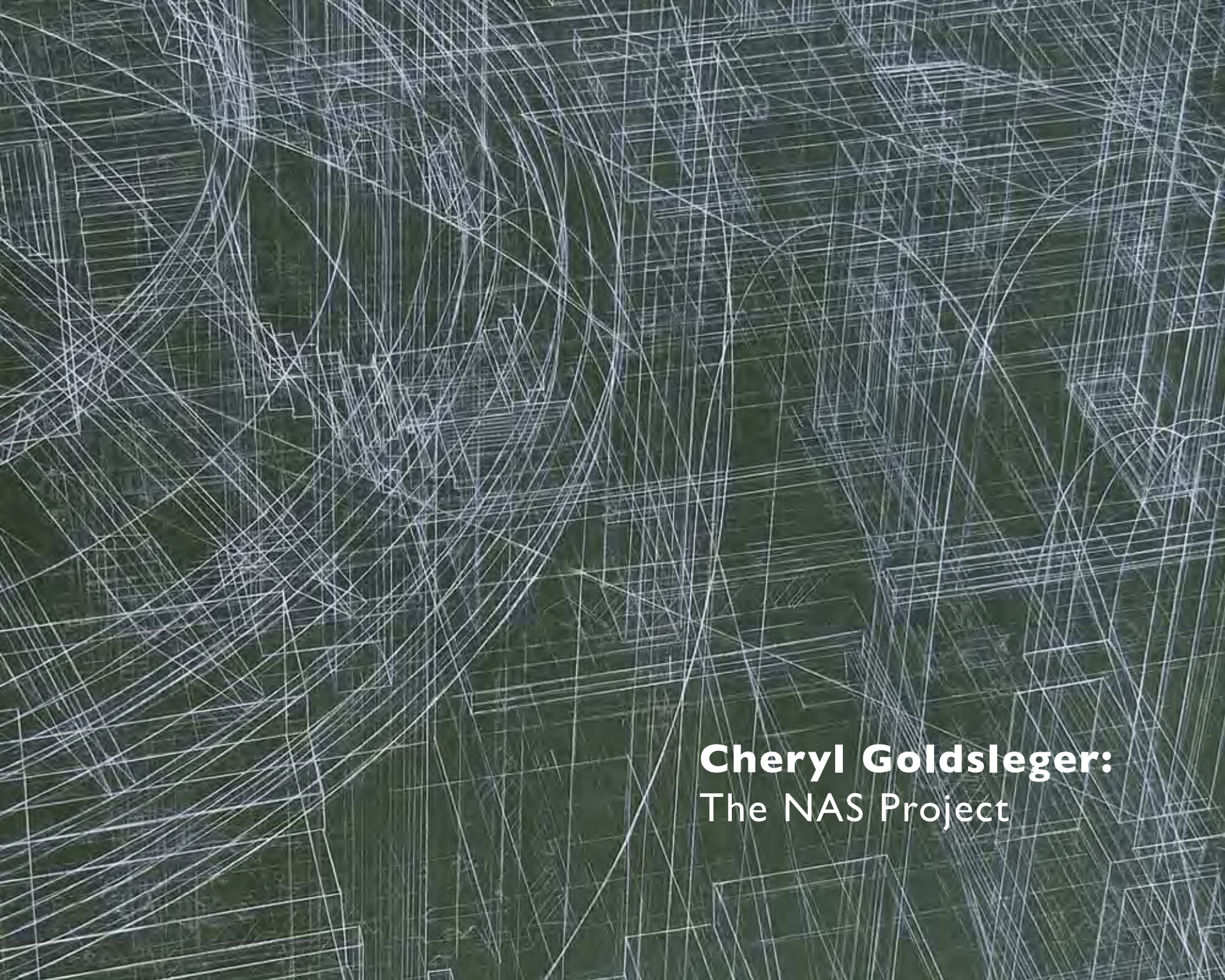


Cheryl Goldsleger:
The NAS Project

Cheryl Goldsleger: The NAS Project

February 4 – July 26, 2013

National Academy of Sciences, West Gallery, 2101 Constitution Avenue, NW, Washington, D.C.

The architecture of the National Academy of Sciences (NAS) Building inspired Cheryl Goldsleger to create this exhibition. Working with architectural imagery throughout her career, Goldsleger is fascinated with the way that structures are built and the diverse needs they satisfy. This building sparked her interest as a symbol of the history and significance of science and scientific discoveries.

