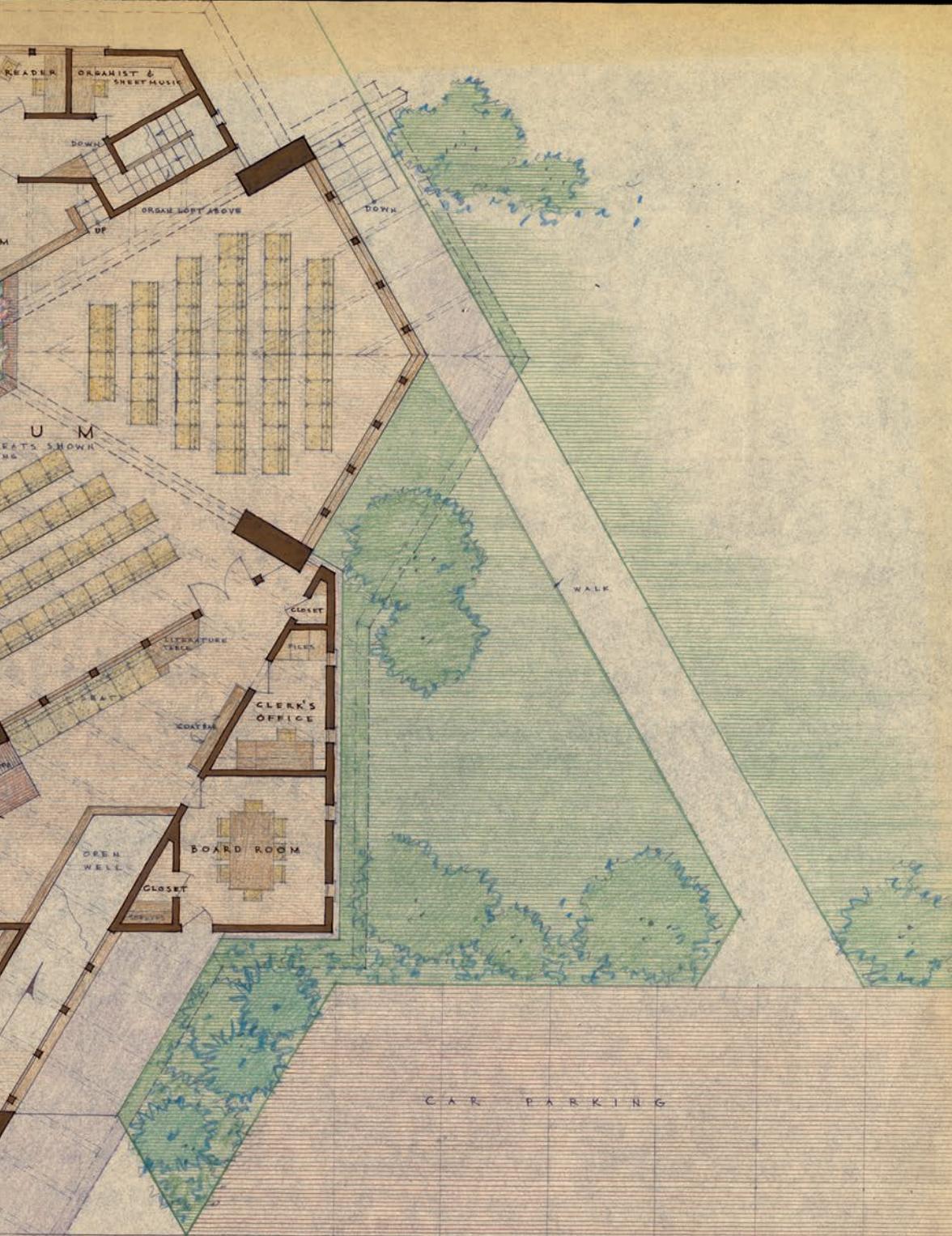
T SCIENTIST

NEW BRIGHTON

MINNESOTA



FIRST CHURCH OF CHRIST S.
JOHN H. HOWE ARCHITECT



CIENTIST

NEW BRIGHTON
MINNESOTA

The Art of Synthesis



66 Limestone Roofs. Bermuda.
©1994. Wikimedia Commons.

Taliesin West. Frank Lloyd Wright.
1937. Scottsdale, Arizona.
©2007 Xavier de Jauréguiberry.

evidence of Howe copying the designs, but are comparable elements within related styles of architecture.

