

# Eliel Saarinen, Eero Saarinen, and the Legacy of Modern Architecture in Michigan

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## Introduction: The Saarinens

Eliel Saarinen (1873-1950) and Eero Saarinen (1910-1961), father and son, led the Modern movement in the United States from 1922 to 1961. Their architectural solutions looked forward not backward, and neither adhered to anyone's school, architectural style or practice but their own. The Saarinens' designs pleased their clients and each design represented an advancement in their creative processes. The Cranbrook Museum and Library (1942) for Eliel, the Gateway Arch in St. Louis (1948) and later the TWA Flight Center (1962) for Eero, and their collaborative work on the winning design for the Smithsonian Art Gallery competition (1939, unbuilt) typify this synthesis of originality and fulfillment of the client's interests and desires. In their example of an active "search for form," the Saarinens, and particularly Eero Saarinen, were models of independent practice for architects in Detroit and southeastern Michigan.

Eero's American story begins with a competition won by his father. Most students of architecture know of Eliel Saarinen's acclaimed submission to

the *Chicago Tribune* Tower competition in 1922. His drawing won the second prize of \$20,000. This money enabled him to move his family and his practice to America. Perhaps not quite so well known, his competition drawing had an immediate influence on the design of skyscrapers, as is visibly plain in subsequent works by Raymond Hood, winner of the first prize in the *Chicago Tribune* competition, and in the work of other architects. When Eliel agreed to teach a one-month course in architectural design at the University of Michigan in 1923, he was a leading advocate for modern (as opposed to eclectic) architecture. Professor Emil Lorch, dean of the College of Architecture, wanted this aesthetic brought into the classroom at Michigan. An unexpected boon for Eliel was discovering at Michigan the lasting satisfaction of combining teaching with his own practice.<sup>1</sup>

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1. *Michigan Technic* 37, 4 (May 1924), p. 6, published student work that also was featured in a traveling show at the Akademie der Kunste zu Berlin. See Nancy Ruth Bartlett's monograph *More Than a Handsome Box: Education in Architecture at the University of Michigan 1876-1986*, Ann Arbor: University of Michigan College of Architecture and Urban Planning, 1995, pp. 60-61.



**ELIEL AND EERO SAARINEN OUTSIDE OF CRANBROOK ACADEMY MUSEUM & LIBRARY BLDG, 1941**

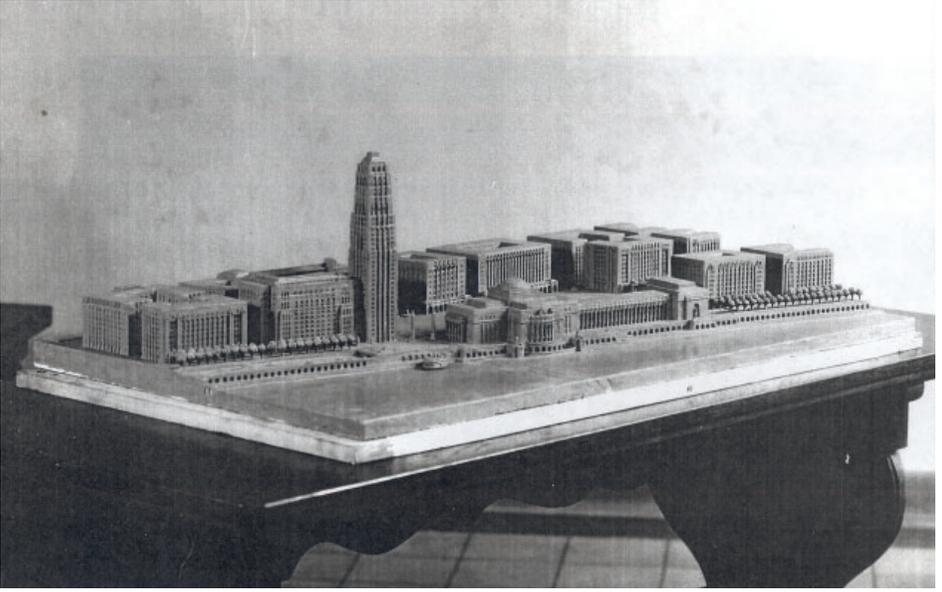
*Courtesy of Cranbrook Archives*

Almost immediately, he was encouraged to stay on. In December 1923, Saarinen was approached by the Detroit Chapter of the American Institute of Architects to design a war memorial auditorium and a government-business complex along the river at the foot of Woodward Avenue. This commission had been arranged by two powerful Detroit leading men—George G. Booth, publisher of the *Detroit News*, and Albert Kahn, owner of one of the largest architectural firms in the country. The careers of both Eliel and Eero Saarinen were influenced by these figures. Eliel's proposal for the Detroit riverfront appeared in the *Detroit News* in June 1924. His design included a tall building for government offices, a

monumental memorial auditorium, the inclusion of an underground parking structure, and below-ground-level throughways for traffic. Though this proposal went unbuilt, Eliel continued to be involved in Detroit City planning. Later, in 1947, his and Eero's plan for the Detroit Civic Center guided development along the riverfront in the 1950s.<sup>2</sup>

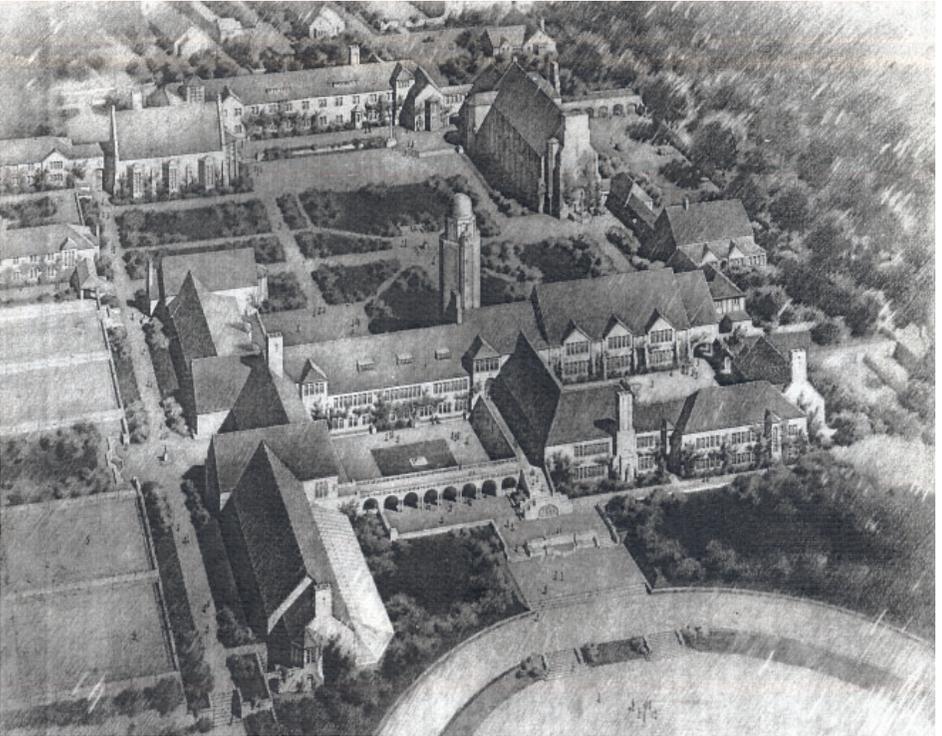
The rapid production of the drawings and the exceptional beauty of the riverfront design greatly pleased George Booth. He

2. For example, a photo of the Veterans' Memorial Building in the Civic Center, taken from the eagle side, appeared on the cover of the October 1950 issue of the *Monthly Bulletin of the Michigan Society of Architects*. An auditorium and convention center would soon follow, all part of the Saarinen plan for the site.



