

Beautiful Dreams, Breathtaking Visions:

Drawings from the 1947-1948
Jefferson National Expansion Memorial Architectural Competition

BY JENNIFER CLARK



The seven-person jury seated around a table in the Old Courthouse with competition advisor George Howe in 1947. The jury met twice to assess designs and decide what the Jefferson National Expansion Memorial would look like. The designs included far more than a memorial structure. A landscaped 90-acre park, various structures, water features, a campfire theater, museum buildings, and restaurants were also part of the designs.
(Image: National Park Service, Gateway Arch National Park)

Today it is hard to conceive of any monument that could represent so perfectly St. Louis' role in westward expansion as the Gateway Arch. The city's skyline is so defined by the Arch that it seems impossible that any other monument could stand there. However, when the Jefferson National Expansion Memorial (JNEM) was created by executive order in 1935, no one knew what form the memorial would take. In 1947, an architectural competition was held, financed by the Jefferson National Expansion Memorial Association, a nonprofit agency responsible for the early development of the memorial idea.

The competition took the world of architecture by storm due to the freedom it granted designers to create a landscape punctuated with museums, restaurants, galleries, historical recreations, and a monumental structure of some kind. The memorial's prominence alongside the Mississippi River and on the St. Louis skyline, coupled with the generous prize money to be awarded, generated great excitement in the architectural community. The competition was restricted to American citizens and attracted interest from throughout the country: current and soon-to-be-famous architects, partners, friends, and even in one case, father and son, competed against each other to create a lasting memorial. It was the first large competition to arise after World War II.

Perhaps the most exciting collection in the archives of JNEM consists of 193 of the original competition entries detailing alternative dreams for the memorial, created by such luminaries as Louis Kahn, Walter Gropius, Charles and Ray Eames, Minoru Yamasaki, Edward D. Stone, and of course, Eliel and Eero Saarinen.

The idea of holding an architectural competition for the memorial was announced in 1945, and the following year Luther Ely Smith, the man who originally proposed the riverfront memorial, asked George Howe to be the advisor. Howe was a well-known Philadelphia architect who was later the Chair of the Yale School of Architecture. He was a modernist with strong ideas about how to create a living memorial that would best serve the public interest.

Howe went to work, recruiting the members of the jury, which consisted of seven men: S. Herbert Hare, the only landscape architect on the jury, who had studied with Frederick Law Olmstead, Jr.; Fiske Kimball, director of the Philadelphia Museum of Art; Louis LaBeaume, a St. Louis architect who had long been interested in the project and helped to develop the program; Charles Nagel, Jr., director of the Brooklyn Museum, who was later director of the

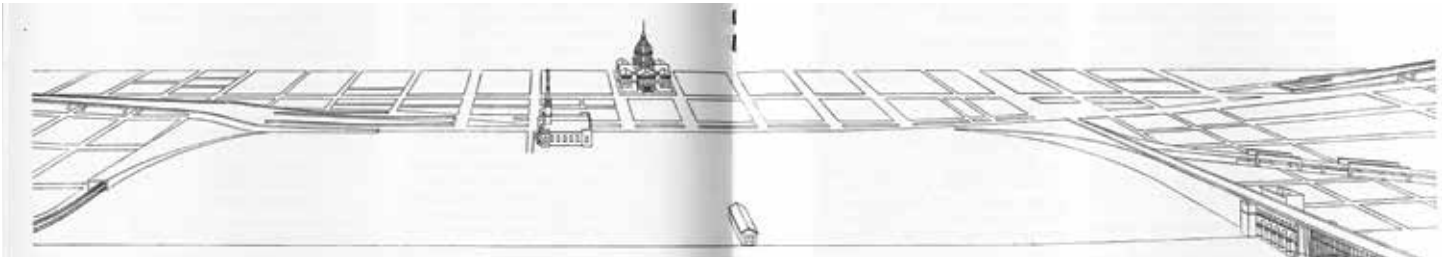
Saint Louis Art Museum; Roland A. Wank, the chief architect of the Tennessee Valley Authority; William W. Wurster, dean of architecture at MIT; and Richard J. Neutra, a well-known modernist architect. George Howe was present for the jury's deliberations and made comments, but he had no vote.

LaBeaume created a detailed booklet for the competition to illustrate the many driving forces behind the memorial and the different needs it was intended to fulfill. Concerns included adequate parking, the ability of the National Park Service to preserve the area as a historic site, and the unusual provision that the architects create a "living memorial" to Thomas Jefferson's vision. The ultimate goal, in the words of the program booklet, was to "develop an historic metropolitan area to the greatest advantage of the citizenry of the world at large," and any perceived conflicts inherent in the various and disparate competition criteria were a "conflict only in the best democratic sense. It is a conflict over means, not over ends."¹

The booklet provided a general overview of the memorial, specifics about the competition and the jury, and the rules and schedule for the competition. It included a line art image in the centerfold with a very basic view of the 90-acre memorial site, identifying the three historic structures that were to remain in situ and be included in the design—the Old Courthouse, the Old Cathedral, and the Old Rock House. The booklet also included a great deal of information, both written and visual, about the history and uses of the site that, it was hoped, would be integrated into the final designs. Yale University Archives has preserved Eero Saarinen's copy of this booklet, including his early sketches of arches in the margins of the text—a fascinating artifact showing that he decided upon an Arch as his central feature very early in the process. The competition was conducted anonymously in two stages to ensure that the strength of the individual designs was weighed without the influences of name recognition.

