Abstract: This paper examines the changing nature of craft through the lens of Detroit architecture, as it evolved from application of ornament by skilled artisans, to a shaping and manipulation of space driven by architectural design and innovative materials. Critics of Modernism, particularly mid-century modernism, argue that there was a decline in craft as Detroit to industry in the modern age. In fact, craft did not disappear, rather it was reborn in the hands of architects whose artistic expression emerged in larger scale strategies around the sculpting of space. We can see the inception of this shift in the work of Eliel Saarinen at Cranbrook. This paper will address how buildings like the Guardian Building (1929) exemplify traditional craft. It will also address the role of one carpentry company, the Wunderlich Company, in the execution of traditional craft and the evolution of craft as Detroit architecture embraced Modernism. It will then trace this development of craft through an examination of mid-late century modern buildings.

Detroit is the cradle of automobile innovation and production. Home to the “Big Three” car companies, Detroit craftsmanship is exported around the globe. However, Detroit craftsmanship is not limited to the car industry. The heart of the city possesses a rich core of design excellence in multiple styles and movements. Twentieth century Detroit was fast paced and full of modern ideas. During the early 1900’s, as industry grew and industrially produced materials dominated the market, an urge for traditional handcrafts and the elegance they put forth, was paralleled in architecture. There is an underlying sense of “Craft” in Detroit architecture from the early to mid 20th century. Traditional craft can be seen in buildings richly decorated with mosaic, ceramic tiles, stained glass, mural paintings, metal work, marble, and woodwork, much of which was created by Detroit craftspersons. By the 1950s, the desire for handcraft waned and the cultural zeitgeist emboldened architects to explore the alteration of space as an artform in and of itself. Handcraft was seen as ‘old fashioned’ and not in keeping with modern Detroit. In this way, craft never became extinct; Detroit architects redefined craft and took on the role of the craftsman as they used new materials and technologies to create modern spaces.

As scholars we can understand this transition from handcraft to sculpting of space as something that has equal value. Without passing a judgment on the value
of one over the other, we are able to analyze and contextualize both as a part of the architectural continuum. It is difficult for society to evaluate this new definition of craft in this way, and we will see that many perceive it as a break with tradition rather than another phase in architectural history.

The rebirth of traditional craft began in England in the late 19th century. In response to the Industrial Revolution, England’s wealthy bourgeoisie fought to revive the handcraft and reject the impersonal nature of mass-produced goods. The Arts and Crafts Movement was not a style of art, but a principle. According to H. Allen Brooks from the University of Toronto in his article for the Society of Architectural Historians in Chicago, the Arts and Crafts Movement was “an attitude, an approach to a problem that demanded simplicity, elimination, and respect for materials.”

The British Movement favored the decorative arts, and craftsmen created one of a kind items by hand, many of which were too pricey for the middle classes to afford. Critics of the Arts and Crafts Movement argue that these objects were only available to the elite and most objects were beautiful but lacking in purpose. However, once the Arts and Crafts Movement made its way to the United States in the early 1890s, it abandoned several principles linked with the British movement; the most important of which was the attitude towards industry. The American Arts and Crafts Movement did not condemn the machine, rather it re-examined the craftsman’s relationship with the machine; in fact, it embraced many of the possibilities modernity offered.

1 Alan Crawford, “Arts and Crafts Movement,” Grove Art Online, Oxford Art Online, accessed March 20, 2013, http://0-www.oxfordartonline.com.wizard.umd.umich.edu/subscriber/article/grove/art/T004452. The Arts and Crafts Movement began in the British Isles around the middle of the 19th century, but was made international with the work of William Morris. Morris and others criticized industry calling the work “soulless and degrading.” “They condemned the decorative arts of their own day as revivalist in style, machine-made and heavy with meaningless ornament, and looked instead for fresh, unpretentious design, honest construction and appropriate ornament. They wanted to break down the hierarchy of the arts, challenging the supremacy of painting and sculpture and rejoicing in the freedom to work in wood, metal, enamel and glass.”


The Arts and Crafts tradition in Detroit can be seen in many buildings of the early 20th century. The Guardian Building (1929) for example, is often attributed to the later Art Deco style, but it is also a testament to the tradition of handcraft and early industry. Art Deco buildings are particularly noteworthy for the decadence of ornament that exemplified Detroit’s wealth and prestige at the time. Designed by Wirt C. Rowland while he was
with the Detroit architectural firm Smith, Hinchman & Grylls, the Guardian Building was the tallest masonry structure in the world when it opened in 1929. The early skyscraper encompasses the entire city block of Griswold and Larned in the heart of the city. Rowland collaborated with Detroit craftsmen to complete the 40-story building, including developing a custom orange brick for the exterior later named Guardian Brick.

Rowland’s design for the interior and exterior ornament of the Guardian Building includes marble sculptures, marble inlay, mosaic tile, stained glass, metal works, painted geometric designs, and a large narrative mural. Rowland incorporated a stepped arch pattern and bright colors on the interior and exterior of the building inspired by Aztec ruins discovered near Mexico City in the early 1900s. Often referred to as the “Cathedral of Dan Austin, “Guardian Building,” Historic Detroit, accessed February 20, 2013, http://historicdetroit.org/building/guardian-building/.

Finance,” the compact lobby with a high vaulted ceiling is richly decorated with handpicked marble, handmade tiles, and inlaid mosaic. Moving toward the promenade, visitors pass through an ornate metal screen with a Tiffany glass clock that mimics the altar and cross of European Cathedrals.

The banking hall where visitors now find stores and small cafes is also richly ornamented with a geometric design painted on the ceiling, a painted narrative of Michigan’s industry on the back wall, and decorative tile portions on the walls. The hall resembles the nave of Cathedrals with smaller niches extending on either side down the length of the hall. Many regional and local artists worked with the architect to create elements for the building. Pewabic Pottery in Detroit and Rookwood Pottery in Cincinnati completed the most extensive and eye-catching element within the building: beautiful multicolored tiles that face the three-story vault ceiling, arched niches around doors and elevators, and some of the exterior.