**MODEL OF RIVERFRONT MEMORIAL AUDITORIUM & CIVIC CENTER, 1924**

*Courtesy of Cranbrook Archives*



**ELIEL SAARINEN'S AERIAL DRAWING OF CRANBROOK CAMPUS, 1926**

*Courtesy of Cranbrook Archives*



**ROBERT SWANSON WITH ELIEL AND EERO SAARINEN VIEWING THEIR SMITHSONIAN MODEL**

*Courtesy of Cranbrook Archives*

enlisted Eliel's participation in a deeply contemplated project for his large estate at Cranbrook in Bloomfield Hills, some 20 miles north of Detroit. Here was the perfect match of client and architect, as Booth had no less an aspiration than to recreate the American Academy in Rome on his Michigan property, a plan that Saarinen not only comprehended but also trusted Booth to carry through to its conclusion. By spring of 1925, Eliel presented to him designs for the Cranbrook Academy of Art, including a scale model created by his wife, Loja. Eliel worked out a vaguely collegiate Gothic architectural style for the art academy with his students at the University of Michigan, turning the classroom into a laboratory for collaborative work. Later on, he used the same educational approach at Cranbrook. George Booth's son, Henry Booth, at the time an architectural student at the University of Michigan, participated in this ferment, and at the time of his graduation in 1924, Henry joined with his close friend and fellow student, J. Robert F. Swanson, to initiate the firm Swanson and Booth. Swanson and Booth were needed at

Cranbrook to handle the increasing number of building projects there. They would be designing ancillary buildings for the Gothic church that was already being built on the Booth estate and there was an increasing demand for residences for family and friends on the Booth-owned properties adjacent to it.

Eliel Saarinen took up residence in Michigan at an auspicious time for George Booth. Booth had been working out his ideas for an art academy with Marion LeRoy Burton, president of the University of Michigan (1920-1925). Their deep friendship grew initially out of conversations involving the feasibility of developing an art school to augment the architecture program at the University of Michigan, but the advent of Eliel Saarinen altered the dynamic of his thinking, and the entire concept was altered further when President Burton was stricken with heart trouble in November 1924 and died in February 1925. As a result, Booth adjusted his plans by putting aside the art academy until he had a better sense of how to administer and staff it. In the meantime, he had given the contract for



**THE BROADCASTER STAFF**

*Bentley Historical Library,  
University of Michigan*

OUR SLOGAN, "AIM HIGH"



**"AIM HIGH", THE BROADCASTER, 1925**

*Bentley Historical Library, University of  
Michigan; original image by Eero Saarinen*

the Cranbrook School for Boys to Swanson and Booth in May, and it was J. Robert F. Swanson who was the go-between, negotiating with Eliel Saarinen to join Swanson and Booth as a consultant on the school project.

Eero Saarinen moved with his family to Cranbrook in the fall of 1925. He was just fifteen and he was still learning English. His struggle with the language did not deter his enthusiasm for America, however. In fact, as an eighth grader in Ann Arbor, Eero had been art editor for his school publication, *The Broadcaster*, at the newly opened (1924) experimental University High School.<sup>3</sup> His drawings show a young man of talent who identified with the mission and spirit of his school. He brought this same readiness to the new environment at Cranbrook. In 1926,

his father took over planning for the boys' school after the firm of Swanson and Booth was dissolved on June 1. J. Robert F. Swanson's marriage to Eva Lisa "Tipsan" Saarinen in May set him on his own extraordinarily successful career. By 1927 he had built his own house, Tower Knoll, on five wooded acres about one-half-a-mile from Cranbrook. The senior Saarinens and Eero moved in with the Swansons in October 1927 and stayed until Saarinen House was finished in mid-1930.<sup>4</sup>

As work progressed, the newly formed Cranbrook Architectural Office hired Douglas Loree and Ralph Calder, both former students of Eliel's at the University of Michigan. Once the designs were well along, Eliel invited his Hungarian architect friend, Geza Maroti, to help him with the sculptural ornamentation of the buildings. Maroti encouraged young Eero by putting him to work designing animal forms for metal gates, ceramic

3. *The Broadcaster* published six issues in school year 1924-1925. As art editor, Eero produced original linoleum cuts and drawings for each issue. His work was noticed in the May 23 issue of *The Michigan Alumnus* in an article that praised the student staff. Eero's portrait of President Burton was used as the centerpiece in a second article in the same issue of *The Michigan Alumnus* about Burton's last report on the State of the University.

4. "'Tower Knoll,' Bloomfield Hills, Michigan. J. Robert F. Swanson, Architect." *Architectural Record*, 64, 1 (July 1928), pp. 49-54. See p. 49.



**PORTRAIT OF PRESIDENT BURTON, 1925**

*Bentley Historical Library, University of Michigan; original image by Eero Saarinen*



**OUR SHOP**

**"OUR SHOP" THE BROADCASTER, 1925**

*Bentley Historical Library, University of Michigan; original image by Eero Saarinen*

tiles depicting athletes in poses,<sup>5</sup> a crane design for the dining hall chairs, and for the exterior of Page Hall Common Room, a series of grotesque faces and abstract designs for its porch columns. Eero designed ceramic tiles for Swanson's residential commissions, and furniture for the master bedroom and ceramic tiles for the back patio at Saarinen House. This accomplished, youthful work attracted attention. In 1930, George Booth arranged for Eero to design all the furniture for the Kingswood School Cranbrook building, including its public spaces, classrooms, offices, dining hall, auditorium, library and dormitory rooms. In a gesture unique for him, he gave Eero a share of any profits derived from the commercial production of any of these

designs, essentially turning Eero into an industrial designer.

This work at Cranbrook does not present a complete picture of Eero's ambition or his expertise in these years, however. He had won a matchstick design contest and an award for soap carving, but readers of the *Michigan Architect and Engineer* magazine (published by the Detroit Chapter of the AIA) might have been astonished to learn that Eero Saarinen, at the age of fifteen, had entered a national competition sponsored by the American Gas Association. Eliel had taught Eero how to prepare the necessary drawings and had vouched for his readiness to master the technical details involved in designing and installing a gas system for a six-room house. Nine prizes and four honorable mentions were offered but (unusual for him) Eero did not place in this competition.<sup>6</sup>

5. One of his terracotta tiles, "The Wrestlers," was included in the International Exhibition of Ceramic Art, sponsored by the American Federation of the Arts and circulated to eight major art museums east of the Mississippi, including Detroit, from October 1928 to September 1929.

6. *Michigan Architect & Engineer* 8, 8, (August 1926), p. 101.

## ***Eero Saarinen at the Center of Controversy***

Eero Saarinen's chief influence on Michigan architects was his perspective on contemporary architectural history. He understood the trends in modern architecture thoroughly, in part from personal experience, and he could express their implications with a persuasive simplicity of language. His lecture to the gathering of members of the Michigan Society of Architects and the Detroit Chapter of the AIA in 1950 was a model of tact, lucid terminology and common sense. Even better, it confirmed for this group that they were all on the right track as practicing architects.