The first design for the roof of the Church of Christ, Scientist was visually very different from what we see today. Originally was originally made of precast concrete and wood fiber covered with canvas waterproofing, a horizontal stepped form alternated wood beams with the canvas, similar to the stepped pattern of the ceiling and the eaves. The effect was aesthetically stunning, creating an uplifting quality, but the roof was not structurally sound and soon after was replaced with dark brown shingles. It is possible that the stepped roof could have been executed in a structurally sound manner. There are stepped limestone roofs in Bermuda that withstand hurricanes and also function to collect rainwater. Though the limestone is porous, the roofs are shored up with mortar, whitewashed and painted white. It is unclear that these roofs would withstand a Minnesota winter, but they serve as an interesting parallel to John Howe's aesthetic.

Structural problems are historically present in innovative architectural designs. Enthusiasm over the beauty and newness may override practical considerations. One historical example is Le Corbusier's *La Villa Savoye*, which the client eventually deemed uninhabitable. Impractically delicate walls made of Swiss mortar along with a leaking roof and skylights would have lead to legal action if it were not for the onset of WWII.

This stepped design is a clear reference to Frank Lloyd Wright's buildings at Taliesin, both in Spring Green and Scottsdale. Many of the ceilings at Taliesin Spring Green, like that of the living room and the architecture studio

The Art of Synthesis



68 Beth Shalom Synagogue. Frank Lloyd Wright. Elkins Park, Pennsylvania. 1954. ©2011. Wikimedia Commons.

Images on following pages:
First Church of Christ Scientist
View from the Southeast. John H. Howe. 1981. Pencil and ink
on paper. John H. Howe Papers
(N14). ©University of Minnesota,
Northwest Architectural Archives.

have similar white panels surrounded by dark wood. The studio has beams that are related to the framework inside the Christian Science Church. Likewise, at Taliesin West, the stepped nature of the panels is seen, and the mirroring of internal and external visual components. This feature can be observed in the living room, studio and theater. These ceilings were originally made of canvas panels which were rebuilt each year as the fellowship returned to the desert camp, and functioned to provide beautiful diffuse light to the interior of the buildings. A third Frank Lloyd Wright design that seems relevant to the Church of Christ, Scientist is the Beth Shalom Chapel, a synagogue located in Elkins Park, Pennsylvania. The roof and ceiling of this building are merged into one translucent structure. The form is more geometric than the church, but it has a similar diagonal structure, reminiscent of leaves or branches.

Howe's design for the church functions similarly, visually dissolving the line between the inside and outside. The pattern on the inside of the church brings a sense of lightness, and an uplifting quality. It is likely it would have had a similar effect on the outside, as well as reflecting light in the summer and creating a stunning horizontal pattern.

When comparing John Howe's buildings with Japanese buildings, it makes clear his assertion that organic and Japanese architecture are one. The buildings arise from different backgrounds, but share function and specific design elements. This correlation may be observed when comparing the Church of Christ Scientist and the Worship Hall (Haiden) of the Victory Hachiman Shrine (勝利八幡神社), a Shinto shrine near Nihon University where Howe taught in 1975. Hachiman is traditionally the god of war, protector