Pewabic Pottery was founded by Mary Chase Perry Stratton and Horace James Caulkins in 1903. Pewabic Pottery is still active in Detroit, creating decorative tiles for elaborate installations in Detroit’s finest mansions and commercial buildings, as well as art objects for the home. Each tile is a work of art. Embodying the ideals of the Arts and Crafts Movement in America,

4 IMDb

Stratton designed and created a new glazing technique that distinguishes her work from other artists at the time. The high luster and vibrant opaque colors of the tiles in the Guardian Building are a tribute to the level of craftsmanship this company became known for. Still to this day, Pewabic Pottery produces the same level of work for their exclusive clientele.

Mary Chase Perry Stratton, along with other local artists and art collectors, felt the need to propagate the message of the Arts and Crafts Movement in Detroit. The Detroit Society of Arts and Crafts was founded in 1906. George G. Booth, the business manager of the Detroit Evening News later the Detroit News, was the first president of the society. The Society was on the cutting edge of innovative Detroit design. In fact, in 1933, it became the first group in the United States to acknowledge the automobile, an industrially produced object, as an art form. The Detroit Society of Arts and Crafts founded a school in the early 1920s to teach the techniques of traditional craftsmen. The school expanded its traditional focus on the decorative arts to include industry. Now the College for Creative Studies, the school flourished because the auto industry recognized the integral role of the artist in industrial design.

The American interpretation of the English Arts and Crafts Movement began to redefine the craftsmen. No longer was the term limited to the small-scale production of luxury goods. Herwin Schaefer, a critic responding to the shift of American industry in the 1950s, argued that industry was expanding and the idea of craft was morphing:

We have men within industry who, much more than our makers of bric-a-brac, are the true descendants of the old craftsmen; they are the...many hand workers in the less mechanized industries, such as the ceramic, furniture and building industries. These men contribute more to our visual environment by their skill and knowledge and by their sensitivity to form...they interpret and realize the dreams and drawing of artists and architects, of designers and engineers. Like the craftsmen of old, they take themselves and their work for granted, they are modest, in fact anonymous.8

Among the craftsmen Schaefer describes are the carpenters in construction. Founded in 1912, the Wunderlich Company served metro Detroit as eminent carpenter contractors for almost 80 years. Harry T. Wunderlich, an immigrant from Prussia, entered into the apprenticeship program with the Detroit architectural firm Donaldson and Meier. The firm is known for many Detroit landmarks, including the David Stott Building. After several years under the tutelage of the firm, Wunderlich left to start his own carpentry firm. The Wunderlich Company was commissioned to do many jobs in metro Detroit, mainly for clients who had an appreciation for rich, luxurious woodwork, and the financial resources to engage master carpenters.

Archives from the Wunderlich Company no longer exist following the Company’s close in the early 1990’s. Also, many of the buildings that the Wunderlich Company worked on have not retained documents regarding the sub-trades. Those that will be examined here are from the personal recollection of Alan Wunderlich, Vice President at the Wunderlich Company until 1988.9

9 Alan Wunderlich, Interviewed by Caitlin Wunderlich, February 2013. Alan was Vice President at the Wunderlich Company 1984-1988, and prior to that he was the Lead Estimator 1966-1984.

Interior of Guardian Building, featuring a stained glass narrative and colorful tile from Rookwood Pottery and Pewabic Pottery.


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Just as Herwin Schaefer described, carpenters as well as other trades involved in the construction field are “like the craftsmen of old, they take themselves and their work for granted, they are modest, in fact anonymous.” They are responsible for the execution of an architect’s design, but they work for the pride of the job, not for their names to be forever immortalized in history. Despite the lack of documentation, many people within the construction industry still remember the Wunderlich Company and the excellent quality of work they produced. Like many other companies in Detroit, Harry T. Wunderlich established a family company that survived several generations of leadership. However, as architectural trends changed within the city, the ornate craft the Wunderlich Company was known to provide faded out of demand.

The emphasis on craft has been passed down through generations by means of the Detroit Society of Arts and Crafts, and companies like the Wunderlich Company, but George G. Booth established one other center for craft and design. Just outside the limits of Detroit lies Cranbrook Educational Community where Detroit design was produced and disseminated to the world. Cranbrook Educational Community is a campus focused on education and the role of art in everyday life. Modern Detroit architecture is an evolution of principles and ideas begun by Arts and Crafts supporters like Booth, and fully realized by later generations of architects. In order to analyze modern Detroit architecture and its redefinition of craft, it is essential to first examine the creation and impact of the Cranbrook Educational Community and the role of the Saarinen family.

Eliel Saarinen, an architect from Finland, is remembered for the progressive design he submitted to the Chicago Tribune Competition in 1922. After placing second with a modern skyscraper design, he moved to America to teach architecture. Later, at the behest of George G. Booth, he came to Bloomfield Hills to help Booth realize his dream of an educational and religious community centered on art and traditional craft. Founded on the ideals of the Arts and Crafts Movement, Booth wanted to develop an interdisciplinary artistic community, similar to what Saarinen established with other artists in Finland. Artists were encouraged to work together and the interaction of artistic mediums blossomed into clever ideas and inventive designs. The environment flourished because of this collaboration and natural competition. In this way, Cranbrook became the birthplace for new and innovative ideas about the intersection of art and design in a modern context later implemented in and unique to Detroit. This laid the groundwork for a transformation of craft over the next two generations.