His informed perspective had been solidified by events during a complicated four-year period from 1928-1932. In these years, he graduated from high school, studied sculpture in Paris, returned to design furniture for Kingswood, and enrolled in the Yale University School of Architecture. At Yale, he completed the five-year course in three years and carried away the highest prize at his graduation in 1934, the Charles O. Matcham Fellowship that funded eight months of travel in Europe. However, it was during those four crucial years that European modern architectural ideas established a beachhead at the Museum of Modern Art in New York City. Eero was just the right age to benefit from the intense controversy that erupted at the founding of the Museum of Modern Art in 1929. Eero was at the center of this controversy because, at this time, his father was the leading representative of modern architecture in the country.

It was not an accident that the Museum of Modern Art curators, when introducing the concept of an "International Style" in architecture in 1932, selected Eliel Saarinen as their point of attack. He advocated for the broad, progressive American architectural tradition that prized technical innovation, experimentation with materials, and the constant development of new methods of building. His widely reported views

and the immediate impact of his *Chicago Tribune* drawing on skyscraper design made him the logical target for these New York intellectuals. To introduce the concept of an "International [meaning European] Style" in architecture to Americans, the principal figures at the Museum of Modern Art, Alfred H. Barr, Jr., Philip Johnson and Henry-Russell Hitchcock, had to undermine the achievements of the traditionalist American architects, and at this time Eliel Saarinen was very much in the forefront of this group.

## ***Eliel Saarinen: The Leading American Modernist***

By 1928, Eliel's Cranbrook School buildings were attracting wide attention for their originality, delicacy of design, masterful use of materials, and craftsmanship in construction. His work led to an invitation from New York to join the committee then planning the 11th Industrial Arts Exhibition at the Metropolitan Museum of Art. This exhibition set a high mark for its time, because it was a culmination of a long effort at the Metropolitan Museum to join interior design with industrial production.<sup>7</sup> The chosen architects, who were also designers, were asked to take responsibility for the total environment of their designated "room" (a woman's bedroom, a man's den, a dining room, and so on), arrange the fabrication of all the objects to go in it, and supervise the installation. Eliel had been doing this kind of total design routinely from the beginning of his career in Finland in 1896.

He was commended, also, for his cordial committee work behind the scenes. He had proposed the overall layout of the nine rooms (unanimously accepted), led the planning sessions (described as

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7. See Richard F. Bach's "American Industrial Art," pp. 19-29, among the introductory materials of the exhibition catalogue. "The Architect and the Industrial Arts: An Exhibition of Contemporary American Design: The Eleventh in the Museum Series, New York February 12 to March 24, 1929," New York: The Metropolitan Museum of Art, 1929.



**CHICAGO TRIBUNE TOWER DRAWING, 1922**  
*Courtesy of Cranbrook Archives*

focused and purposeful), and was the first to present a plan for his (dining) room to the planning group. The exhibition was so popular that the closing date was extended to September 2, and the dining room proved to be among the most admired of the rooms, ahead of rooms created by exceptional architect-designers like Raymond Hood, Ely Jacques Kahn, and Ralph Walker.<sup>8</sup> The show also had a direct impact at Cranbrook. In mid-1928, George Booth rearranged the building schedule so that Saarinen could design a house on the campus for himself to accommodate the dining room from the Met show.

And there was yet another recognition, this one of an international scope. In 1929, Eliel Saarinen was called to act as a juror for the international competition to design a memorial lighthouse for Santo Domingo that was also meant to house the bones of Christopher Columbus. For the first round, he traveled to Madrid to join the other jurors, Raymond Hood and Horacio Acosta y Lara. For the second round in 1930, he traveled to Rio de Janeiro, this time with Frank Lloyd Wright, who had replaced Raymond Hood. His encounter with Frank Lloyd Wright was the beginning of an enduring relationship of these architect-designer competitors and academicians when Eliel Saarinen became president of the Cranbrook Academy of Art and Frank Lloyd Wright began his Taliesin fellowship in 1932.

Eliel's involvement with the Metropolitan Museum's exhibition committee brought him into a friendly relationship with members of the Architectural League of New York, the elite practitioners among architects in the country. Ely Jacques Kahn invited him to design the facade and interior spaces for the Richard Hudnut Salon, a six-story office building on Fifth Avenue (for which Loja Saarinen designed area rugs). Even further, the Architectural League of New York, whose

president was Raymond Hood,<sup>9</sup> awarded Eliel Saarinen its gold medal for the year 1930 for his work on the Cranbrook School for Boys. He was invited to mount a one-man show in New York and feted at a banquet in March.

In further recognition of Eliel Saarinen's genius and prominence, he was invited to address the American Institute of Architects' convention being held in San Antonio, Texas. Many were curious about Cranbrook, but they also wanted to hear his views on contemporary architecture. In his address to the convention on April 15, 1931,<sup>10</sup> he explained how the creative art educational atmosphere at the Cranbrook schools and the Cranbrook Art Academy would attract talented young artists from across the country and from around the world. In regard to the subject of "our contemporary architecture," he made two points. First, quoting his fellow architect, Ralph Walker, he affirmed that the truly creative artist had to find his own way:

Recently we had a dinner at the Architectural League in New York. Ralph Walker made a speech. He spoke about the individuals who do research in contemporary architecture. He explained how they go different ways, how they solve their problems differently, and how they look upon things from different angles. He said: "We need those individuals. They are our leaders. They try to find the way for us."

Second, he called upon architects to create new forms for the new times. Past ages—Greek, Roman, Romanesque, Renaissance—had realized fundamental forms for their times, and the same held true for architects today. "This fundamental form is the attractive power which leads the art development towards a coming style," Saarinen

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9. J. Robert F. Swanson said that Raymond Hood came out to Cranbrook "many" times. See the Interview with J. Robert F. Swanson, 1980, Cranbrook Archives, Bloomfield Hills, Michigan.

10. "Address of Eliel Saarinen," in *The Octagon* 3, 4 (April 1931), pp. 6-13, a verbatim report of the address of Eliel Saarinen, Member of the Institute and the Detroit Chapter, at the Sixty-fourth Convention, San Antonio, Texas.

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8. "The Architect and the Industrial Arts," by Helen Appleton Read, *The Metropolitan Museum of Art Bulletin* 24, 5 (May 1929), pp. 146-147.

said. Some architects seemed to better intuit the fundamental form of the time than others, but it was only active and experienced practitioners that could approach it. In his view, the leaders of the International Style had not yet shown any persuasive evidence of feeling the fundamental form of their time. Their architecture was functional, with an identifiable list of shapes and materials, but it had not yet reached beyond a basic practicability. From his point of view, much further experimentation was needed before the International Style achieved a requisite level of maturity:

But, says someone, why all this talking about deep thinking?

Our time is practical! We have to build in a practical way.

Practicability has to decide the form of our architecture.

If a building is practical, it is beautiful. This is what they say.

But I wonder! I wonder if it is so, because we so often see very, very, practical buildings, practical from every angle, practical in every point, and they appear so terribly ugly. They have no proportions, no rhythm, no balance of masses. The color is terrible, the treatment of materials is terrible.

So, I don't think we can say that if a building is practical it is beautiful.