The first of the required elements was a monument or monuments that would serve as a central feature of the design. The monument could assume any shape, but originally it had to have sculptural elements illustrating or symbolizing some of the following themes:

- The Signing of the Louisiana Purchase Treaty
- The Transfer of Upper Louisiana Territory to the United States at New Orleans
- The Transfer of Upper Louisiana Territory to the United States in front of the Spanish Government House in Old St. Louis



Centerfold, Competition Booklet, Jefferson National Expansion Memorial. This view of the 90-acre park showed the buildings that were to remain—the Old Courthouse, the Old Rock House, and the Old Cathedral, with the rest of the area left blank to fire the imaginations of entrants. (Image: National Park Service, Gateway Arch National Park Archives)

- The Outfitting of the Lewis and Clark Expedition in Old St. Louis
- Trapping and Fur Trading
- The Pioneer Movement
- Life and Traffic on the Mississippi

The Old Cathedral (which is an active Roman Catholic parish belonging to the Archdiocese of St. Louis) was not to be touched. Inclusion of the Old Courthouse without changes was mandatory. Inclusion of the Old Rock House (as it stood, renovated by the National Park Service, which had removed elements extraneous to the 1818 fur trade warehouse) was desirable, but not mandatory.

Other than a general warning about St. Louis' climate and the problems of maintenance, landscaping was at the discretion of the architect. The inclusion of a campfire theater, a popular feature of many parks in the West where rangers presented programs, was encouraged. The design needed to include a large museum, but the nature of the space for educational purposes was left to the creativity of the architect.

One of the most intriguing aspects of the program was the call for the park to include a living memorial to Thomas Jefferson's vision. The exact nature of this living memorial was only vaguely defined as something instructional, educational, and cultural, contrasted with "activities as carried on in stadia, baseball parks, sports palaces, auditoria, concert halls, and other such facilities."²²

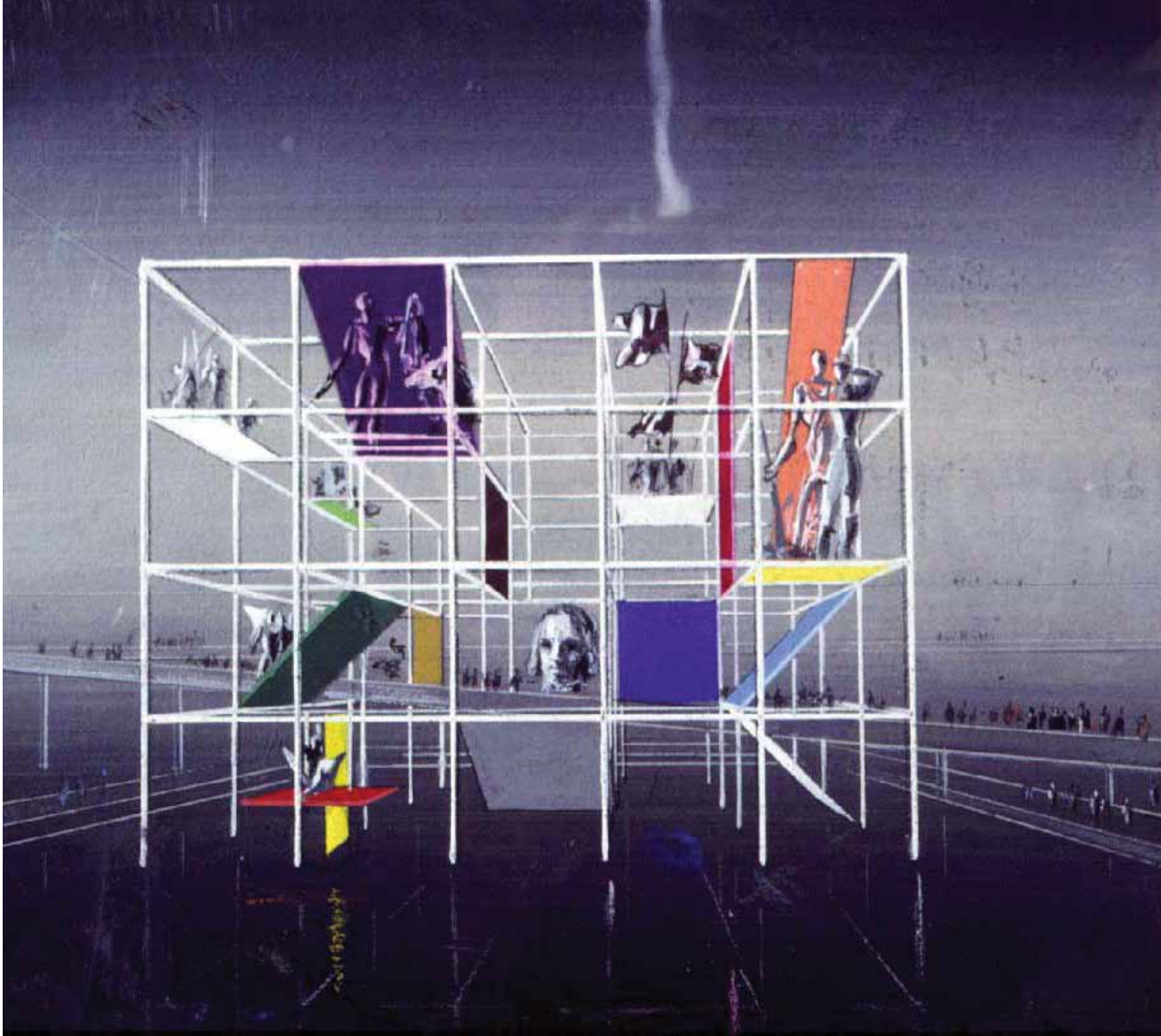
Entries were to be submitted in the form of two drawings measuring approximately 36" x 48". The first drawing was to be a plan showing all the elements of the design, an elevation as would be seen from a vantage point across the Mississippi looking back at the park, and a cross section. The second sheet could be more informal and "the Competitor is to think of himself as talking to the Jury over the drawing board, pencil, pen or brush in hand, making freehand sketches to explain and amplify any ideas, features, compositions, or details he may think especially worthy of their consideration or necessary to clarify his thought."²³