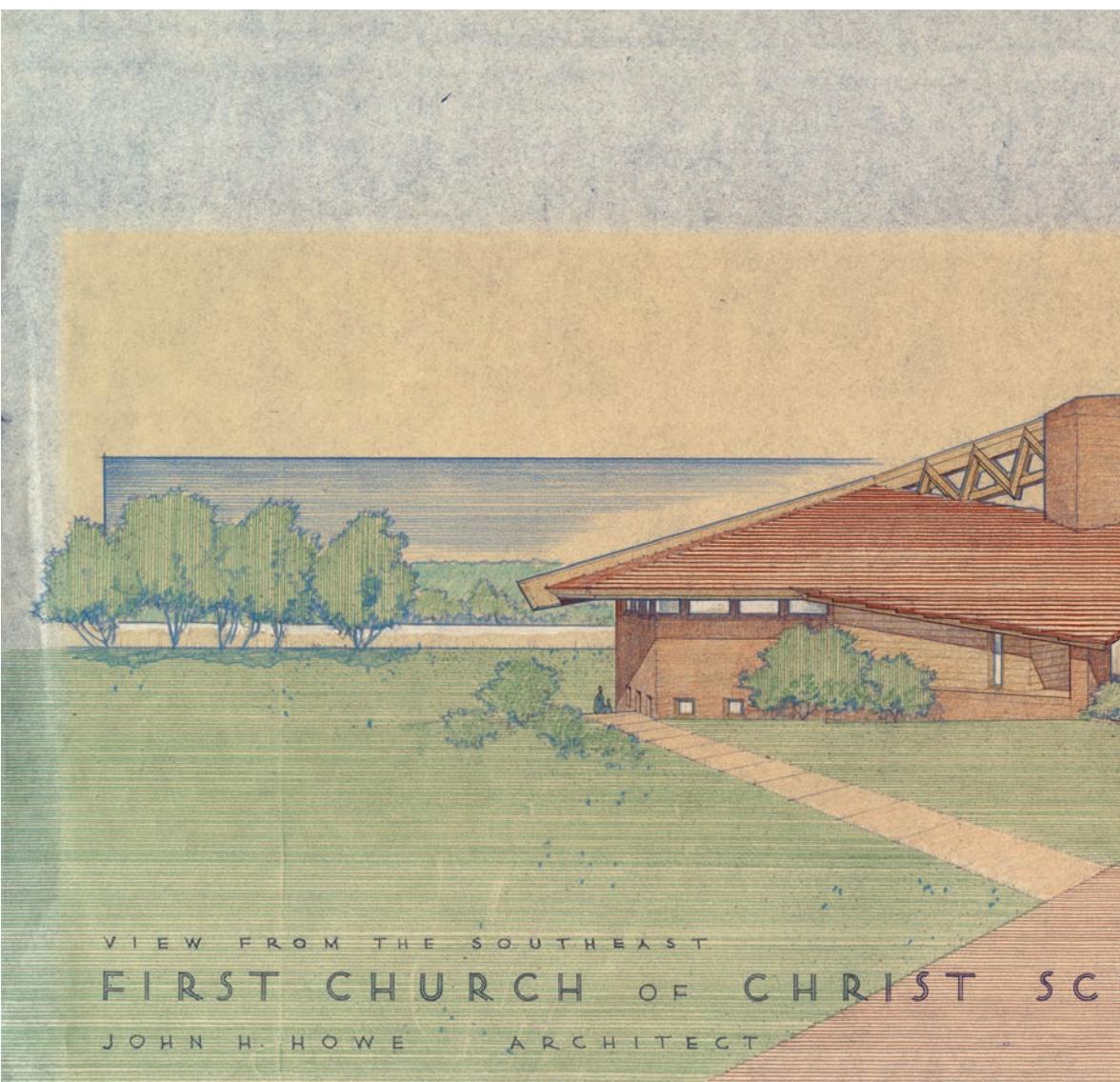
Following images:

First Church of Christ Scientist,
Longitudinal and Cross Sections.
John H. Howe. 1981. Pencil and
ink on paper. John H. Howe Papers
(N14). ©University of Minnesota,
Northwest Architectural Archives.

First Church of Christ Scientist,

View from the Southeast.

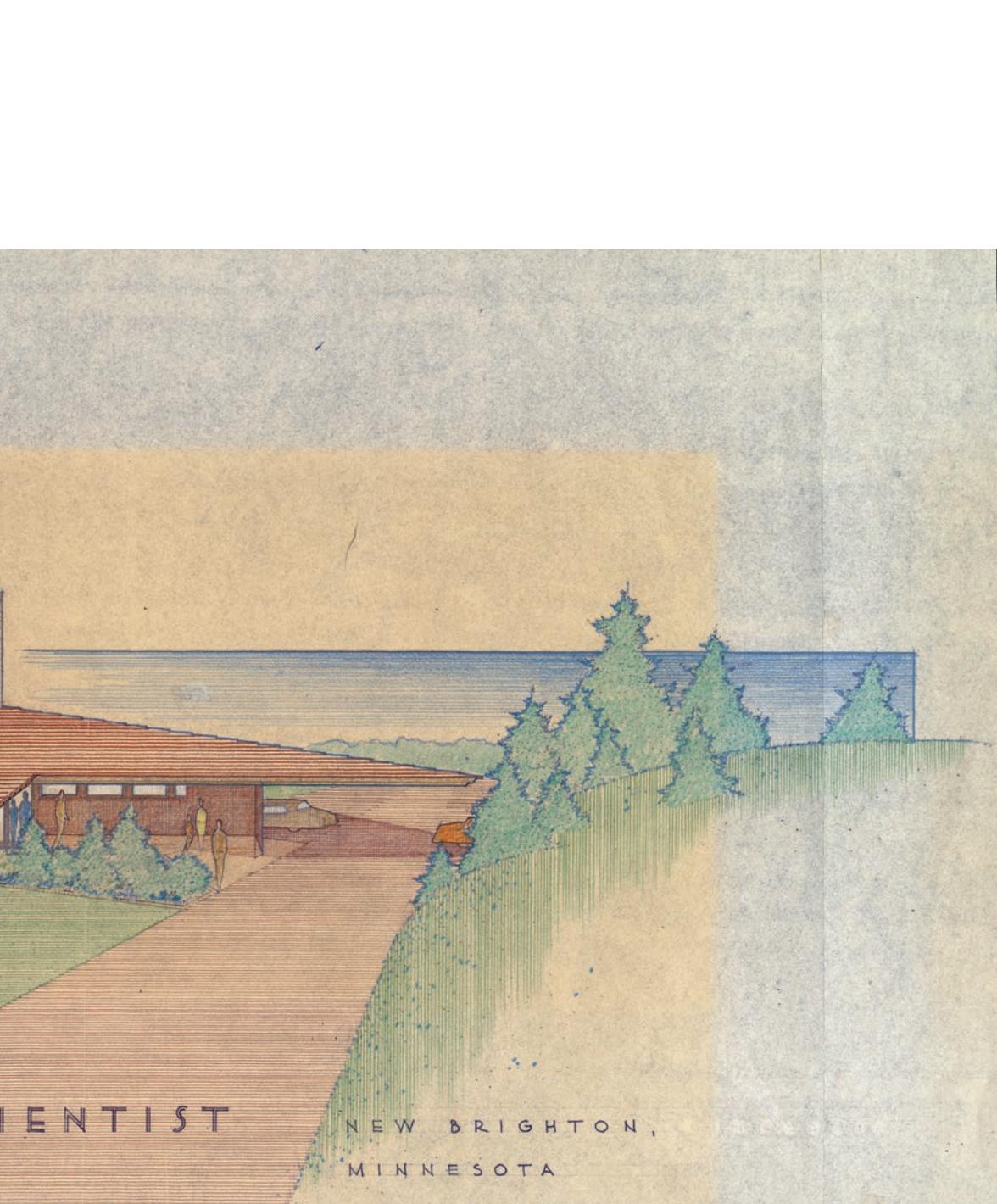
John H. Howe. 1981. Pencil and
ink on paper. John H. Howe Papers
(N14). ©University of Minnesota
Northwest, Architectural Archives.