Designed by Bertram Grosvenor Goodhue, with sculptural details by Lee Lawrie, the NAS Building represents both a specific point in time, 1924 (the year it opened), and the timeless quest for scientific knowledge. Goldsleger's exhibition celebrates the work of generations of scientists who build upon each other's knowledge and reach previously unimagined heights of discovery and depths of understanding.

Goldsleger referenced information from the NAS Archives and studied Goodhue's original building plans, along with numerous other sources, to create this body of work. She invites you to see the structure anew and explore the intricate network of ideas that are embodied in it.

This exhibition is organized by Cultural Programs of the National Academy of Sciences (www.cpnas.org).

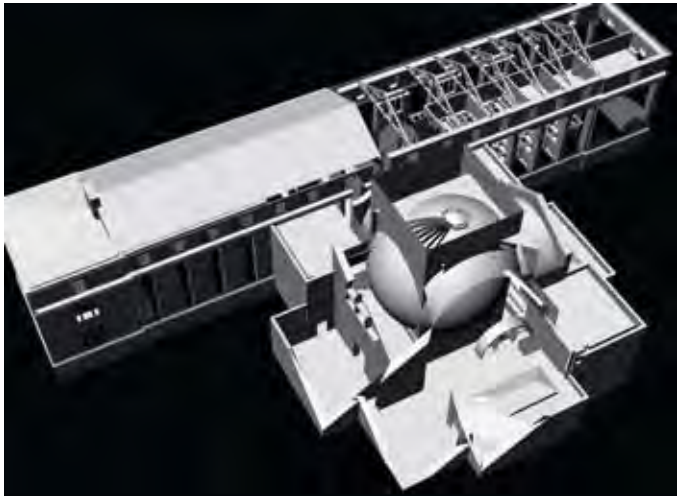


Fig 1: Goldsleger used the three-dimensional modeling program Rhinoceros to create her sculpture entitled ***The NAS Project.*** This screen capture depicts a preliminary sketch of the sculpture and reflects the role of 3D imaging in the artist's process.

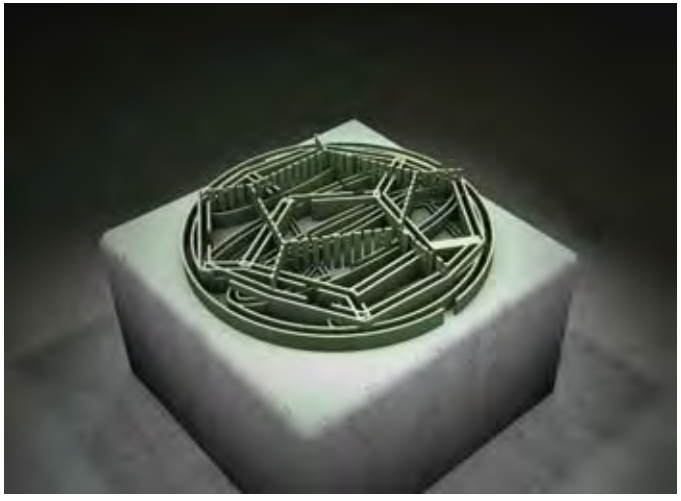


Fig 2: A still from an online video component created by Goldsleger to accompany the exhibit.

Introduction: The Structure of Knowledge

What is the structure of knowledge? How has it been built over time? Does it evolve with new discoveries replacing old ones or are new ideas stacked atop others like building blocks? How is knowledge integrated into our lives and what is its impact?

The art and architecture of the National Academy of Sciences Building which opened in 1924 was designed to house the U.S. Academy but also to remind visitors of the history of science and its impact on society. The central feature of the building is a domed room known as the Great Hall, the ceiling of which is adorned with iconography designed by artist Hildreth Meière representing the history of science. Both the architect and the Academy's building committee recognized the power of visual art and commissioned artists to preserve and communicate the impact of science on society.

Visitors to the Great Hall will notice four arches along the perimeter of the dome. The iconography in these arches alludes to four institutions of learning that predated the U.S. Academy of Sciences: the Royal Society of London, the French Academy of Sciences in Paris, the Lincean Academy in Rome and the Museum of Alexandria in Egypt. Other parts of the building contain bronze reliefs of great thinkers such as Galileo, Newton, Aristotle, and Darwin, to name only a few. These representations remind us of the history of knowledge. The knowledge that mankind has achieved has been constructed over time, sometimes building on previous knowledge, sometimes replacing older ideas with better ones.