The booklet described in detail the process by which the jury would select five finalists who would proceed to a second round, submitting a set of amended designs. The sealed envelopes revealing the names of the architects that accompanied each entry were opened only after the selection of the second stage finalists. The identity of the second stage competitors remained a secret known only to advisor George Howe and the president, the treasurer, and the chairman of the Competition Committee of the Jefferson National Expansion Memorial Association.

The records of the jury, also preserved in the JNEM Archives, indicate that the idea of second-round anonymity was hotly debated. George Howe felt that perhaps the rules had been too strict to mandate complete anonymity in the second round. He proposed the possibility of releasing the names of

Detail of Frederick Dunn's entry showing a giant waterfall feature along the riverfront, pouring over a high masonry wall. Dunn was a St. Louis architect known for several beautiful Art Deco-style homes and later in time the Lewis and Clark Branch of the St. Louis Public Library. Charles Nagel, who was a juror, had been in an architectural partnership with Dunn prior to World War II. (Image: National Park Service, Gateway Arch National Park Archives)

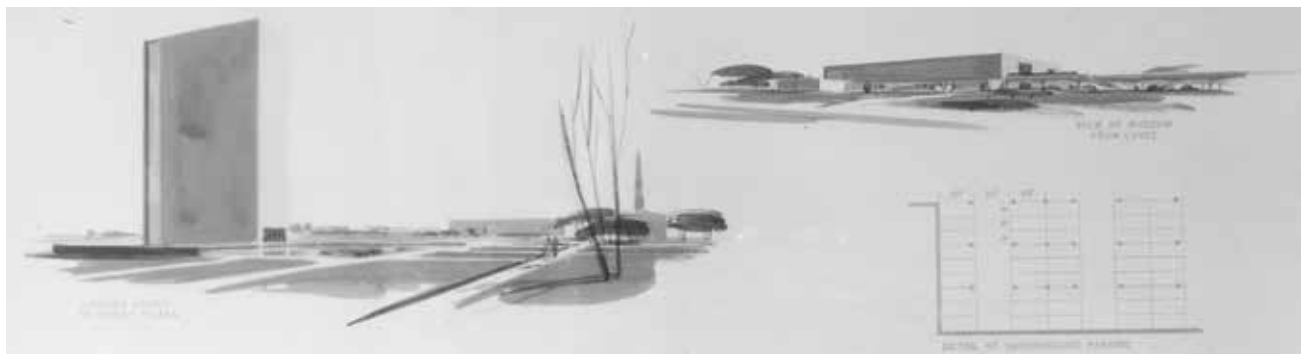
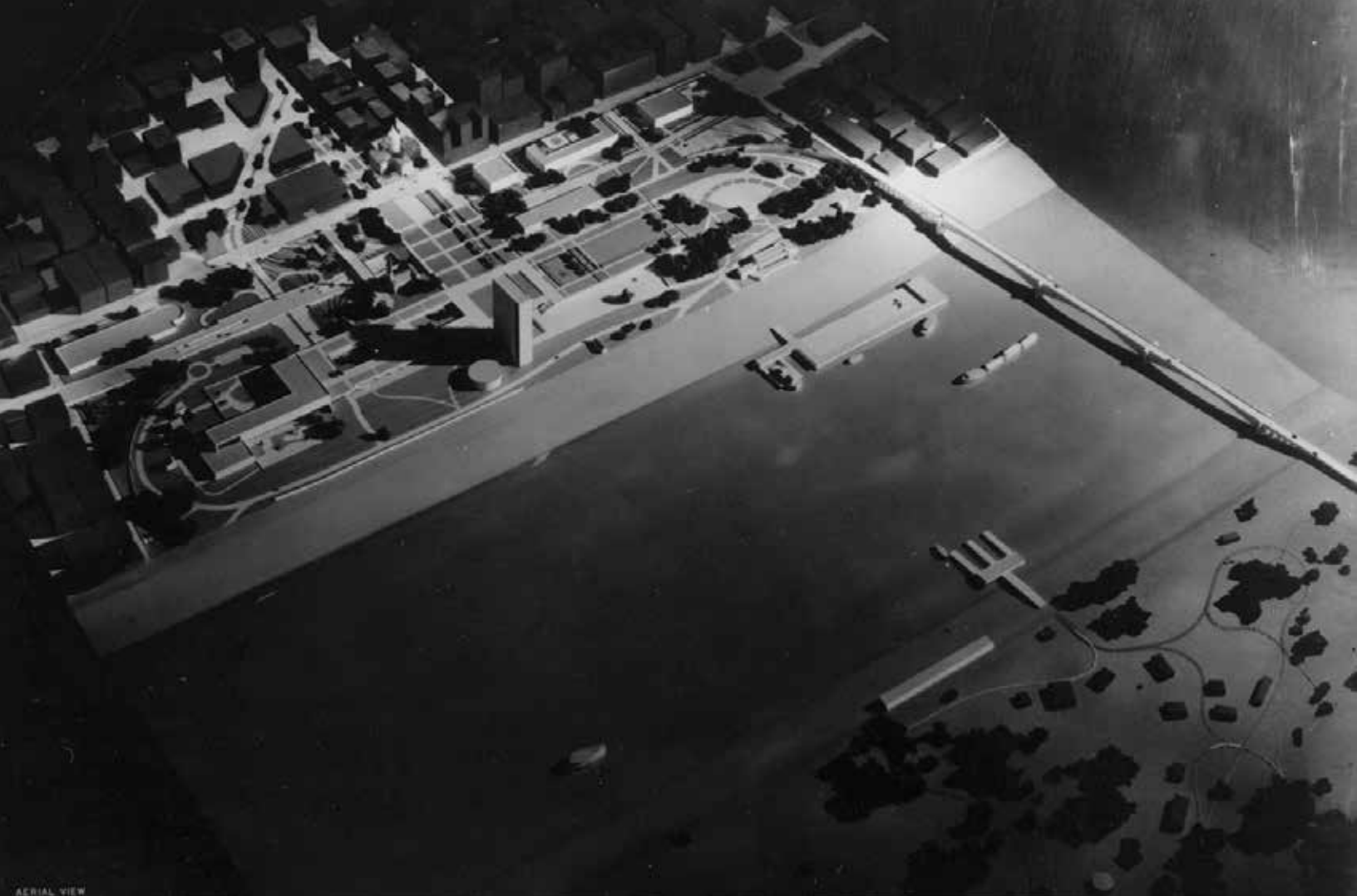




A detail of Walter Gropius and the Architect's Collaborative plan showing an abstract design feature of their memorial concept. As one of the originators of the modern movement and the founder of the Bauhaus in Germany, Gropius was one of the most famous entrants in the 1947 competition. He entered as an unnamed member of the Architects Collaborative firm because he was not an American citizen (the competition was open only to U.S. citizens). (Image: National Park Service, Gateway Arch National Park Archives)

the five semifinalists and their designs for publication as soon as possible after the judging, provided all the competitors agreed to this departure from the competition rules. Louis La Beume felt strongly that the competition booklet had laid out clear rules and the jury was beholden to follow them, even if they personally felt that they were not the best choice. The jury decided to consult with a lawyer, who advised that the terms could not be modified without the unanimous consent of all parties concerned. La Beume “still considered any attempt to modify the conditions of the program at this late hour unwise, and apt to result in unpleasant repercussions.”⁴ La Beume stated that he would resign as a jury member if the terms of the question were modified to any degree. La Beume won his point, and the rest of the competition was conducted as indicated in the competition booklet.