VIEW FROM THE SOUTHEAST

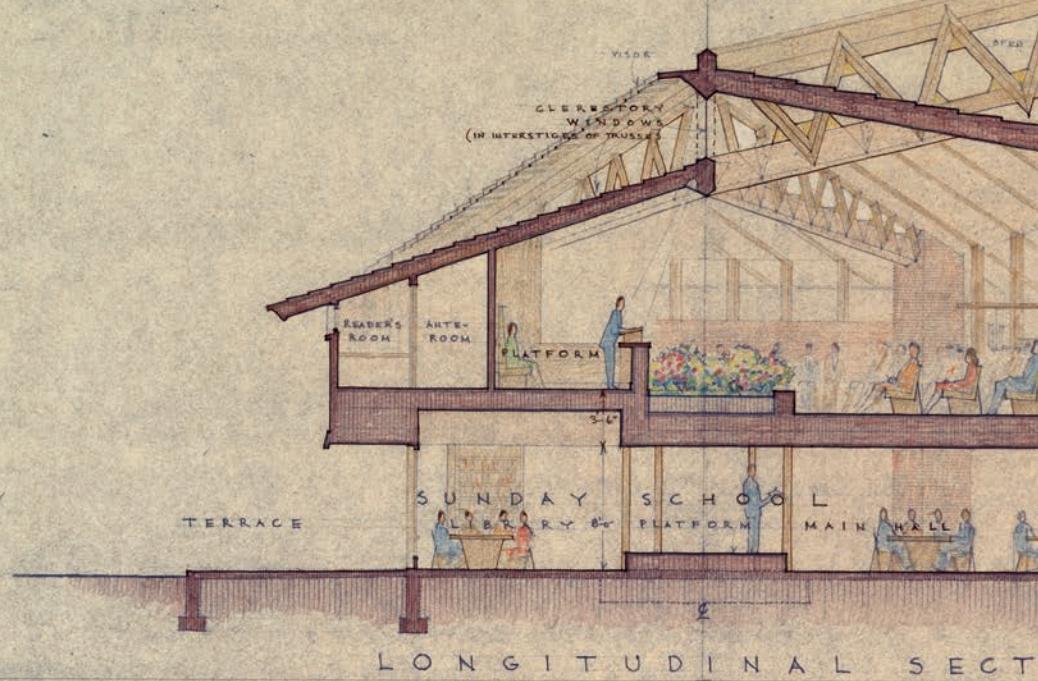
FIRST CHURCH OF CHRIST SC

JOHN H. HOWE ARCHITECT

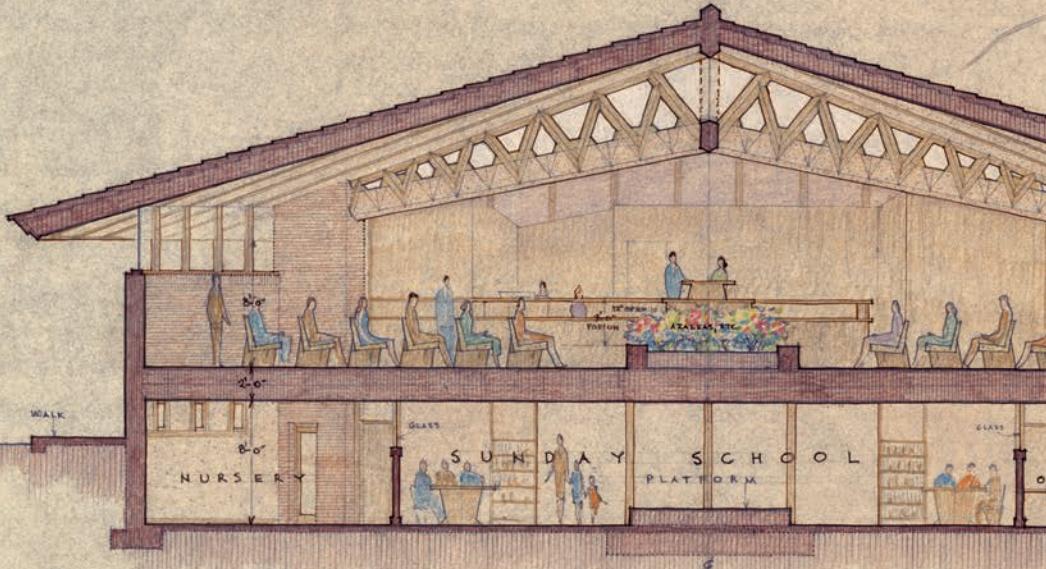


ENTIST

NEW BRIGHTON,
MINNESOTA



LONGITUDINAL SECTION

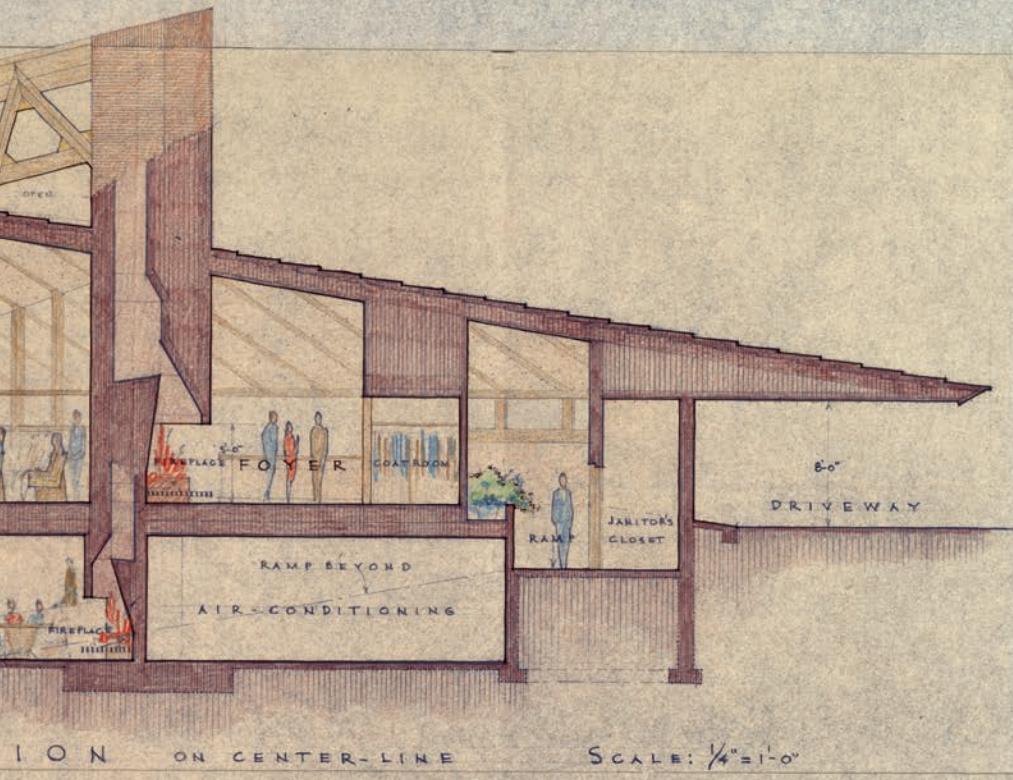


CROSS SECTION ON CENTER

FIRST CHURCH OF CHRIST S

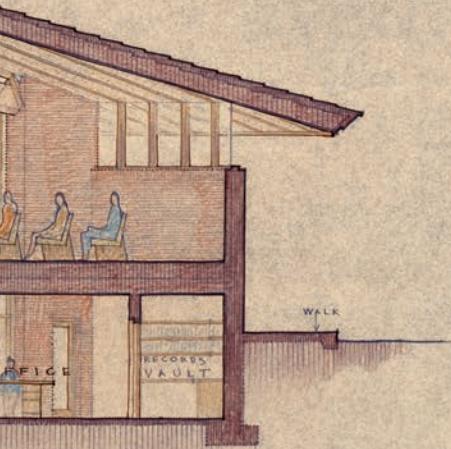
JOHN H. HOWE

ARCHITECT



ION ON CENTER-LINE

SCALE: $\frac{1}{4}'' = 1'-0''$



ER-LINE

SCALE: $\frac{1}{4}'' = 1'-0''$

SCIENTIST

NEW BRIGHTON

MINNESOTA





The Art of Synthesis

of Buddhism and the nation of Japan Shinto “the Way of the Gods” is Japan’s original religion and reveres the elements of nature like trees and mountains. Shinto shrines are traditionally rebuilt every 20 years to achieve purity, and are often closely surrounded by trees.