Inspiration at Cranbrook emerged from the campus itself. According to Diana Balmori founder of Balmori Associates, a New York based landscape design firm, “Cranbrook was the most successful and long-lived of the Arts and Crafts institutions in America. After the 1930s, the modern movement eclipsed Arts and Crafts, creating an ironic hegemony, as the modern itself had been shaped by Arts and Crafts ideas, forms, and philosophy.” Meaning, modern Detroit architecture is based on this underlying tradition of the Arts and Crafts Movement; they are not two separate and finite movements, one flows into the next. The Cranbrook campus exhibits a clear tradition of Arts and Crafts architecture while incorporating the more modern architectural style in later buildings.

Eliel Saarinen designed the campus along axis points and visual intersections. Peter Papademetriou best described the overall plan of the campus noting that Saarinen “shows a positive concern for exterior space. The courts and gardens, defined by buildings and linked by roads and walkways, are organized axially, with a rich interplay between localized symmetry and compositional balance; subtle shifts and loose connections articulated by variation of shape and departures from strict orthogonal regularity provide endless variety.” Saarinen did not design independent buildings, rather he designed an ensemble of buildings that relate to one another and are positioned according

to a planned spatial relationship. With the help of several landscape architects, Saarinen sculpted the landscape in which to place his buildings. The result of which is architecture that encompasses the physical building and outdoor space, a characteristic of Arts and Crafts architecture and later implemented by modern architects. Saarinen’s design further fulfills Arts and Crafts principles by incorporating various art mediums to create one grand art object: the Cranbrook campus. Crafting the landscape, incorporating water features, and placing sculptures as outdoor focal points all serve as an extension of the built environment.

Driving through the sculpted hills of the campus, the road cuts through thick sections of trees and schools begin to appear through the foliage. Continuing down the road, visitors pass a man made water feature, Lake Jonah, and round the circular drive where the Museum and Library (1942) come together to form a portico. The buildings appear to grow out of the landscape, as the view of the building is determined by the viewer’s position within the landscape. Saarinen’s design of the campus and the placement of buildings emphasize the journey through space. It is not possible to see any building from a main road; visitors must enter the campus, follow the winding road, and move around barriers like water, trees, and sculpture to fully appreciate a building.

Standing on the sidewalk looking toward the Museum and Library, visitors must climb a set of stairs to reach the ground plane of the building. In front of the complex, Saarinen prominently places Carl Milles’ Orpheus fountain. Beyond the fountain is a portico that connects the two buildings, and is reminiscent of a modernized Greek colonnade with thin rectangular columns. The sight line continues through the portico to long pools of water featuring Milles’ Europa and Triton fountains. This axis is one of many on the campus that Saarinen designed and it is meant to provide visual termination points that relate to the orientation of the buildings. Also, the creation of the portico between the Museum and Library is a visual example of the transition spaces Saarinen created; many transition spaces are not as clearly defined, but are articulated by the subtle shifts in greenery and the built environment.

The Museum and Library complex is modern architecture, but it is not the stark modernism most relate with the phrase “modern architecture.” Rather these buildings are a progression of Saarinen’s earlier designs on campus like Kingswood School for Girls (1929-31). Kingswood is signature Arts and Crafts style architecture. Saarinen incorporates stained glass windows, elaborate brick patterns, and elegant gold pyramid shaped columns, all of which resembles the forms and richness found in the Guardian Building completed around the same time.

Saarinen’s later style featured in the Museum and Library complex integrates some of the traditional craft elements like the beautiful copper doors, but he designed a streamline, smooth surfaced, and proportional building. Saarinen created a unique and interesting space, which acted as a prominent feature of the design. The design of Kingswood emphasizes the individual art objects to create a larger space, but the later design of
the Museum and Library demonstrates a progression to modernism while still retaining signature Saarinen design elements like the copper doors. Both the Museum and Library are built with a light colored stone facade and matching light colored brick. Saarinen repeats the rectangular columns of the portico in the design of the exterior façade to break up the monotonous brickwork. The rectangular design of the columns and the emphasis on 90-degree angles also resembles the new modern uses of the I-beam in steel framed construction. Saarinen references this modern material through traditional brick and stone.

The interior of the Library demonstrates Saarinen’s progression in style while still incorporating features that are unique to Saarinen. Gregory Wittkopp, the Director of Cranbrook Art Museum and Cranbrook Center for Collections and Research, wrote about the design of Saarinen House saying that Saarinen created a “sternly simple space where the careful orchestration of a limited number of elements creates an environment of impeccable harmony.”15 This design attitude is implemented in the Library as well. Saarinen designed a large rectangular room with plenty of natural light that enters from the long row of windows on one wall. Beneath the row of windows Saarinen designed several workstations equipped with unadorned wood desks with a simple and functional design and matching chairs. In addition to the individual workstations, Saarinen designed a small seating area on top of a rug, which is attributed to Studio Loja. The other side of the room houses all of the books in large rectangular shelving units with their own thin bar lights attached to the top. Above the workstations are a row of lights each made up of dangling concentric ovals, which appear to be modern renditions of chandeliers. By the entrance is another seating center with built in wood furniture and matching wood panels covering the wall.

Although a very streamlined and clean design, Saarinen still includes references to the Arts and Crafts Movement. On the exterior he includes strange geometric hieroglyph designs beneath the windows and ceiling of portico as well as on the copper doors to the Museum and Library. These designs are an abstract ornamentation that serves as a transition from the decorative narratives found at Kingswood school and later modern architecture that is against the use of ornament.

Saarinen’s design for Cranbrook Museum and Library fulfills the Arts and Crafts tradition of integrating art objects and landscape as part of the overall architecture of the site, while still responding to the modern movement and advances of industry. His architecture has the streamlined design of modern buildings with the details that remember the Arts and Crafts tradition Cranbrook was founded on. The interior of the Library focuses on the individual’s experience in the space; the space is used for study and learning, and the interior is bright and uncluttered to accommodate for that. This is part of the transformation of applied ornament as traditional craft and the new definition of craft as the manipulation of space. Later, modern architects studied Saarinen’s work at Cranbrook and used his techniques of sculpting space and the physical movement through space as inspiration in their more abstract designs.