After the announcement of the competition, 235 teams of architects, artists, and designers stated their intention to compete, but only 172 actually sent in submissions. As each entry arrived in St. Louis, it was assigned a chronological number. Harry Richman, an architectural student at Washington University at the time, was hired as an intern to unpack the drawings and arrange them on easels on the second floor of the Old Courthouse for the jury to view. In an oral history interview with historian Bob Moore, he described the sensation of pulling out Eero Saarinen’s drawing of the Gateway Arch: “It wasn’t until I had the luck of opening up Eero Saarinen’s entry that I realized that this was different, an entirely different departure, a major breakaway from the type of entries that I had been looking at. And I called Bob [Israel, the other student helping to unpack drawings] over and told Bob I thought this would certainly be,



Details from the Smith, Hinchman, Grylls and Yamasaki competition entry. Minoru Yamasaki left the Smith, Hinchman and Grylls firm in 1949, and went on to design many well-known structures, including the original twin towers of the World Trade Center. In St. Louis Yamasaki designed the main terminal at Lambert-St. Louis International Airport, the original Military Personnel Records Center on Page Avenue, and the Pruitt-Igoe housing project. (Images: National Park Service, Gateway Arch National Park Archives)

I would think up to this point, a winning entry, and Bob agreed with me.”⁵

When the jury met to judge the first-round entries, they inspected them on their easels. Their focus was to find the right architect or team to take on this project—the vision of the entry was more important than the particulars of the design. After the initial assessment, they set aside 62 submissions

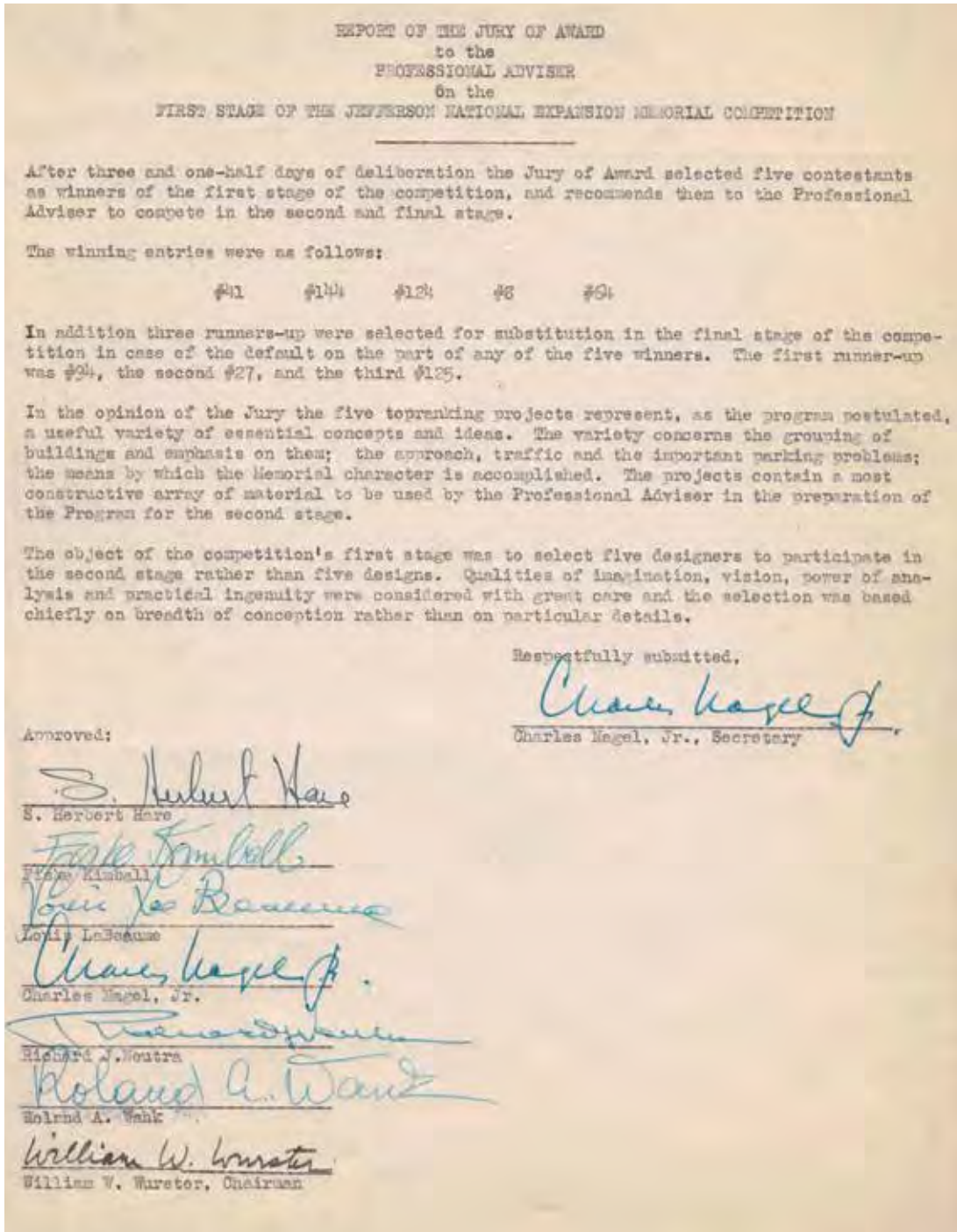
as “ineligible for prizes” for various reasons.