But I think we could say, or rather, *I do think we should say that a building has to be practical to be able to be beautiful.*

And further: *A practical building is able to be beautiful only if the architect has a subconscious sense for beauty, that is: if he is a creative artist.*

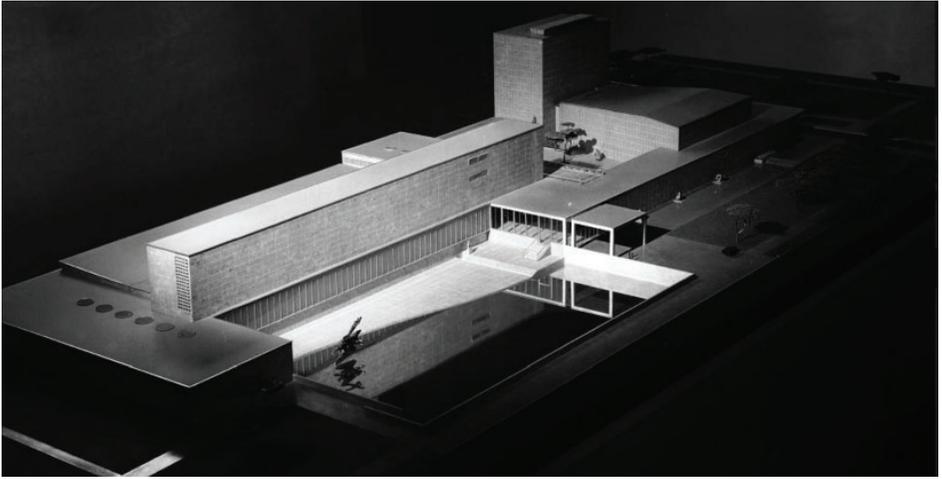
As to the beauty of architectural form, Saarinen identified the point of difference between the established contemporary American architects (he preferred the word "contemporary" to "modern") who were seeking each in his own way to express the spiritual aspirations of the time, and the European functionalists who were seeking to reduce architectural expression to a functionalist esthetic.

The question was: who was closer to the fundamental form of the 20th century? Who were the creative artists?

### ***Elie Saarinen and the Ideology of Modernism***

It was natural and timely for Saarinen to be appointed to be president of the Cranbrook Academy of Art in June 1932. He was already designing its built environment and he understood better than anyone else the art educational philosophy that needed to prevail there. Ironically, however, his appointment at Cranbrook occurred at just the same time as the "International Style" exhibition opened (February 9-March 23, 1932) at the new Museum of Modern Art in New York. Alfred H. Barr, Jr., the museum's first director, wrote the Foreword to this show's catalogue in which Elie Saarinen was disqualified from inclusion among the list of International Style architects. Saarinen was a Finn and there were already too many Europeans working within the International Style, whereas none of the Americans was producing anything of quality. Barr enlisted Raymond Hood and Frank Lloyd Wright as his primary American proponents of the International Style, although neither's buildings made a very good fit, and the claims he presented for their inclusion were vague at best. One could say almost anything about Frank Lloyd Wright and be plausible. Practically speaking, Barr's gesture rescued Frank Lloyd Wright at a time when his career had fallen into desuetude. Raymond Hood died of rheumatoid arthritis in 1934.

Barr distorted the facts to make his brief. He denied that Saarinen's *Tribune* Tower drawing had any beneficial influence on skyscraper design. Raymond Hood immediately changed his approach to skyscraper design after the 1922 *Tribune* competition, but Barr ignored this, saying instead that Saarinen's design had misled American architects by encouraging them to build exuberantly ornamented Art Deco skyscrapers. Barr's second thrust was to claim that Saarinen's ideas for



### MODEL OF THE SMITHSONIAN ART GALLERY, 1940

*Courtesy of Cranbrook Archives*

the Tribune Tower derived from Louis Sullivan, and that his ornament on the building was not only less inventive than Sullivan's but also not even equal to Frank Lloyd Wright's ornamentation from before 1910. Barr's claim that Saarinen had copied Louis Sullivan and did it badly, could not stand scrutiny. The issue of the comparative originality of ornamentation, drawn from a decade or more in the past, was, at best, indeterminate.<sup>11</sup>

### **Eero Saarinen's Rising Arc**

Eighteen years later, Eero Saarinen addressed these false claims in a lecture in Detroit, as will be shown. But for these events in 1932, there is no record of his reactions to this extraordinarily public attack on his father and his father's colleagues and friends. Still, he was twenty-two years old, in his first year at Yale, and as active and competitive as ever. He was glad to be away from home, but studying to be an architect among teachers vastly less experienced than his father.

Between 1936 and 1942, Eero worked with his father on a series of innovative buildings: the Cranbrook Institute of Science (1935-1937) the first flat-roofed building at Cranbrook; the Fenton, Michigan, Community Center (1937-1938) the first small town community center in the country; the Tanglewood Music Shed, the summer home of the Boston Symphony Orchestra in Lenox, Massachusetts (1936-1937); Kleinhans Music Hall (1938-1940) in Buffalo; the Crow Island School (1938-1940) in Winnetka, Illinois; and the Cranbrook Museum and Library Building (1937-1942). For these projects Eero performed varying roles: site architect in Fenton, designer of the two-level public area for the Kleinhans building, and furniture designer with Charles Eames for both the Kleinhans and Crow Island projects.

In addition, in the late 1930s he entered a series of competitions. In the Wheaton College Art Center competition, Eero Saarinen placed fifth behind Walter Gropius's and Marcel Breuer's second place entry. In the Goucher College campus development plan and library competition, Eiel and Eero took second place. In February 1939, Eero Saarinen, Ralph Rapson and Frederic James placed first in the William and Mary College

11. Alfred H. Barr, Jr., "Foreword," *Modern Architecture; International Exhibition, New York, Feb. 10 to March 23, 1932, Museum of Modern Art*. New York: Museum of Modern Art, 1932, pp. 12-17, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015006734241&view=1up&seq=5&skin=2021>



**ANN ARBOR CONFERENCE PARTICIPANTS VISIT CRANBROOK TO SEE THE SMITHSONIAN MODEL**  
*Courtesy of Cranbrook Archives*

Festival Theatre and Fine Arts Center competition, winning with a modern design. Had this design been built, in 1939-1941, "it would have won for the college the distinction of being the first to institute Modern design in this century."<sup>12</sup>

The Smithsonian Gallery of Art competition for the Mall in Washington, D. C., could not have been missed by any breathing architect in North America. This time, Walter Gropius was on the jury. Winners were announced on June 29, 1939: first place went to Eliel and Eero Saarinen and J. Robert F. Swanson. The winning proposal stirred up significant controversy, and had it been built the design would have brought the first modern building to the mall of the capital city. This recognition identified the Saarinen team as easily the foremost proponents of modern design in the country. One further anecdote illustrates the respect accorded to the Saarinens' design proposal: The Museum of Modern Art sponsored an exhibition in 1944 to

track architectural progress since 1932. Titled *Built in U.S.A. 1932-1944*, the editorial modus operandi allowed for the inclusion of *only* those buildings that had been built—but with one exception. According to the Foreword, "It was also decided that the Saarinens' winning project for the Smithsonian competition should be illustrated in the book even though it was not eligible for inclusion among the actual selections."<sup>13</sup>

13. *Built in U.S.A. 1932-1944*, edited by Elizabeth Mock, Foreword by Philip L. Goodwin, New York: The Museum of Modern Art, 1944. p. 7. The Smithsonian Art Gallery competition may well have occasioned the first Ann Arbor Conference in February 2-3, 1940. The key draw in the decision to invite the leading architectural educators in the country to Ann Arbor was Eliel and Eero Saarinen. The chief speakers at the conference were Walter Gropius, Eliel Saarinen, Joseph Hudnut and William Wurster. Alas, no records exist of these presentations. Joseph Hudnut, dean at the Harvard Graduate School of Design, became a fixture at subsequent conferences, and he wrote glowingly of Eliel Saarinen's Kleinhans Music Hall and Crow Island School projects. He kept the model of the Smithsonian Art Gallery competition in Robertson Hall at Harvard from 1941 to 1945. One assumes that the University of Michigan's Dean Wells I. Bennett, the host of the Ann Arbor Conferences, worked closely with Joseph Hudnut. One last anecdote: Robert Swanson has said that Joseph Hudnut visited Cranbrook both to see it and to ask Eliel Saarinen's advice regarding bringing Walter Gropius to Harvard. Saarinen told him Gropius was the right choice. On the subject of the Ann Arbor Conferences, see Deirdre L.C. Hennebury, "Unconventional Convention, The Ann Arbor Conferences, 1940-1954," *Awards 2022*, No. 05, fall 2022, Ann Arbor: Huron Valley Chapter American Institute of Architects, pp 26-35.