Several years after the completion of Cranbrook’s campus, the city of Detroit launched revitalization plans to improve the heart of the city. Architects were commissioned to design modern, sleek buildings that enhanced the city’s skyline. One project the city planned was for a new civic center, today referred to by locals as Cobo. There was only one problem; the site for the planned civic center was already occupied by the historic Mariners’ Church (1849).

Mariners’ Church is a traditional craft building that was constructed prior to the Arts and Crafts Movement in Detroit. Principle design elements in the church were later embraced by the Arts and Crafts idealists, and honored through the many renovation and restoration projects. Mariners’ Church has an incredible history of struggle and perseverance, including the threat of demolition for a new modern building in 1955; but at the final moment, the city along with the Church and local historians decided to move the 3,000 ton structure 880 feet down Jefferson Avenue to its present location on the corner of Randolph and Jefferson.16

Built to serve all sailors on ships in the Great Lakes and around the world, Mariners’ Church was founded in 1849 through the will of Julia Ann Anderson as a free Church for all people.17 The Church was originally built with stores on the lower level and religious services above, to support the building during times of low attendance. Workers removed the upper level of the Church to relocate the structure. The process of moving a building is an undertaking of complex engineering and planning. According to Alan Wunderlich, it hasn’t become any easier with the evolution of technology.18

Mariners’ Church at its present location 170 East Jefferson Ave.

Mariners’ Church moving down Jefferson Ave. (1955) Photo: Mariners’ Church Archives.

Engineers, masons, and a huge group of press were present for the four-month move down Jefferson Avenue. Life Magazine published an article that described the process of moving the Church, “the hoisting of the 3,000-ton limestone structure by 600 jacks. Set on four I-beams atop rollers, the church was tugged along a

18 Alan Wunderlich, Interview by Caitlin Wunderlich, at Mariners’ Church, February, 2013, referring to the recent relocation of the Gem Theater in downtown Detroit.
Among the workers present for the move, the Wunderlich Company was called on to be the carpentry contractors; they established a relationship with the Church that lasted through the next 30 years of restoration and renovation. Workers built a new foundation for the Church to be placed upon, and the foundation is still visible from the exterior limestone.

The relocation of the Church required skilled craftsmen to hold the Church together, and to make repairs once it was set on its new foundation. The stained glass windows were re-installed, and new windows were cut out of the north face of the Church. The interior objects were re-installed and updated. The Wunderlich Company was responsible for much of the interior renovations and reinstallations including refinishing the original floors, doors, and building new wood staircases to connect the main level of the interior with the new sublevel. Any modifications made to the building were done with the utmost care and a level of craftsmanship that glorifies the original integrity of the building. The Wunderlich Company was one of many companies charged with the task of refurbishing the 160 year old church.

The Church’s Bell Tower was constructed in 1957, and Mr. and Mrs. Henry Scripps Booth, Trustee of Mariners’ Church and son of George and Ellen Booth the founders of Cranbrook, donated a new Brotherhood Bell to Mariners’ Church. As time progressed the Church felt the need to provide another location for their deceased members or those who fell victim to the Great Lakes. They called again upon the Wunderlich Company to complete the columbarium inside the Bell Tower with The Studios of Potente. Probably the best example of the Wunderlich Company’s craftsmanship and dedication is the two-story columbarium that was built entirely of wood to create 231 Repository Niches [17 tall, 13 across, each 11 inches by 11 inches]. Alan Wunderlich remembers carrying each piece of wood up the tight spiral staircase and using pulleys to hoist supplies up the tower to construct the huge wall of the columbarium. He describes the Wunderlich Company’s relationship with the Church saying, “Fr. Ingalls would call Wunderlich Company directly for any


20 Created for the Ages: A History of Mariners’ Church of Detroit, Mariners’ Church of Detroit: 2001: 100.

repairs or new work the Church needed. Essentially, we became the Church carpenters.”

One architect who fully understood Eliel Saarinen’s design philosophy was his son, Eero Saarinen. Eero Saarinen was immersed in the collaborative and design focused community of Cranbrook, and he began to collaborate with his father early on in his career. “He did not reject his father’s principles but refined them and grew through them.” Chief among the principles inherited from his father was the emphasis on the design of the entire environment. He received much of his early training from his father, but instead of pursuing a formal training through the Cranbrook Academy of Art under direction of Eliel, Eero Saarinen chose to attend Yale University; a move that began his independent career as an architect. Along with his formal training at Yale, Eero Saarinen spent several years travelling abroad, and lived in Paris and Finland before returning to America in 1937. His architecture exhibits a clear influence of the International Style and the principles of Scandinavian functionalism. However, Eero Saarinen did not agree with the rigid mold of the International Style and decided to work within his own flexible interpretation of Modernism.

Eero Saarinen continually reexamined his architectural imagination, resulting in a diverse set of built objects. David G. De Long, emeritus professor of architecture at the University of Pennsylvania co-edited a book and DVD, Eero Saarinen, that examines Eero Saarinen’s many projects. He discusses the variety of Eero Saarinen’s designs and says, “Those baffled by its seeming inconsistencies are perhaps too closely bound by the current notion of style as a matter of choice, as something used to ‘style’ a building almost in the manner of applied decoration.” Rather, Eero Saarinen’s style is that which embodies the modernist movement: new forms for new functions, and the use of new technology and

Mid Century modern architects departed from the application of surface decoration as a defining architectural strategy and shifted their artistic purpose towards larger-scale thoughts about the nature of space itself. These architects looked back to what Eliel Saarinen designed at Cranbrook in regards to the combination of simple, honest materials to create a unique space. They also learned from his sculpting of the entire campus to house his built architecture, as a way for them to plan and craft new sites and not simply placeless architecture. One of the most influential effects of Saarinen’s work at Cranbrook is the emphasis on movement and visual interruptions with art objects as termination points.