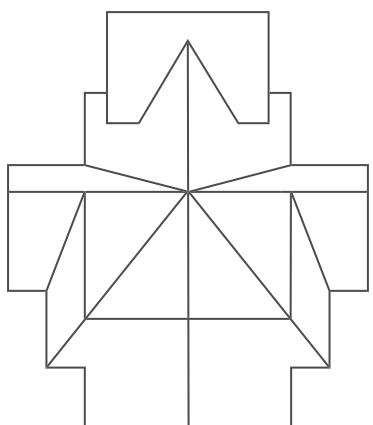
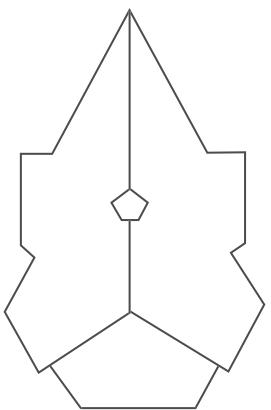
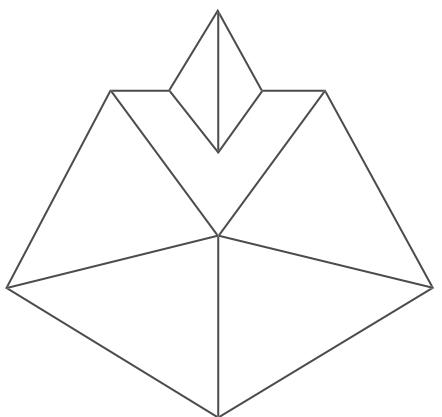
John Howe’s public buildings have some general similarities to Japanese temples. These temples are typically constructed of wood, using post and lintel, atop a stone-faced podium. Similarly, wood beams supported by stone or brick foundations and piers are repeated elements in Howe’s buildings. The Christian Science Church is functionally similar to a Shinto shrine, as both are places for meeting and worship.

The primary structural form of the buildings is quite different. John Howe’s design is radial, based upon an organic grid while the form of the shrine is based



76 Victory Hachiman Shrine. Tokyo, Japan. ©Wikimedia Commons.

Line drawings and aerial photos, top to bottom: Menomonie Public Library, Church of Christ, Scientist, Victory Hachiman Shrine. Aerial photos ©Google Maps.



The Art of Synthesis

upon a series of rectangles. It is fascinating that the roof shape of the church recalls the shape of the shrine when viewed from an aerial photo. These images also show the structural differences between the buildings. It becomes clear when observing John Howe's work and reading his writings, that though he admired Japanese architecture, he was not seeking to copy it, rather to emulate its finest characteristics of function and elegance.

The designs for the Menomonie Public Library and the First Church of Christ, Scientist illustrate John Howe's conviction and penchant for creating organic buildings that are related to the earth and built for humanity. Both buildings are examples of works of profound creativity, stability and integrity. They share similarities of form, and reveal differences that are related to their intended use, requirements of the community and an intentional integration into the surrounding site. This flexibility and attention to detail resulted in buildings that hold a beauty rooted in harmony masterfully obscured by the relevant functionality of each space.

78 *Images following pages:*
First Church of Christ,
Scientist, Ceiling Detail.
©Diana Witcher. 2013.

First Church of Christ, Scientist,
View from the Southeast.
©Diana Witcher. 2013.

First Church of Christ, Scientist,
Interior. ©Diana Witcher. 2013.

Origins of Organic Architecture



First Church of Christ,
Scientist, Exterior Detail.
©Diana Witcher. 2013.