12. "College of William and Mary: Competition for a Festival Theatre and Fine Arts Center: November 1938-February 1939," by James D. Kornwolf, pp. 125-175. *Modernism in America 1937-1941: A Catalogue and Exhibition of Four Architectural Competitions*, edited by James D. Kornwolf, Williamsburg, VA: Joseph and Margaret Muscarelle Museum of Art, College of William and Mary, 1985. See p. 142.

Charles Eames arrived at Cranbrook in 1938, invited by Eliel and fitted with a scholarship to study with him. Eames joined the art academy faculty the next year, but by that time he had already befriended Eero, and the two of them worked together to design furniture for the Kleinhans Music Hall and the Crow Island School. This partnership, augmented by the arrival of Ray Kaiser, Eames' future spouse and design partner, in 1940, led to Eero and Eames winning the top two awards in the Organic Design in Home Furnishings competition in 1941. Eliot Noyes, director of the department of industrial design at the Museum of Modern Art and the organizer of the competition, wrote that their winning design was revolutionary: "In the case of chairs by Saarinen and Eames, a manufacturing method never previously applied to furniture was employed to make a light structural shell consisting of layers of plastic glue and wood veneer molded in three-dimensional forms."<sup>14</sup>

A second experience may have been significantly formative. Somehow, in the midst of architectural projects and competitions, Eero found time in the spring and summer of 1938 to work with Norman bel Geddes on the design of the General Motors Pavilion that housed the Futurama exhibit, for the 1939 New York World's Fair. This immersion in practical futurism and closeup exposure to concepts of streamlining in industrial production also put Eero in touch with the corporate views of the General Motors and Shell Oil corporations as regards the planning of cities, highway systems, and suburban areas in relation to automobile and air travel. In the Norman bel Geddes office, records indicate that Eero was a highly paid designer and draftsman. And, according to Oliver Lundquist, an industrial designer and architect, and Eero's colleague in the Office of Strategic Services, Eero Saarinen was practically



**EAMES AND SAARINEN TESTING THE STRENGTH OF LEG JOINTS, 1940**

*Courtesy of Cranbrook Archives*

responsible for the design of the General Motors Pavilion.<sup>15</sup>

During the war years, Eero worked in Washington, D. C., in the Office of Strategic Services, which later became the Central Intelligence Agency. Ostensibly, he was responsible for designing materials for display in the White House situation room. At the same time, he was working with Eliel and Robert Swanson, using his Georgetown house as the firm's Washington office. He was involved in designing wartime housing in Centerline, Michigan; at Willow Run in Ypsilanti, Michigan; and for Lincoln Heights in Washington, D. C. In 1943, he and Oliver Lundquist, placed first in the competition sponsored by the California Arts and Architecture magazine to design a portable modular house. Eero continued working with Charles Eames on the *California Arts*

14. "A Note on the Competition," by Eliot F. Noyes, *Organic Design*, New York: The Museum of Modern Art, 1941, p. 4.

15. "A Few Years Ahead: Defining Modernism with Popular Appeal," by Jeffrey L. Meikle, in *Norman Bel Geddes Designs America*, edited by Donald Albrecht, New York: Abrams, 2012, pp. 115-134. See p. 131.

*and Architecture* Case Study House Program, designing houses 8 and 9 in 1948 and 1949. In 1947 he developed the Womb Chair for the Knoll furniture company. Eero was uncannily adept at finding his way to the center of richly rewarding architectural and industrial design challenges, which often involved collaborating with brilliant partners.

The most opulent architectural project in American history up to that time, the General Motors Technical Center in Warren, Michigan, came to Eero through his father. GM executives wanted a campus-like arrangement for centralizing and relating all the groups—research, engineering, styling, manufacturing, and service—responsible for creating products for future consumers. Initially, the budget was pegged at \$30,000,000 but once underway the company dedicated \$125,000,000+ to this extraordinary investment in the future of automobile design and production in the United States and abroad.

After winning the initial contract on September 19, 1945, Eliel asked J. Robert F. Swanson to call Eero home. But post-war labor problems delayed the project, and when it finally came to Eero in 1948 (he was 38, his father was 75) to close the deal with the GM board, he explained to them that they did not want a Cranbrook-style campus plan. Instead, they should build a research complex that strengthened their corporate identity, principally by replicating in the buildings the industrial materials and precision processes used in the design, the engineering, the styling and the manufacture of automobiles. Once this idea took hold, he pursued it relentlessly, finding ways to integrate imagery and new materials in the service of strengthening GM's corporate identity. He used metal, glass, ceramic, thin curtain walls, synthetic seals for curtain wall windows, primary colors, precision sculpture (staircases inside, objects outside), large sculptural forms (stainless steel water tower, Alexander Calder fountain, metal dome for the circular showroom, and so on), all in keeping with GM's creative spirit and future-oriented

approach to engineering, styling, and sales. Soon after the dedication of the GM Tech Center in May 1956, Eero Saarinen was featured on the cover of *Time* magazine. This success brought him a flood of commissions and quadrupled the size of his firm.

### ***Eero Saarinen and Michigan Architects***

From 1945 to 1950, Eero Saarinen received little attention in the *Weekly Bulletin of the Michigan Society of Architects*. The GM Tech Center project was still below the radar. Very much in the news was his father's leadership in planning the Detroit Civic Center. While a brief item did take notice of the competition in St. Louis for the Jefferson National Expansion Memorial in 1948, the subsequent lack of action to build it rendered Eero's sensational design for the Gateway Arch a thing of passing interest. But Eliel's death on July 1, 1950, seemed to release him to circulate more freely among the Detroit, Ann Arbor, and University of Michigan architects. The Detroit Chapter of the AIA voted to make him Vice President of the chapter in September 1950 and he was appointed to serve on the committee on architectural competitions. At the invitation of the Metropolitan Art Association of Detroit, he delivered an address in the commodious Detroit Institute of Arts auditorium on November 29, 1950, to a full house.<sup>16</sup>

The best way to understand the present situation in architecture, he said, was to look at the creative leaders first, and then to the philosophical, social, and economic issues they were responding to and interpreting in their work. The creative leaders, including Le Corbusier, Walter Gropius, and Mies van der Rohe,

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16. Eero's very well-received presentation was printed as "Trends in Modern Architecture," in the *Monthly Bulletin of the Michigan Society of Architects* 25, 2 (May 1951), pp. 11-15. Joseph Hudnut's lectures at the University of Michigan in May 12-16, 1952 were published as *The Three Lamps of Modern Architecture*, Ann Arbor: University of Michigan Press, 1952, reiterated and affirmed Eero's thesis that the forms of modern architecture were still evolving.

all Europeans, were seeking "a common denominator" for an architecture meant to serve an industrial society. Their efforts had produced the concept of functionalism: "It was," according to Eero, "a doctrine that form in architecture can only be created by function. This portrayed architecture as a very humble servant of society—a follower, not a leader. It was a very negative approach, but it served a certain purpose in cleaning house." He noted that the work of their followers came to be labeled the "international style."