22 Alan Wunderlich, Interview by Caitlin Wunderlich, at Mariners’ Church, February, 2013.


24 Imbd

25 Imbd. International Style Architects like Le Corbusier in France and Ludwig Mies van der Rohe in Germany, designed rectangular buildings with flat roofs, glass curtain walls, steel frames, wide open interiors, and without any type of ornamentation. A common criticism of International Style architecture is that it is ‘placeless,’ the buildings do not relate to their surroundings and could be dropped in any locale. Scandinavian Functionalism emphasizes architecture that reflects the building’s purpose; design and function should work in tandem to create a unique space.

new materials to achieve this objective.\textsuperscript{27} Eero Saarinen explored architecture as a way for him to craft space and manipulate views, much like his father achieved at Cranbrook. Eero Saarinen, like other modern architects, utilized this new definition of craft in architecture while still retaining the high quality of work and attention to detail which many proponents of the Arts and Crafts Movement sought in the form of traditional craft items. These architects carried that ideal to modern materials and the creation of modern spaces.

Eero Saarinen’s General Motors Technical Center (1956) in Warren, Michigan is similar to Cranbrook; the design of the architecture is carried through the entire site of the campus. The campus is divided into east and west by train tracks, and Eero Saarinen’s design is fully realized on the west campus. General Motors originally contracted Eliel Saarinen for the campus, but with the start of World War II, the project was halted so General Motors could help in the war effort.\textsuperscript{28} Once they were ready to restart the project, Eliel Saarinen had passed away and the project was given to his son Eero Saarinen.

Eero Saarinen incorporated some of his father’s original plans, but ultimately he put his own mark on the design. As you approach the campus on Mound Road, the campus is neatly enveloped by rows of trees and precisely trimmed shrubbery. The viewer experiences a thick wall of foliage and sees only the slight suggestion of buildings beyond. Moving through Eero Saarinen’s intended main entrance, you pass through the modular gate with a rectangular glass booth. An identical entrance to the north would have mirrored this entrance, but it was demolished in the 70’s to create a new parking lot.\textsuperscript{29} The entrance is not centered on the large water feature beyond, which suggests that the second entrance would have balanced the design of the west campus. The entrance gate is simple and clean, and introduces the geometric pattern Eero Saarinen develops further on the campus.

Once you pass through the gate, the campus unfolds before you. But, it becomes clear immediately that the campus was designed around the company’s product: the automobile. Sidewalks accommodate great numbers of people walking to and from the buildings, but the layout of the campus focuses on how the automobile


moves through space. Therefore, Eero Saarinen included many one-way streets divided by medians of greenery. Roads, much like the buildings, are designed on a grid pattern. Visitors drive through the entrance gate and are confronted by a median placed in front of a large rectangular water feature. Eero Saarinen manipulates the path the automobile must take through the campus, which forces drivers to pause, shift direction and drive along the side of the water.

Eero Saarinen worked with Thomas Church to design the landscape of the site. This manipulation of the landscape to move the visitor through space is what modern architects learned from the crafting of space done at Cranbrook thirty years earlier. In fact, Eliel Saarinen originally designed the largest water feature to be an organic shape, much like Lake Jonah on Cranbrook’s campus. The organic shape would have been in direct contrast with the rigid geometric shapes of the buildings. However, once Eero Saarinen took over, he redesigned the water feature to follow the grid pattern of the buildings and the landscape. Along with the man-made water features, he arranged the trees to serve as barriers to move from one space to another. This arrangement of either single rows or double rows of trees also allowed him to disguise the necessary parking lots. Eero Saarinen, like his father Eliel at Cranbrook, sculpted the landscape to receive the architecture.

Buildings on the west campus are relatively low, under three stories. Each building has a specific function, and the buildings work together to form an assembly line approach; although it is mainly an assembly line of design, research, and prototype testing. Product manufacturing is on a separate campus. Eero Saarinen also constructed a series of underground tunnels so people could circulate between the various buildings easily during Michigan winters. More importantly, these tunnels allow employees to secretly transport new prototypes from development to the dome to show to potential buyers and General Motors Executives. Because of General Motors’ prestige, the campus is under high security and this series of tunnels is necessary to keep potential products out of the competitors’ hands.

Eero Saarinen demonstrates an influence of the International Style architecture; by incorporating the glass curtain wall with exposed I-beams. Modern architects embraced the idea of allowing the physical structure of the building to serve as a part of the design, instead of covering the structure with useless accessories. Both steel frame construction and curtain walls are inherently modern and industrially produced. Here Saarinen is making the statement that these industrial materials create sleek and stylish buildings that along with the manipulated landscape, are an artform.
Unlike many buildings by Ludwig Mies van der Rohe, an architect whose work was later dubbed ‘The International Style,’ Eero Saarinen did not create a completely translucent curtain wall. Eero Saarinen incorporated gray porcelain enameled steel panels, opaque glass, and translucent glass at standard intervals. However, the most dramatic separation from Miesian architecture is the wall of vibrant glazed brick at the end of each building. According to Peter Papademetriou, “The Cranbrook traditions of craft can also be seen in such diversions from pure Mies as the brightly glazed color bricks used on end walls, the ornamental metal craft of monumental staircases.” Two staircases on campus are another area in which Eero Saarinen combined art and structure. Both staircases are built from large solid sheets of stone suspended by thin steel poles; the composition serves as structural decoration on the first and second floor lobbies. Even in functional elements like a necessary staircase, he continues the design language and allows the natural beauty of the individual materials to create an object that incites interest.

In 1955, Industrial Design magazine published an article titled “Design in Detroit” and commented on the new General Motors Technical Center as “an integrated interpretation of a great industry: the crisp building forms and precise detail of the glass, steel, aluminum and enamel facades convey the spirit of technology and the machine; the brilliant glazed brick end walls in nine gala colors are a reminder of craft and the skill of the hand.” The bricks were glazed and fired in an onsite kiln, then transported to the masons for direct installation. This design element resembles the custom designed bricks Wirt C. Rowland used in the Guardian Building, except this time Eero Saarinen applies the colorful bricks to a steel framed modern structure.