CONCLUSION

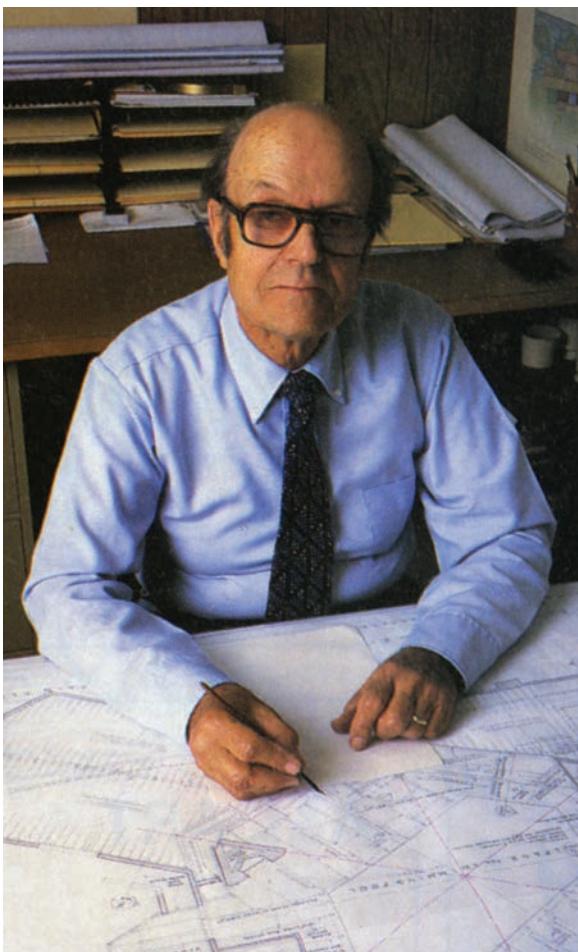
Architect John H. Howe designed buildings with qualities of distinctive strength and understated beauty. His strongest influence is that of organic architecture, and his mentor Frank Lloyd Wright. While the observance and admiration of Japanese art and architecture is an important element of John Howe's work, it is ultimately subservient to his individual design style. His forms are more complex, more resolute, and also more inherently Midwestern than the restrained elegance of Japanese traditions. Ultimately John Howe sought not to copy or emulate but to synthesize new forms through his unique design method. He humbly began with a piece of earth, the desires of the client, and the materials at hand. From these beginnings he resolutely crafted structures that were new and groundbreaking in their time. These innovations met with both success and challenge, but ultimately resulted in a body of work by an architect whose earnest desire to create resulted in truly remarkable buildings. His consent to merge his artistic will with the nature of the site and the function of the space as sources of inspiration led

The Art of Synthesis

to buildings that speak of a discreet revolution. John Howe looked for architecture to humbly transcend the mundane, providing shelter from the chaos of modern life. “We live in brutal times when all forms of art reflect the brutality of life and tend to be noisy and nervous. The poetic and sensitive qualities are regarded as out of date, and dissonance has replaced harmony”.

These qualities of sensitivity and harmony are apparent in his work, as is a sense of strength and purpose. John Howe had a long, prolific and distinguished career. He practiced a humble yet ambitious form of architecture that was grounded in a pragmatic ethic of purity in materials, integrity of form and relationship to the earth. His works are truly fine examples of organic architecture. John Howe worked tirelessly to create buildings of unique character, providing functional structures mindful of their human inhabitants, creating spaces of synthesis through a truly intelligent design method.

Origins of Organic Architecture



RESOURCES BY CHAPTER

APPRENTICESHIP TO FRANK LLOYD WRIGHT

Rob Barros. Designing the Perfect Gift - Taliesin Apprentice Box Projects. *The Journal of the Taliesin Fellows*. Issue 39., Taliesin Fellows, Inc., Scottsdale, AZ. 2013.

Jane King Hession & Tim Quigley. *The future imagined : John Howe in Sandstone. Architecture Minnesota.* 26 (4). 2000.

John H. Howe. Lecture by John H. Howe given in Tokyo, Japan. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1966.

John H. Howe. Lectures by John H. Howe given in Japan. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1975.

Richard L. Kronick. The Pencil in Frank Lloyd Wright's Hand. *The Journal of the Taliesin Fellows* - Issue 23. Summer. Taliesin Fellows, Los Angeles. 4-17. (1998).
John Howe quote page 19.

Robert McCarter. *Frank Lloyd Wright*. New York: Phaidon Press. 1999.

Julia Meech. *Frank Lloyd Wright and the Art of Japan: The Architect's Other Passion*. New York: Harry N. Abrams, 2000.

MIA. *John Howe in Minnesota: The Prairie School Legacy of Frank Lloyd Wright*. September 2, 2000-January 7, 2001. Minneapolis Institute of Arts, Frank Lloyd Wright Building Conservancy. Minneapolis Institute of Arts, 2000.

The Art of Synthesis

Kevin Nute. *Frank Lloyd Wright and Japan: The Role of Traditional Japanese Art and Architecture.* Routledge. London. 58, 108.
Kevin Nute quote pg. 23, 40.

Diana Witcher. Interview with Geoffrey Childs in November, 2013. Online. 2013.