A second trend appeared in the United States. It began with the *Chicago Tribune* Building. The competition was held, "and my father's second prize design influenced the skyscraper design to a point where it permanently broke with eclecticism. Raymond Hood's Rockefeller Center was the result of that break. Soon to follow in 1925," Eero said, "the Art Deco show in Paris became the turning point for American interior design. Then, in rapid succession, several things happened—the establishment of [the design schools at] Cranbrook and Taliesin, the bringing of Gropius to Harvard, the beginning of the Museum of Modern Art in New York, the appearance of [Richard] Neutra, of [William] Lescaze, of [Antonin] Raymond, of [Marcel] Breuer. Gradually the arena moved over here."

A third approach noted by Eero was represented by William Wurster, the California architect whose modern designs incorporated the California tradition of craftsmanship in residential building. "It was not an architecture that heralded the coming age of the machine. It was an architecture that recognized the fact that the building industry is a handicraft industry." This movement posed a real challenge to the "powerful influence the Harvard School of Architecture, Gropius, and Breuer had had on the young architects of the East. This was good, because the followers of Gropius and Breuer had built up certain sets of rules and dogmas on design that endangered their growth."

In an interesting salute, Eero's fourth trend involved "Mies and Structure." The buildings for Mies' new campus for the Illinois Institute of Technology "were electric in their importance. Out of the simplest possible steel frame he constructed buildings. The walls were treated as panels within the frame. He achieved a spare, classical beauty by elimination of all superficial effects. It was the same *beauty and structural logic* that Sullivan had strived for in the same city fifty years earlier." Mies, he said, had inspired a renewed interest in the "structural clarity of a building."

Summing up, Saarinen assured his audience that a new architecture was coming into being. "I do not feel that we in any way are running into the danger of a style congealing on us too quickly." One reason was the variety of directions already being pursued, but the chief reason involved what the "architect calls *concept*." Eero pointed out that Frank Lloyd Wright thinks of his building's situation in the natural setting first; while Le Corbusier thinks, because his building is man-made, it is separate from nature and should sit on stilts. Additional concepts, like "structure," "plan," and "form," also influenced the architect's judgment as to what gives "the building a wholeness." Yet another reason for pluralism in modern architectural design involved less developed considerations, such as city planning, the design of outdoor spaces and the employment of the other arts. These "neglected" areas, he said, needed to be explored and strengthened.

As for what to expect in the future, he identified two basic approaches to architectural thinking: The Classical and the Romantic. In this duality, the Classical approach held that there are "certain universal laws of proportion, lines, and aesthetics that are larger than the individual;" while the Romantic approach held that "the solution of the problem must come out of the problem itself and the personality of the one who creates the solution. The lasting value lies in the enjoyment of the personality

of the artist." He placed Mies on the Classical side "with Corbu and Gropius more into this group than into the other." In the Romantic group he placed Frank Lloyd Wright, Alvar Aalto, Eliel Saarinen, William Wurster and Oscar Niemeyer. "Both poles are necessary for the progress of developing the form of one's time. The Classic alone has a tendency to congeal too quickly; the Romantic are the more experimental." Finally, he noted that in the present day the Classic approach had made "great progress in *larger* buildings" while "the Romantic approach had made great strides in the *smaller* buildings, residential work in particular, where perhaps we as a society are protesting against the industrialization of our culture."

### **Mid-century Modernism at the University of Michigan**

In the context of the times, these remarks offered a sane and enlightening gloss at just the time of transition from Beaux-Arts practices to modern ones. It was a temperate stance that looked far ahead in anticipation of future synthesis and reconciliation. At the University of Michigan, a number of young teachers were being brought onto the architecture school faculty, including Walter Sanders (a practicing architect from the East), Edward Olenki (a Miesian), Joseph Albano (also a Miesian), C. Theodore Larson (to head architectural research) and William Muschenheim from New York (one of the architects involved in the Museum of Modern Art activities from 1931 to 1932). Veteran faculty members were equally engaged with how to adjust to the new trends. Professor George Brigham, an eclecticist in California, came to the University in 1930, designed an outstanding Art Deco house in Ann Arbor for Walter Badger (former professor turned Vice President at Dow Chemical Co.) in 1936, and then invented the typology for the Ann Arbor mid-century modern house in 1953. Professor Ralph Hammett, originally an architect of large apartment houses and public buildings in Chicago, also came to the University

in 1930, lived for over 20 years in an early 19th century house that he lovingly restored, became the chief architectural historian in the department, and in 1954 moved across town to live in a delightful mid-century modern house he designed for himself. These details indicate the intense sensitivity to changing ideas endemic in the progressive educational setting at the University of Michigan, and they highlight the need among faculty to determine what to present to students who were themselves seeking to understand the direction of architecture.

The architecture students at mid-century were similarly caught up in the controversy. Robert Metcalf (the chief mid-century modern architect to practice in Ann Arbor) had worked with George Brigham as a research assistant on the study of a demountable small house (called the Youtz Unit House) and as the chief draftsman in Brigham's architectural practice for over four years. In 1952, Metcalf started his own office, served on the UM architecture faculty, and was appointed dean of the University of Michigan College of Architecture and Urban Planning in 1974. Another gifted student, David Osler, worked with Douglas Loree for eight years before starting up his own office in 1958. Charles Lane<sup>17</sup> also worked in George Brigham's office and laboratory, and then after the war began his own practice in Ann Arbor with a focus on schools. His firm, Lane, Riebe, Weiland, designed the Huron High School (1969). James Livingston won the Booth Traveling Fellowship in 1952 before setting up his office in Ann Arbor and contributing many attractive mid-century modern residences and apartment houses in the fast-growing city. Charles W. Moore, who graduated from the architecture school in 1947, made note of the fact that, at that time, there was very little of the "Krautish persuasion" evident in the architecture program at

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17. Charles "Wes" Lane was proud of having won a fellowship to study with Eliel Saarinen. The coming of war prevented it. Biographical essays on George Brigham, Ralph Hammett, Robert Metcalf, David Osler, Charles Lane, James Livingston and other Ann Arbor architects can be found at <https://a2modern.org>.

UM and that some of his professors were "woody Finns."<sup>18</sup> Moore's comment drew attention to the indigenous landscape, to Frank Lloyd Wright's respect for nature, and to Eliel Saarinen's love of brick and color, and suggests why white boxes on stilts were thought to be less suited for building in Ann Arbor's wooded, riverine, and seasonal Michigan setting. Eero Saarinen's view of the architectural trends strengthened these romantics, who wished to keep hold of color and indigenous materials, even if in doing so they went against the prescriptions imposed by the adherents of the "international style" of modern architecture.