This trajectory of the history of knowledge and the role of the National Academy of Sciences is reflected in the original ornamentation of the building and the office of Cultural Programs of the National Academy of Sciences (CPNAS) continues this tradition today. In celebration of the Academy's 150th anniversary in service to the nation and the public, CPNAS is pleased to present an exhibition by artist Cheryl Goldsleger. Goldsleger's work reflects her interest in the way structures are built and the diverse needs that architecture must satisfy. Idealistic and functional, architecture both houses us and preserves our culture. Goldsleger turned her attention to the NAS Building, conducting extensive research in the NAS archives and studying original building plans along with numerous other sources. She has created paintings and a sculpture in which the original building design serves as a visual metaphor for the history of knowledge, the history of the NAS and its context in American history. In Goldsleger's work, viewers see a complex system of lines based upon the original 1924 architectural drawings. She allows us to see through the walls and reminds us of the complexity and interconnectivity of the building's structure that, like the structure of knowledge itself, is often hidden from sight [Fig. 1]. This idea is further solidified by accompanying interactive videos presented online as a virtual extension of the exhibit. The visuals of the video contain imagined mazes within the NAS Building that represent the paths of discovery–some paths lead to dead ends while others lead to successes indicated in the interactive by noted scientific discoveries or ideas [Fig. 2].

After a major restoration of the NAS Building which was completed in 2012, we are able to exhibit Goldsleger's work in a gallery space that was part of architect Bertram Grosvenor Goodhue's original design but had been lost in earlier renovations. The exhibition of art within the context of a space dedicated to science offers a platform for reflection on the impact of science on our lives and culture. For the Academy, the restoration of the building represents a renewal of the Academy's commitment to serve the nation. It seems appropriate, as we reflect on the past 150 years of the Academy's history and its contributions, to celebrate the building which has become a home for science through Cheryl Goldsleger's art. We are grateful to her for her vision, talent, and enthusiasm for the NAS building and for this body of work that commemorates its history.

JD Talasek
Director
Cultural Programs of the National Academy of Sciences (CPNAS)