Eero Saarinen's design was all encompassing. The interior of each building features a main lobby in the front with offices to the back or upstairs. Visitors are welcomed into these open lobby areas, and the workstations or planning areas are concealed. Although each lobby is unique, each contains glass walls, glazed brick, stone elements, wood fixtures, and metal; every material is exposed and appreciated for its own identity. The material is not ornately carved or painted, but utilized as ornament in its own right.

The Wunderlich Company was also hired to work at the General Motors Technical Center. They installed wood paneling in executive conference rooms as well as the large auditorium. A common theme throughout the Technical Center is the creation of unique spaces. Instead of designing an employee auditorium with standard seating and acoustical tiles, Eero Saarinen chose to incorporate expensive and luxurious woodwork that envelops the employee into the meeting or discussion. The woodwork wraps from the stage up and across the ceiling and down to the light booth. On either end of the aisle the ceiling wraps down giving employees the sensation of being physically wrapped and enclosed in the rich wood.

The Wunderlich Company was able to provide a variety of woodwork depending on the design of the building. At Mariners’ Church for example, the Wunderlich Company was hired to create a look that was reminiscent of the time the Church was originally constructed. They supplied Mariners’ Church with the rich dark wood and ornamentation they saw elsewhere in the Church. At the General Motors Technical Center, the Wunderlich Company abandoned the ornate woodwork and faced the auditorium in a maple wood using a tongue and groove technique similar to the installation of wood flooring. This type of woodwork coincides with the design language Eero Saarinen implemented on the site.

Although there is no ornament in the traditional interpretation, Saarinen still incorporated craftsmen to work on the structure of the building. Meaning, the craftsmen did not apply their work to the surface simply as design elements, but their work served as part of the form and part of the space. Harry Bertoia, for example, was commissioned to create a large screen in the cafeteria to separate the entryway from the dining facility. Another product of the crafts tradition at Cranbrook, Bertoia is world famous for his metal sculptures, and here Eero Saarinen recruited him to create a beautiful accent wall that served as both aesthetic and function.

Metal screen done by Harry Bertoia for the dining room at the GM Technical Center.

Auditorium carpentry by the Wunderlich Company.
This auditorium directly references the dining room of Eero Saarinen’s adolescent home at Saarinen House in Cranbrook. The Saarinen Dining Room is world renowned for its comprehensive, all-inclusive design. Eliel Saarinen transformed the square room by creating an octagon with golden wood walls. Visitors walk into the dining room and feel the walls wrap around them, much like Eero Saarinen’s later design for the General Motors Technical Center auditorium.

The architecture on the campus is innovative. According to the Magazine of Building, covering the progress of the campus in 1951:

He blazed an industrial trial into the no-man’s land of architecture which today lies between modern romanticism and the new classicism. He accomplished this by concentrating on two things: 1) Making the building work mechanically by integrating the disciplines of such matters as air conditioning and lighting with the classic pure shapes and expressive proportions of the structure. 2) Retaining the romantic heritage by using vivid hues and special glazes not seen since the heyday of the Persians. “If a large building today must be impersonal,” he seems to have said, “let it at least have an exciting impersonality.”

Integrating design and function was key for Eero Saarinen. One of the remarkable features of the design of the General Motors Technical Center is the fact that the building has all of the technical innovations and all of the necessary mechanics of a high-end industry, but everything is incorporated into the design language. This is part of Eero Saarinen’s crafting of space—no matter where you are on the campus or in a building, the design never disguises the nature of the campus, rather it glorifies the industry it represents. Eero Saarinen designed a state of the art campus for a revolutionary company.

In the mid 20th century, Detroit emerged as an epicenter of modern design. Detroit industry is the reason owners chose the new modern style to reflect their company’s future progress, like the General Motors Technical Center. Similarly, institutions like Wayne State University designed new buildings to create a campus for the future. Minoru Yamasaki, another Detroit mid-century modern architect, is noteworthy for the design of the World Trade Center (1973) in New York. However, before completing the two towers, Yamasaki completed several landmark buildings in downtown Detroit; many of which are on Wayne State University’s campus. Wayne State hired Yamasaki and his design firm, Yamasaki, Leinweber & Associates, to design the plan for the burgeoning campus. They cut off streets and created a sort of mega block, about ½ mile by ¼ mile, within the city. During construction Yamasaki parted with Leinweber to form his own company, Yamasaki and Associates. His independent company would later design internationally praised Detroit buildings like the Michigan Consolidated Gas Company Building (1960-63).

Yamasaki designed several buildings on this well planned pedestrian friendly bloc, including the iconic McGregor Memorial Conference Center (1957-58). Unlike Saarinen’s General Motors Technical Center, the site plan was not created for the automobile, rather to create a pedestrian friendly area in the motor city. Unlike many large cities, Detroit is dominated by the car and accessibility to parking lots. People do not walk to get from one side of the city to the other—they take their personal cars. Yamasaki argues that the architecture chosen and arranged on this block fulfills “the necessity for serenity, particularly in this environment—as a background that will invite intellectual activity, and as a haven from the confusion that industrialization has brought to society.”

The McGregor Conference Center represents Yamasaki’s break with the harshness of the International Style architecture, and features his exploration in the play

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of light and shadow. Yamasaki abandons the 90-degree angles, exposed steel frame, and glass curtain wall for a softer modern building. The building is situated toward the center of the block surrounded by other Yamasaki buildings. The McGregor Conference Center was his first building following an extensive international trip; he said, “I tried to express some of the architectural influences I had experienced. Among my goals was to create a beautiful silhouette against the sky, a richness of texture and form, and a sense of peace and serenity through interior spatial arrangement and sensitive landscaping.” And like many modern architects, Yamasaki manipulated the exterior landscape to complement the architecture.