In May 1950, Eero became president of the Detroit Chapter of the AIA when the acting president died unexpectedly. He was not the right person for this master-of-ceremonies role, being busy with his own practice and an inveterate traveler. The Detroit Chapter understood this and soon released him to freedom. But through his stint in local leadership, he became an identifiable, approachable, and romantic figure, and his comings and goings and achievements were tracked and reported, as were the activities of his office and of the men and women employed by him. In addition, the association with Cranbrook and Cranbrook artists, like Harry Bertoia, Marshall Fredericks, Marianne Strengell, and Maija Grotell, and the doings of the Swanson family, including his industrial designer sister, Pipsan, altogether created an extended aura of creative interaction, productivity, and reach of influence. The Saarinen-Cranbrook-Swanson triumvirate provided an ongoing spectacle of achievement and leadership.

### ***Eero Saarinen and the Practice of Modern Architecture***

Selected from a list of six contenders, Eero Saarinen and Associates (ES&A) won the contract to plan the new University of

Michigan North Campus in June 1951. The struggle with North Campus planning lasted long after the firm withdrew from active involvement in 1958, but Eero's participation brought prompt and comprehensive results. By 1953, the basic elements of the North Campus plan were largely determined. Fred Mayer, the long-time campus planner for the University, described how subsequent building was guided by Saarinen's decisive layout of North Campus:

The School of Music, the School of Art and Design, and the Taubman College of Architecture and Urban Planning are shown on their present sites. The Engineering College is shown in the northeast sector of the academic core. Buildings are shown on the sites now occupied by Pierpont Commons, the Chrysler Center, and the Duderstadt Center; housing is shown in the Bursley/Baits area and family housing in the Northwood area. In addition, the basic road system is shown in the core area, and the intent to preserve existing stands of mature trees is clearly evident.<sup>19</sup>

Saarinen's plan was a sound one, certainly, and it stayed operative even with dramatic surprises. For example, after 1953, the state moved Highway 23 several miles to the east from its original route along what is now Huron Parkway. Second, Bonisteel Boulevard was to continue east to (then close-by) Highway 23 after a local cemetery was removed, but University efforts to acquire the cemetery land were stymied by families who refused to cooperate and then sued. An additional problem was lack of consistent funding to build. These kinds of snags would always be part of the job, but it was another matter that encouraged Saarinen to withdraw. In the years between 1948 and 1959, Eero underwent a refinement in his thinking about the essential elements in any planning effort.

18. *More Than a Handsome Box*, by Nancy Bartlett, Ann Arbor: The College of Architecture and Urban Planning, 1995, p. 2.

19. Frederick W. Mayer, *A Setting for Excellence: The Story of the Planning and Development of the Ann Arbor Campus of the University of Michigan*, Forward by James J. Duderstadt, Ann Arbor: University of Michigan Press, Volume I, 2015; Volume II, 2017. See Volume II, p. 49.

He got a taste for this while collaborating with Harley Earl at General Motors, but it was his work for Eliot Noyes and IBM, starting in 1956, that greatly advanced his understanding of the need for the total integration of corporate mission with the corporate look.

In his mandate to rebrand IBM, Noyes had changed the IBM logo, redesigned the look of printed materials (catalogues, public relations materials), and changed the look of the computing machines. He wanted to help the public feel better about these mysterious boxes that nobody understood. Noyes created new public showcases for exhibiting and selling the IBM computers, and he initiated a worldwide architectural look for IBM offices, research facilities, and factories. When Eero Saarinen was brought in to design a factory in Rochester, Minnesota (and later a research building in Yorktown, New York), he was not designing standalone buildings but rather buildings that were to be a highly conscious part of a global network. His factory building in Minnesota, in fact, was "the company's first important work of architecture,"<sup>20</sup> because it established the look of all the buildings to follow. Noyes brought in Saarinen, he said, because he knew he could trust the integrity and the modern look of the building. Of course, these IBM buildings had to be good neighbors, and they were in their local settings, but they also had to interface with other IBM buildings regarding look and color. A curtain wall for IBM had to correlate with the thin metal walls of IBM computers as well as with curtain wall designs and color of other IBM buildings to come. Even the GM Tech Center work did not demand this consciousness of an international network of buildings. Eero's work for IBM, in other words, brought him into the center of a planning idea whose logic and scope could only cast a dim light on the developmental impediments at the University of Michigan. These were troubles he identified in his presentation to the

Regents in 1958, and they were difficulties no one could remedy. As he pointed out, many obstacles militated against an effective and comprehensive master plan for North Campus: the shifting politics of administrations, opportunistic donors, strong and weak departments, conflicts between architectural firms invited to build, the problem of finding an objective consultant, and the contest between traditional and modern looks for the college campus. Overall, however, the chief issue involved asserting a strong, long-term control over the look of the brand as conveyed through architectural design. Eero told the Regents that his ideal would be for "one architect to make the working drawings not only for the present or for the next decade but for years and years ahead."<sup>21</sup>

In the midst of North Campus planning, the University contracted with Eero Saarinen and Associates to design a building for the music school. An original estimate of \$8,000,000 in 1955 was pared down to \$4,500,000 and the contract let in late September 1956. At just this time (July 2), *Time* magazine featured Saarinen's portrait on its cover. Inside, an eight-page article cited the "Twentieth Century Form-Givers:" Frank Lloyd Wright, Le Corbusier, Mies van der Rohe, Marcel Breuer, Richard Neutra, Wallace K. Harrison, Gordon Bunshaft, Philip Johnson, Minoru Yamasaki, I. M. Pei, Paul Rudolph, Buckminster Fuller, and Eduardo Catalano. "Sure sign of the healthy state of U.S. architecture is the large number of promising younger talents. And of the whole U.S. cast of modern architects, none has a better proportioned combination of imagination, versatility and good sense than Eero Saarinen, 45, son of late great Finnish-born Architect Eliel Saarinen." Happily, the university obtained a major building from a celebrated architect that was fully supported by the legislature. In its original conception, the music school had been fitted with a large, domed, circular building set close to the curving

20. *Eero Saarinen: Shaping the Future*, edited by Eeva-Liisa Pelkonen and Donald Albrecht, New Haven and London: Yale University Press, 2006, p. 281.

21. See Frederick W. Mayer, *A Setting for Excellence*, Volume II, pp. 51-53.

entrance road, to act as a landmark, a sculptural presence and a welcome. The revised design took advantage of the rising ground. Perched on a ridge overlooking a pond, the central block (administration, classrooms, and library) joined spreading wings to the north (practice rooms) and to the south (recital halls) along the ridge, making future expansion in either direction a simple matter.

*The Michigan Society of Architects Monthly Bulletin*<sup>22</sup> provided a range of articles and updates to architects across the state. Each month, as a major feature that brought forward doings in regional areas, it published a portfolio of work by a firm or an office (for example, the North Campus project was featured in the September 1954 issue). The articles dealing with accounts of meetings, new methods of construction, new materials, obituaries, bowling scores, and so on, created collegial solidarity. Accounts of conventions and meetings included numerous photographs of the participants to highlight the social vitality of the profession and make familiar the faces of the leadership and the active society members.