They proceeded to call out the numbers that were assigned to the drawings and vote for those they wanted to retain. Submissions having a no vote were removed—shockingly, including entries by George Matsumoto, Gyo Obata, Harrison and Abramovitz, Harry Weese, Mackey and Murphy, and Skidmore, Owings and Merrill.⁶

The remaining entries were shuffled according to the number of votes received, resulting in 41 contenders. Submissions with one vote included those by Louis Kahn and Charles and Ray Eames. Submissions with two votes included those by Walter Gropius, Aduchi Kazumi, Frederick Dunn, Raymond

Maritz, Eliel Saarinen, and Robert Elkington. Hugh Stubbins and Roger Bailey got three votes. At four votes, some of the finalists began to appear: T. Marshall Rainey, Wishmeyer and Lorenz, Percival Goodman, and Phillips and Eng. Harris Armstrong and Pilafan & Montana received five votes. Only

Jury Statement, Record Unit 104, Box 29, Folder 16, Jefferson National Expansion Memorial Archives. (Image: National Park Service, Gateway Arch National Park Archives)





T. Marshall Rainey (#8) was one of the few architects that had actually studied the early U.S. expansion period, making sketches of historical scenes centered on his home town of Cincinnati. His design had no real "central feature" or monument. It included a large museum complex fronted by an elaborate series of ponds and fountains, a major transportation center involving busses and helicopters, and also a Jefferson Institute complex where issues of world peace would be discussed. *(Image: National Park Service, Gateway Arch National Park Archives)*



Honorable Mention: Harris Armstrong (#41). A judge commented, "[I] approve of the breadth and simplicity of the terrace along the levee . . ." Roland Wank commented, "the concept is as clear and simple as any of the entries, and the use of the plow and furrow as a monument seems highly poetic. On the other hand it gives the juror the impression that the competitor is a talented but high-handed artist." Armstrong was one of the most respected practitioners of the mid-century modern style in the St. Louis area. His best-known buildings are the Ethical Society (1962) and the Magic Chef Building (1946). He designed many residences as well as commercial buildings. *(Image: National Park Service, Gateway Arch National Park Archives)*



Second Prize: Gordon A. Phillips, William Eng and Associates. One of the judges commented, “[I] approve the simplicity, even the leanness, of the main idea.” Roland Wank stated, “the concept is the simplest of all, and in some respects the most brilliant.” Despite the order of the names on the design, the principal architect of this entry was William Eng. Born in China in 1919, Eng emigrated to the United States and served during World War II in the U.S. Army. He was a student in the School of Architecture at the University of Illinois Urbana-Champaign when he entered the competition. He later worked in the office of Eero Saarinen and became a professor of architecture at his alma mater. Eng’s design featured a large amphitheater on the south, a museum-restaurant complex on the north, and a series of seven identical pylons set in a reflecting pond as its central monumental feature. *(Image: National Park Service, Gateway Arch National Park Archives)*



Third Prize: William N. Breger, Caleb Hornbostel, George S. Lewis and Associates. Juror Roland Wank’s comment on this entry was that “the concept is broad and simple.” The central design feature was one of the few that rivaled the Arch in its scale and audacity. The twin sculptural towers would have been about 475 feet tall. The three architects on this team had widely varied backgrounds and were never in partnership with one another. Breger had been an assistant to Walter Gropius, Hornbostel had attended the École des Beaux-Arts in Paris, Lewis had worked for Marcel Breuer and contributed to the design of the United Nations Secretariat Building. It is not known how the three men met or decided to collaborate on this design. *(Image: National Park Service, Gateway Arch National Park Archives)*

Eero Saarinen and the Smith, Hinchman, Grylls and Yamasaki team got six votes.⁷

The jury proceeded to cast ballots to narrow the field to five finalists. Somewhere in that process Smith, Hinchman, Grylls and Yamasaki dropped out of consideration and did not make it to the final round. The finalists were: #41 (Harris Armstrong), #144 (Eero Saarinen), #124 (Gordon Phillips and William Eng), #8 (T. Marshall Rainey), and #64 (William Breger, Caleb Hornbostel and George S. Lewis). The competition awarded significant prize money, \$10,000, to each of the five finalists, which could help cover expenses to compete in the second round.