McGregor Conference Center (1957), Minoru Yamasaki.

Situated on a stepped platform, the entrances of the building are on the north and south, the north overlooks a concrete sculpture courtyard with vegetation beyond, and the south overlooks a small rectangular pond. The east and west sides of the building are clad in glass which opens up to lush vegetation on either side. Like Eliel Saarinen’s landscape at Cranbrook, Yamasaki incorporates sculpture as a part of the design of the site, something that was originally part of the Arts and Crafts landscaping tradition. Yamasaki’s planned landscape surrounding a modern glass building is also similar to the design of Eero Saarinen’s General Motors Technical Center. Eero Saarinen’s site plan is stretched over a larger campus, and the landscape and buildings respond to the larger scale of that site. In contrast, Yamasaki’s site plan is miniaturized. Yamasaki’s buildings are pushed closer together in deference to the pedestrian. Yamasaki’s buildings and crafted landscape are scaled to the human, not the monumentality of an impressive corporation.

Contrasting strategies of shifting scale utilized by both modern architects can be exhibited in the water features of both sites. As was discussed above, the west campus of the General Motors Technical Center is situated around a vast rectangular water feature. Inside the water Eero Saarinen incorporated man made islands with trees and other foliage to break up the monotony of the blue water. He also incorporated a series of fountains that occupy about 1/6th of the water. Yamasaki incorporated a rectangular pond that is appropriately scaled to the McGregor Conference Center. Inside the pond are a series of small islands, some of which feature greenery or sculpture. Emerging from the water are groupings of rough, craggy rocks, which create a sharp contrast with the smooth form of the undisturbed water, as well as the smooth glass and stone façade of the building. Both architects understood the close relationship with a planned and constructed landscape and a glass building as a means to connect the interior and exterior spaces to alter the experience within the building.

The design of the McGregor Conference Center is craft—the crafting of a unique space rather than applied ornament. The north and south facades are covered in a white travertine with a vertical grain. Presumably the entire building is built from a steel frame, but Yamasaki covers the frame with smooth white travertine. This gives the building a softer, yet still streamlined design. In the center of both the north and south faces, Yamasaki places the entrances to the building inside larger glass windows that extend from the platform plane to the roof and culminate in triangular arches. The emphasis on the vertical lines stretches the otherwise predominately horizontal building.

The lobby of the building is completely enclosed in glass forming a clear sight line from the reflection pond on one side to the sculptures and greenery on the other. The two-story lobby features a unique triangular skylight pattern, which is repeated in the second floor overhang, and allows the lobby to experience sunlight throughout the entire day. This use of glass as the skin of the lobby creates the illusion that people can walk through a promenade between two conference areas while still protected from the natural elements.

Yamasaki incorporates the triangular form throughout various elements of the design, which is part of his design language. Over each of the entrances artist Lee Du-Sell of New York created polished aluminum grates with an interlacing triangle pattern that echoes the overall theme of the building. The metal grate serves both as a delineation for the building's entrance as well as a level of ornamentation. Unlike the Guardian Building's superfluous application of ornament to the finished building, Yamasaki incorporates ornamentation into the form as a part of the building itself. He approaches the building not as a rigid geometric box, but a form that integrates both the interior and exterior, relying on the form of the building and the created and crafted landscape to serve as the decoration. This is the crafting of space that emerged from traditional craft.

Concurrent to Yamasaki's design of Wayne State's campus, an undercurrent of the traditional craft revival occurred in some buildings, most notably the Kirk in the Hills in Bloomfield Hills. This is one of the last buildings designed by the architect of the Guardian Building, Wirt C. Rowland before his death in 1946. As expected, the rich application of surface decoration in the Guardian Building is mirrored in this later Presbyterian Church.

Kirk in the Hills is a gothic style church based on the design of the Melrose Abbey (1246) in Scotland. Gothic Architecture can be seen in most large European cities, but is not typical for America. The exterior façade of the Kirk embodies many of the traditional gothic characteristics including the emphasis on vertical lines and pointed arches articulated in stone.


Colonel Edwin S. George saw the need for a Presbyterian Church in the area, and in 1947 he gifted his home and estate to establish the Kirk. George also chose his friend, Wirt C. Rowland, to design the building. Rowland passed away before construction began, but his designs were realized through the work of the second architect, George D. Mason. Rowland's passion for ornamentation is again evident in the interior of the Kirk.

The interior of the Kirk does not exhibit the architect's unique manipulation of space because it is based on the traditional basilica form. The focus of the interior is the lavishly decorated surfaces. The interior features the work of many craftsmen including beautiful stained glass windows and Pewabic Pottery tiles in the floor depicting religious scenes and the Kirk itself. The floor is made up of inlaid marble as well as slate throughout the majority of the nave. Artisans also created an ornate metal gate separating a side chapel from the main nave, and delicate metal light fixtures that suspend from the high vaulted ceiling. Corrado Parducci, a sculptor who created many of the sculptures for the Guardian Building, also created many of the sculptures inside the Kirk and on the exterior. One of the dominant features of the interior is the incredible amount of rich woodwork.

The Wunderlich Company was hired as the carpentry contractors for the Kirk. In fact, Wunderlich actually built parts of the Kirk twice. Construction began in 1951 and in 1957 the roof of the Kirk caught on fire. Most of the roof was destroyed, including the sculpted wooden arches and buttresses. The majority of the woodwork is white oak and adds warmth and personality to the gothic stone interior. Inside the nave, stone walls extend from the floor up to the gridded wooden ceiling. The clerestory features eight arched stained glass windows interrupted by wooden buttresses that arch up to support the wood trusses and roof. Here the Wunderlich Company revived the style and level of craft they were long known for. Similar to Mariners' Church, the woodwork at Kirk in the Hills is one of the most prominent features of the design and features ornate details and decoration. Even though this building was completed only a few years after the General Motors Technical Center, the Wunderlich Company has returned to the style and execution the Company was founded on.
Many gothic cathedrals use a ribbed vault ceiling made of stone to distribute the weight of the building. The Kirk however, replaces some of the stone with rich wood. The woodwork here is dual purposed, it does work like the other craft elements in providing ornament to the stone structure, but it also has a structural function to carry the roof. Everything inside the Kirk is made to look handcrafted, although the majority of it was industrially produced. The incredible amount of stone, for example, would have been hand cut in the original Melrose Abbey, but here the clean lines suggest that all of the stone was saw cut.