Taking 1956 as typical, almost every issue included a reference or references to Eero Saarinen or his firm or the Saarinen-Cranbrook-Swanson doings, and listing some of these notices here will indicate the sense of what the *Bulletin* felt architects might like to know. In January, Eero was named consultant to the City Planning Commission. An article about thin-shelled structures in the U.S. featured ES&A's MIT auditorium building; a notice that *Progressive Architecture* had given a "top design award for higher education" to ES&A's proposed Concordia College project; and a note that Eero was one of four jurors



**EERO SAARINEN RECEIVING THE M.S.A. GOLD MEDAL, 1959**

*Courtesy of Michigan Society of Architects*

for the Sydney Opera House competition appeared in the February issue. In March, ES&A won an award for a girls' dormitory at Drake University and learned that its plan for the \$3,000,000 embassy building in London had been chosen by the State Department. In April, Aline Saarinen was appointed to a committee to plan a meeting between the Society of Architectural Historians and the College Art Association in Detroit. Oddly, the only official mention of the GM Tech Center the entire year was in this April issue, as GM president, Harlow H. Curtice, announced the opening ceremony coming up in May. The September cover sported a drawing of the TWA Terminal, and this issue also featured a fifteen-page portfolio of work by the firm Smith, Hinchman and Grylls (consulting engineers to the GM Tech Center). October brought readers a look at artwork employed by architects in schools, shopping malls and civic spaces over seventeen pages: artists included Cranbrook's Harry Bertoia, Lilian Swann Saarinen, Marshall Fredericks, Marianne Strengell, Zoltan Sepeshy, and Eva Lisa "Pipsan" Saarinen Swanson. Also, in this issue, the Civic Design Committee of the MSA endorsed ES&A's proposal for the development of the Detroit Civic Center

22. There was an active collegiality among the practitioners, educators and the material suppliers across the state due to the enlightened editorial policy at the *Monthly Bulletin of the Michigan Society of Architects*. This publication was easily the best of state architectural journals in this era. The *Bulletin* changed from weekly to monthly publication in September 1950.

Plaza. And, in December, mall developer Victor Gruen and Eero Saarinen spoke before the Detroit Economic Club. This low-key drumbeat of reporting continued steadily through the following years up to 1961.

In March 1959, the Michigan Society of Architects awarded Eero Saarinen its Gold Medal. The citation, redolent with the understandable pride of the local architects, pointed to something many architects were feeling at the time: Eero Saarinen was bringing into being a new and farsighted style of architecture.

Distinguished son of distinguished parents, Eero Saarinen, a leading architect of his time, a perfect spokesman for a generation that has consolidated the gains of great revolutionaries who have made our country the birthplace of modern architecture. His work will take its place with the Greek, the Gothic and the Renaissance. He has reflected great credit on the Michigan Society of Architects. As a symbol of the preeminent place our nation holds in modern design, his creative architectural talent has played so important a part that no other has gained more worldwide distinction. For these and other valuable contributions, the Society is proud to award its 1959 Gold Medal.<sup>23</sup>

As pointed out by Ralph Hammett in a lecture to the Society of Architectural Historians in 1957,<sup>24</sup> Eero Saarinen had become the central architectural figure in the American modern movement. Hammett's premise held that modern architecture in America began with Albert Kahn of Detroit and continued into the present time through Eero. Hammett began by tracing the generally accepted history of architecture up to 1800, but then made an unorthodox turn in his view of what followed next. He divided the fifth age of architectural history, "The Age of Machine Craft," into three phases:

1. the phase of cast iron, 2. the phase of steam, 3. the phase of automation. In the "phase of automation," he included the advent of women's liberation, the creation of Albert Kahn's assembly line factories, and the development of relative parity between labor and management. In his reckoning, 20th century innovations had brought about an aura of real democracy in America. Hammett saw in Eero Saarinen's then-recent work at the GM Tech Center the legacy established by Albert Kahn's factory buildings. He asserted that real modernism in architecture had originated in Detroit with Kahn's designs for open space with curtain wall sash, which had been resolved without any influence from the "International Style" architects. For his part, Eero had always maintained that the inspiration for the buildings at the GM Tech Center came from Albert Kahn's factories in Detroit and not from Mies.<sup>25</sup>

In 1959, Eero Saarinen prepared to move his practice to New Haven, to be closer to his commissions and closer to the center of architectural innovation. The Dulles International Airport (Chantilly, Virginia, 1963) was evidence of his professional maturity and the quality of his work sufficed to answer his critics. His Irwin Union Bank in Columbus, Indiana, (1954), for example, might be seen as a response to Philip Johnson's glass house; vertical granite shafts rose out of bedrock beneath the CBS Building (New York, 1965), so that they carried the weight of the building and opened up unobstructed interior space; it answered the largely horizontal, floating feeling of Lever House (Skidmore, Owings & Merrill, New York, 1952) and the later Seagram Building (Mies van der Rohe with Philip Johnson, New York, 1958); Eero's TWA Flight Center (John F. Kennedy International Airport in New York, 1962), with its great concrete shells resting on four points, had dared more than any architectural project in America. The Gateway Arch (St. Louis, designed in 1948 and completed 1965), the first architectural form to acknowledge

23. *Monthly Bulletin of the Michigan Society of Architects*, 33, 4 (April 1959), p. 33.

24. Ralph Hammett, "Detroit's Machine-Age Architecture," *Monthly Bulletin of the Michigan Society of Architects* 31, 3 (March 1957), pp. 49, 51, 53.

25. "Eero Saarinen's Proudest Achievement," by Joy Hakason, *Detroit News*, June 26, 1966, pp. 12-19. See p. 19.



### 1966, CONSTRUCTION COMPLETE, CRANES COMING DOWN OFF THE ARCH

*Jefferson National Expansion NPS, used under CC BY 2.0 , Cropped from original*

the coming Space Age, was in the process of being engineered for building now that federal money had been appropriated and the structural mathematics was catching up with the design. The Arch asserted that Eero Saarinen was more closely in touch with the fundamental form of his time than any other American architect then or since. That his design was preferred over his father's design meant,<sup>26</sup> not a vanquishing of the father, but rather just the opposite, proof that he was his father's

best student. Now moving east with 40 of his associates, he was entering a new relationship with the most powerful architects in the world and the new horizon was waiting for his leadership.<sup>27</sup> ■

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26. The gist of this story: Both Saarinens entered the Jefferson National Expansion Memorial competition. At the end of the first round, the Saarinens received a telegram saying that E. Saarinen had made the cut. Everyone celebrated Eliel's preferred design. When news arrived saying that Eero not Eliel had made the cut, everyone celebrated Eero's preferred design. *The Gateway Arch: A Biography*, by Tracy Campbell, New Haven and London: Yale University Press, 2013. See pp. 71-72.

27. In March 1961, Eero began experiencing symptoms of what became an inoperable brain tumor. He died on September 1. His doctor, Edgar Kahn, son of Albert Kahn, was considered one of the best neurosurgeons in the United States. In a letter to Loja Saarinen (September 5, 1961) he wrote: "I do want you to know how badly I felt about Eero. From the onset of the first symptom nothing could have been done with our present knowledge to stop the growth of this type of tumor. On the one chance that we might have been wrong in our diagnosis, we operated only to find that we had not been in error as to the location and type of the tumor."



#### **SOUTH POND AND ARCH, 2018**

*Jefferson National Expansion NPS, used under CC BY 2.0 , Cropped from original*



*Image Credit: Kevin Adkisson*

## **About the Author**

Recently retired to Ann Arbor, Jeffrey Welch was a teacher at Cranbrook Kingswood School in Bloomfield Hills, MI, for almost forty years. The incomparable architectural atmosphere at Cranbrook and living in and working in buildings designed by Eliel Saarinen have led to a book on the founding and history of Cranbrook. A graduate of Harvard College in 1971, he received a Ph. D. in English from the University of Michigan in 1978. His ongoing research now includes the career of Emil Lorch, the first head of the University of Michigan school of architecture, and topics related to Midcentury Modern architects and architecture in Michigan.