George Howe created the second-stage addenda to the program of the competition, and in doing so he changed much of the focus. In this stage, the competition became more realistic, and it included the demands and restrictions imposed by the Department of the Interior. No helicopter or railroad terminals were allowed, and all designs had to be restricted to be within the federal borders of



Boyd's Department Store windows downtown featured a theme honoring the memorial competition in 1948. The latest men's shoes and suits of the day were displayed with the winning Saarinen design in the background, including a picture of the dapper Saarinen himself in his natty suit and bow tie. (Image: National Park Service, Gateway Arch National Park Archives)



First Prize: Eero Saarinen and Associates. Herbert Hare's notes on Saarinen's entry state that "there is considerable question in my mind whether the arch suggested is practical." Another judge commented "easily one of the most facile, and most imaginative offerings submitted. The author shows skill and sureness of touch...The great parabolic arch is impressive in conception and scale, but doubt its ultimate realization." Charles Nagel commented, "imaginative and exciting monumental arch – an abstract form peculiarly happy in its symbolism." Roland Wank stated, "the monument seems to be beautiful and relevant; perhaps inspired would be the right word. I think it would remain so, even though budget limitations would require a reduction in size." Actually, the size of the Arch was increased before it was built, from 590 feet to 630 feet. (Image: National Park Service, Gateway Arch National Park Archives)

the memorial site. The levee could not be altered—this had the most impact on Harris Armstrong’s design, which dramatically altered the shape of the levee in the first-round version. Perhaps most significantly, the plans for a Living Memorial to Thomas Jefferson’s vision—the aspect of the design that was to be instructional, educational, and cultural—was dropped. Instead, the focus was on “The Architectural Memorial . . . [which was] to be conceived as a striking element, not only to be seen from a distance in the landscape but also as a notable structure to be remembered and commented on as one of the conspicuous monuments of the country. Its purpose should be to attract the interest of the multitude as well as that of the connoisseur of art. The development of a suitable symbolic form is left to the Competitor. It is to be essentially non-functional, though its interior, if any, may of course be accessible.”⁸

In historian Sharon A. Brown’s *Administrative History of Jefferson National Expansion Memorial*, she noted that “there apparently existed a breakdown of anonymity and rumored identification of some or all of the first stage winners. Other complaints centered around ‘unexplained knowledge of certain solutions.’ None of the rumors could be traced to authoritative sources, and the National Park Service tried not to fuel them.” Howe’s second-stage addenda certainly read as a very apt description of the Gateway Arch.⁹

The five semifinalist teams returned to their drawing boards and produced revised versions of their first-round entries. Some of the changes were significant, and others barely altered their concepts. Harris Armstrong had to change one of the most dynamic features of his first-round design, the reimaged levee, and as a result basically started from scratch to create a completely different plan. Saarinen changed the cross-section of the Arch from a rectangle to a triangle at the suggestion of sculptor Carl Milles, and in conjunction with landscape architect Dan Kiley he opened up the forested area between the Old Courthouse, the Arch, and the river as the judges had suggested.

The procedure for the jury in reviewing these revised designs was significantly less complicated than in the first round. First, William Wurster read part of the program to point out important elements to consider, including a tree-shaded park, the central monumental feature, the buildings both modern and reproduction, and the possible future development of the site. Howe recommended the jury keep in mind the importance of a memorial “of striking design and monumental character.”¹⁰

After the members had an opportunity to view all the second-stage entries and make comments, a trial vote was taken by secret ballot to see how opinion was running. In the very first vote the jury unanimously selected Eero Saarinen’s design as the winner, making further balloting unnecessary. Saarinen’s vision of the Gateway Arch easily won the day, though in their comments some of the judges expressed reservations that such a monument could be built as shown. They proceeded to discuss and award the rest of the prize winners. The two runners up received an additional \$2,500; third prize, \$10,000; second prize, \$20,000; and first prize, \$40,000.¹¹

After the competition ended, the original plan was to select a group of the entries for an exhibition, while the remainder would be returned to the creators. Howe selected 64 drawings to retain and planned to return 103. However, after 51 were returned, one of the architects complained that after spending the time and effort to create the entry for the competition, they were entitled to a share of the publicity and attention that would come from any exhibition of the entries. Howe agreed, offering to pay for the return of the drawings that had been sent back. However, only ten of those that had been returned were shipped back for display, so the park’s collection does not include the majority of those returned to the competitors, including Charles and Ray Eames’s entry and that of Eliel Saarinen.

After the competition was over, public interest in the results was extremely keen. The May 1948 issue of *Progressive Architecture* was largely devoted to the competition results and showcased all the finalists’ entries. In St. Louis, Boyd’s Department Store displayed copies of the drawings alongside fashionable men’s clothing. (See p. 16)

The drawings were displayed in the Old Courthouse from February through March 1948, with finalists on the first floor in the Rotunda and other entries on the second floor in the north wing. Most of the drawings still in the possession of the park were shipped to New York for a show at the Architectural League from May 20 to June 12. (J.W. Burt’s entry was deemed too delicate to travel, and another entry was slightly too large for the crate). Then, the drawings were sent to the American Institute of Architects’ Annual Convention in Salt Lake City from June 22 to 25. Fifty drawings were sent on a tour across the country by the American Federation of Arts and were shown in San Francisco; Los Angeles; the University of Illinois in Urbana; the Cranbrook Museum in Bloomfield Hills, Michigan; Howard University in Washington, D.C.; Syracuse