Kirk in the Hills was built at the same time as Yamashiki's McGregor Conference Center. However, these two buildings create a remarkable contrast in the architectural continuum. While the McGregor Conference Center embodies the modern age with the use of simple materials to create a unique space, Kirk in the Hills seeks tradition. There is a clear loop back to the elegance of the handcraft, or materials that are produced to look like the traditional handcraft.

Other buildings in Detroit combined both the traditional craft items and the modern materials with the modern interpretation of space. Shaarey Zedek Synagogue (1962) is another Detroit building rich in history and steeped in tradition. The Synagogue's newest 40,000-acre location in Southfield is the result of extensive design work and planning. The architects, Percival Goodman and Albert Khan Associated Architects, worked hand and hand with the committees to create the sanctuary, social hall, and facilities for learning. The main sanctuary was designed to mimic Mt. Sinai on the exterior and the interior. The exterior of the building features a steep pinnacle clad in concrete and separated by stained glass to another smaller concrete pinnacle. There are ten stone projections on the smaller façade that symbolize the Ten Commandments, which were brought down from the Mountain by Moses. A testament to early modern architecture, the architect designed the exterior to mirror a mountain in both design and material.

The Wunderlich Company was commissioned as the carpentry contractors to tackle the structural challenges of the exterior façade. First, the structural steel frame was constructed as the bones for the building. Then Wunderlich carpenters tied off to the steel frame to place added support for the designed façade. They used wood planks custom cut in a tongue and groove interlace technique to support the weight of the poured concrete. Concrete is used by many modern architects because of its plasticity; it is able to be molded into any shape the architect designs.
The interior of the sanctuary is where the true craftsmanship and beauty is fully realized. Shaarey Zedek returns to the tradition of craft with the incorporation of beautiful stained glass and woodwork. Mount Sinai is still the inspiration for the interior view, and the vaulted ceiling progressively extends up in undulating panels to the peak where the ark sits below. In the creation of the sanctuary, the architect reversed the form of the mountain with the sleek stone on the exterior and the jagged interior that resembles the rocky surface. The interior has overly scaled spatial volumes in the sanctuary. This creates a unique and interesting space, which fulfills the modern interpretation of craft. The stained glass, a traditional craft element, was done by Robert Pinart and works with the form of the building to symbolize the burning bush when God spoke to Moses. Everything within the interior works together to draw the eye to the ark and up to Heaven.

Behind the ark are two immense walls of wood joined at a 90-degree angle done by the craftsmen at the Wunderlich Company. Wood panels are adhered to vertical pillars as if to build a solid wall behind the ark. Each panel is angled 45 degrees downward to contrast with the upward angle of the sanctuary, and to complete the triangle theme consistent throughout the complex. The wall appears to be unfinished, which is important not only for the design of the sanctuary but also for the Jewish custom to leave elements of the building unfinished—looking in mourning for the loss of Zion. It appears as if the Wunderlich Company constructed the walls and removed every other plank to create a permeable and incomplete surface. However, from a purely aesthetic view, the creation of this wall adds texture to the space and corresponds with the jagged surfaces on the interior.

There are many other details throughout the design of this complex that serve as a testament to craft. But, upon entering the doors of the facility, the viewer is overwhelmed with the amount of rich woodwork. From the doors housing more fantastic stained glass, to the seating areas, and finally to the elaborate area surrounding the ark, Wunderlich Company carpentry played an extensive part in implementing the Architect’s design. Similar to the Guardian Building and Mariners’ Church, Shaarey Zedek features elaborate stained glass and luxurious woodwork that exemplify traditional craft. Shaarey Zedek is also very modern and the overall design of the complex is similar to Yamaski’s McGregor Conference Center. Both buildings aim to create interesting spaces with modern materials, and take into account the individual’s experience in the space. However, unlike many modern buildings especially the General Motors Technical Center, Shaarey Zedek does not devote much attention to the manipulation of the landscape. The focus of Shaarey Zedek is the interior sanctuary.

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According to Alan Wunderlich, “Kirk in the Hills and Shaarey Zedek stand alone as feats of architecture and engineering. We could venture a guess that a structure such as the Kirk will probably never be duplicated in this country, due to the cost. Both the woodwork at Shaarey Zedek and the Kirk serve as truly an old world replication of material and craftsmanship. ”46 Wunderlich notes the changing nature of craft; a type of craft the Wunderlich Company specialized in that is rarely reproduced today. As a result, the Wunderlich Company, and other specialized trades, saw a lower demand for their high quality installations. The Wunderlich Company closed its doors in 1991.

Architecture follows the cultural zeitgeist. As industry expanded, modern architecture was sought out to be the face of successful corporations or institutions. But, modern Detroit architects did not abandon the established tradition of Detroit craftsmanship. Modern architects looked back to the work of Eliel Saarinen at Cranbrook, and built upon the principles of the Arts and Crafts Movement to transform space and the individual’s experience of that space.

It is difficult for society to understand a sculpting of space as being on par with handcraft and the traditional craftsmen. It is a shift in the architectural paradigm, which will continue to evolve well into the future. As is seen with the design of Kirk in the Hills, some patrons of architecture perceive the redefinition of craft as a break with tradition rather than understanding it as a part of the architectural history continuum.

46 Alan Wunderlich, Interview by Caitlin Wunderlich, April 10, 2013.

Works Consulted