LIFE AND WORK AFTER FRANK LLOYD WRIGHT

Richard L. Kronick. The Pencil in Frank Lloyd Wright's Hand. *The Journal of the Taliesin Fellows.* 23. Summer. Taliesin Fellows, Los Angeles. 4-17. (1998).

JOHN HOWE'S ORGANIC ARCHITECTURE

John H. Howe. Lectures by John H. Howe given in Japan. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1975.
John Howe quote page 40.

John H. Howe. John Howe in Minnesota: The Prairie School Legacy of Frank Lloyd Wright. *Minneapolis Institute of Arts.* Minneapolis, Minnesota. 2000.

Bernard Jacob. The Architecture of John Howe. *Minneapolis Tribune.* June 1983.

Hank Koning and Julie Eizenberg. "The Language of the Prairie: Frank Lloyd Wright's Prairie Houses." *Environment and Planning B: Planning and Design.* 14 December. 1981. 295 – 323.

Richard L. Kronick. The Pencil in Frank Lloyd Wright's Hand. *The Journal of the Taliesin Fellows.* 23. Summer. Taliesin Fellows, Los Angeles. 4-17. 1998. 6.
John Howe quote page 39.

Maggie Lange. Public Spaces That Speak. Design Bureau. Issue 20. 2013. Online. <<http://www.wearedesignbureau.com/projects/public-space-that-speak/>>. *John Ruskin quote page 38.*

Linda Mack. "Living in a Howe House: Wright's Draftsman Also Built a Lot." *Star Tribune.* 26 April 2000. Online. <<http://www.startribune.com/lifestyle/11478911.html>>

ORGANIC ARCHITECTURE AND ITS JAPANESE INFLUENCE

Alain de Botton. *The Architecture of Happiness.* Vintage Books, Random House. New York.

John H. Howe. Lecture by John H. Howe given in Tokyo, Japan. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1966. 5.
John Howe quotes page 43 and 44.

Origins of Organic Architecture

A SYSTEM OF UNITS

György Dózsa. *The Power of Limits*. Boston, Massachusetts: Shambhala Publications. 1981.
Heinrich Engel. *The Japanese House*. Rutland, Vermont; Tokyo: C. E. Tuttle, 1964. Print.

Richard L. Kronick. The Pencil in Frank Lloyd Wright's Hand. *The Journal of the Taliesin Fellows* - Issue 23. Summer. Taliesin Fellows, Los Angeles. 4-17. 1998. 6.

Diana Witcher. Interview with Geoffrey Childs, November 2013. Online. 2013.

Geoffrey Childs quote page 32.

JOHN HOWE'S PUBLIC BUILDINGS

John H. Howe. The Menomonie Public Library. [Brochure] Menomonie Public Library. (1986).

MENOMONIE PUBLIC LIBRARY

Chuck Backus. 1986: Menomonie dedicates new public library. Dunn County News. Retrieved 3/24/12: http://chippewa.com/dunnconnect/news/local/history/menomonie-dedicates-new-public-library/article_87ecac7-a-c3a8-11e0-a8e2-001cc4c03286.html. 2011.

Kay Barnard. Building the Menomonie Public Library: An Inside View. Menomonie Public Library. (1986).

CHURCH OF CHRIST, SCIENTIST

Architect Bio and Building Description to Madge Ritter. Christian Science Church. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1972.

Alexandra Bandon. This Roof Resists Hurricanes, Collects Water: Bermuda's limestone roofs withstand hurricanes... *This Old House Magazine*. Online. <<http://www.thisoldhouse.com/toh/article/0,,636457,00.html>>

Alain de Botton. *The Architecture of Happiness*. Vintage Books, Random House. New York.

Kazuo Nishi and Kazuo Hozumi. *What Is Japanese Architecture?* New York: Kodansha USA, 2012.

Penelope E Mason. *History of Japanese Art*. New Jersey. Pearson Prentice Hall. 2005.

CONCLUSION

John H. Howe. Lectures by John H. Howe given in Japan. *John Howe Collection* (N14). University of Minnesota Libraries, Minneapolis, MN. 1975. 4.
Howe quote page 108.

ACKNOWLEDGEMENTS

Thank you to everyone who supported me throughout this project:

Christine Avery, Beth Barone, Barbara Bezat, Dr. James Bryan,
Geoffrey Childs, Alex DeArmond, Dr. Sarah Diebel, Ryland Erdman,
Jeremy Galetka, Monika Herrmann, Bert Fraher, Evelyn Johns,
Douglas Johns, Toshia Larson, Kimberly Lokken, Kitrina Peters,
Kathy Ruggles, Jada Schumacher, Ahmed Teleb, Jennifer Torkelson,
John Thomas, Andrew Violet, Dr. Andrew Williams, Jan and Bob
Willow, Cari Witcher, Gabe Witcher and Dr. Sarah Wynn.

This project is for educational purposes.