University; and then Harvard University. A planned book of images of the designs never materialized. The design submission boards were returned to the Jefferson National Expansion Memorial, where they were stored in the Old Courthouse and have been viewed only selectively on rare occasions since.¹²

This collection of drawings from some of the greatest architectural minds of the midcentury modern period of architecture has been a challenge to preserve and maintain. They were created solely for the purpose of winning the competition, and after seventy years many have not aged well. They were created with glues destined to fail and stain, stored in ways detrimental to the paper, and at every stop on their tour across the country “touched up” with rubber cement and other un-archival materials.

A memo to the park superintendent in 1963 stated that the museum curator had inspected the collection, which had been stored in the third-floor attic under poor conditions, and found damage from dirt, dust, moisture, and insects. The collection was moved into secure storage as a result. Later, the drawings were encapsulated in Mylar envelopes to try to stop more damage from occurring and to contain all the pieces and images that were flaking off the boards as glue lost its adhesion.¹³

For the last 21 years, drawings in the collection have been undergoing extensive conservation. Nancy Heugh of Heugh Edmondson Conservation in Kansas City has conserved 63 of the drawings and completed a survey of the collection to determine priorities for future conservation. The report notes the difficulties which will be part of the conservation effort. Competitors used whatever materials they desired to create their entries: backings of Masonite, plywood, Upson board, and corrugated cardboard. The range of techniques is very broad, from the delicate colored pencil of Saarinen’s final board by J. Barr to the photo manipulation techniques of T. Marshall Rainey. Many included elements of collage, painting, and stenciling. Some had significant amounts of text, while others relied mostly on the visuals to showcase their plans.

Heugh has spent years delicately cleaning the soot off the surface of each board, reattaching pieces that came unglued, eliminating stains and adhesives, removing insects and other surface adhesions from the materials, and even floating the drawings off the substrate and reattaching them to safer archival alternatives. After the initial conservation work was done, she created a polyester overlay to protect each item and a custom archival enclosure. The collection is stored safely in appropriate museum-quality units in a climate-controlled area, but the work to conserve

the drawings will undoubtedly continue for many years.

The chance to share some of these amazing works of art and imagination with the public for the first time in many years is extremely exciting and will undoubtedly spark new interest in this collection. A rotating exhibit of the original competition boards will be part of the new museum beneath the Gateway Arch. Each board is expected to be on view for a few months before it is switched out for another, thus saving the boards from excessive light exposure but also giving the regional public a chance to see a number of these designs in succession. Reproduction photos of the drawings are available to view in the park library, and the park archivist can be contacted for an appointment for those who wish to view specific originals.



The Gordon W.G. Chesser entry as photographed before restoration. Chesser was an architect from Philadelphia whose entry was not one of the top selections of the competition. As with all of the entries in the collections of the memorial, it is being conserved as an exemplar of an era of architecture and as part of an inventory of the various solutions architects created to the design challenges of the memorial. (Image: National Park Service, Gateway Arch National Park Archives)

Gordon W.G. Chesser entry after restoration by Nancy Heugh. Repairs have been made to ripping and fraying paper, and applied elements have been re-adhered to the surface. (Image: National Park Service, Gateway Arch National Park Archives)



E N D N O T E S

- ¹ Jefferson National Expansion Memorial competition booklet, 1947, p. 4, JNEM Archives.
- ² *Ibid.*, 23.
- ³ *Ibid.*, 25.
- ⁴ Proceedings of the Jury of Award for the Architectural Competition, JNEM Competition, Record Unit 104, Box 29, Folder 17, JNEM Archives.
- ⁵ Oral history interview with architect Harry Richman conducted by historian Bob Moore on Dec. 10, 2001, JNEM Archives.
- ⁶ Proceedings, Box 29, Folder 17.
- ⁷ *Ibid.*
- ⁸ Judgement, Second Stage, Record Unit 104, Box 29, Folder 20, JNEM Archives.
- ⁹ Sharon A. Brown, *Administrative History Jefferson National Expansion Memorial*, June 1984, 84–85.
- ¹⁰ Judgement, Second Stage, Record Unit 104, Box 29, Folder 20, JNEM Archives.
- ¹¹ Summary of Comments of the Jury of Award of Winning Designs, Record Unit 104, Box 29, Folder 20, JNEM Archives.
- ¹² Plan and Scope Committee, Architectural Competition, June–December 1948, Record Unit 104, Box 30, Folder 7, JNEM Archives.
- ¹³ Memo from Frank B. Sarles, Jr., Chief Park Historian to Superintendent H. Raymond Gregg, Oct. 31, 1963, Record Unit 104, Box 30, Folder 8, JNEM Archives.