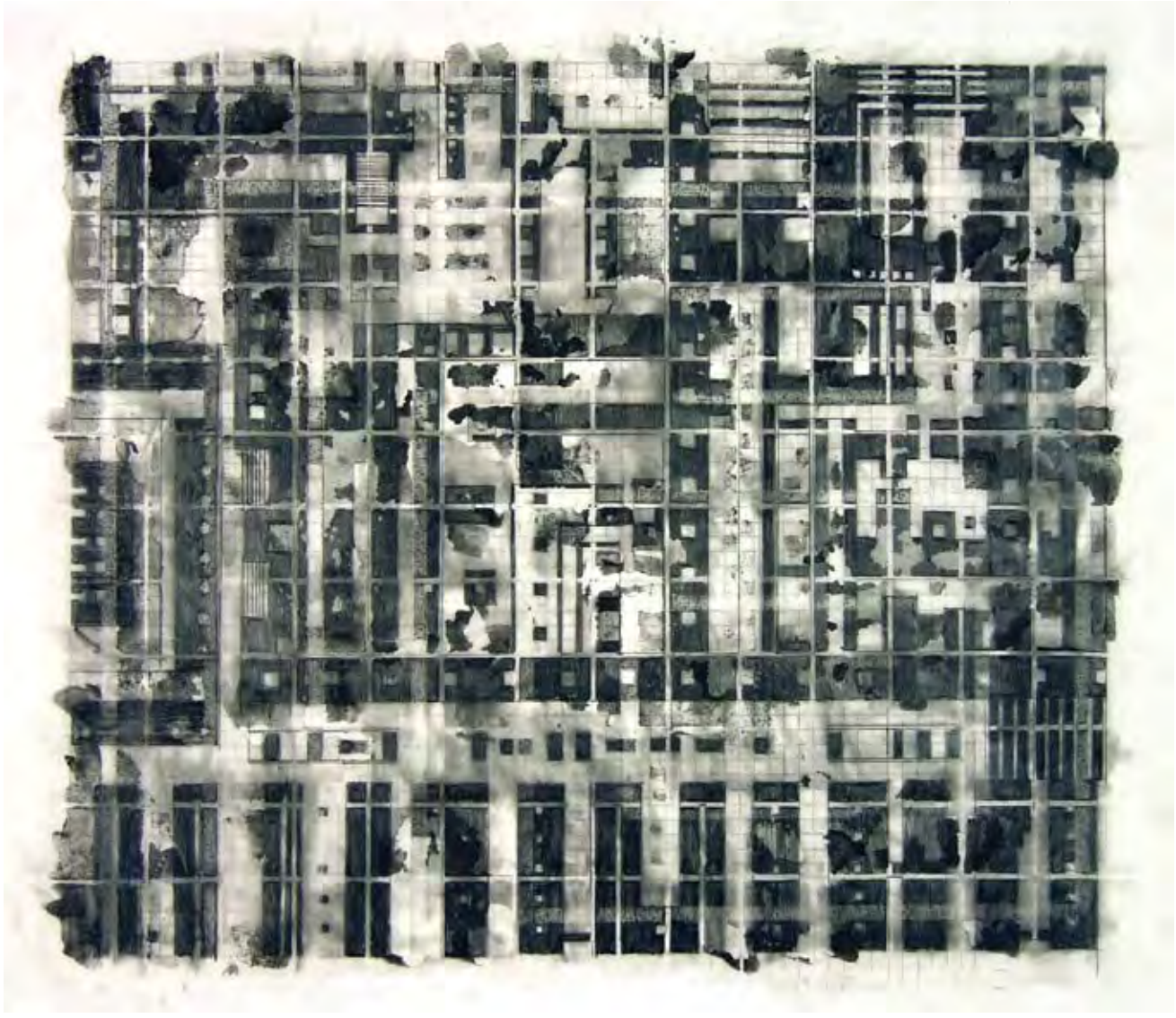


Fig 3: *Rise*, 2005
Graphite on mylar
Sheet: 457 x 520 mm. (18 x 20 1/2 in.)
The Baltimore Museum of Art:
Print, Drawing & Photograph Society Fund, with proceeds derived from the 2008 Contemporary Print Fair, BMA 2008.43

Cheryl Goldsleger has made architecure the subject of her work for more than three decades. She is fascinated by how architecture, spanning the practical and the visionary, holds a unique position among the arts: a building's design must be subordinated to the constraints of engineering and intended use, and yet nearly all built structures have the capacity to speak to the human imagination. In subtle and not always tangible ways, the most pragmatic of the arts exerts a continual influence on our perceptions, behavior, and sense of possibility. Drawing on influences that range from the dramatic architectural fantasies of Giovanni Battista Piranesi to the subtle grids of Agnes Martin, Goldsleger has thoughtfully explored the nature of architecture primarily through compositions that often blur the boundary between the real and the imaginary.

Her graphite drawing *Rise* [Fig. 3], for example, is loosely inspired by a 1926 design for the Honolulu YWCA Recreation Center by the American architect Julia Morgan (1872–1957); it belongs to a series of works in which Goldsleger pays homage to underappreciated women architects. Out of Goldsleger's encounter with Morgan's original plan emerged the underlying structure for the drawing. Goldsleger conceived her composition as a system of walls and floors, rooms and halls, masses and voids—a sort of heuristic blueprint that she first articulated in pencil, but then obscured through smudged and flaking pools of powdered graphite. The resulting image, evoking physical decay and the traces of fading memory, makes palpable the passage of time and the inevitable breakdown of all structures.

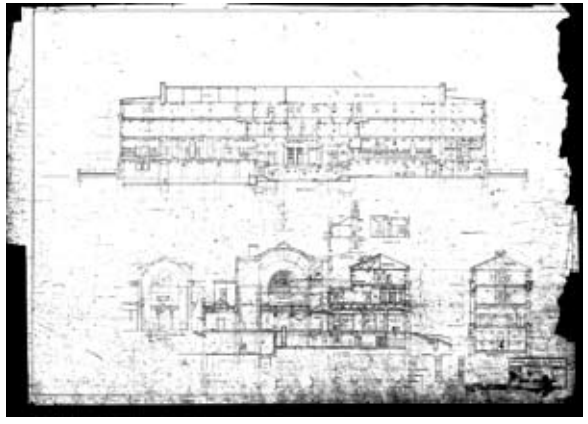


Fig 4: Bertram Grosvenor Goodhue
Architectural plan for the National Academy of Sciences
National Academy of Sciences

When Goldsleger began work on the NAS Project in 2009, she was inspired by the institution's present building, completed in 1924 and designed by American architect Bertram Grosvenor Goodhue (1869–1924). The artist first conducted research in the NAS Archives, reading about the institution's history and examining materials pertaining to the building's design and construction, including Goodhue's architectural plans [Fig. 4]. What most intrigued Goldsleger were the documentary photographs taken while the building was under construction, especially those of the magnificent dome that vaults the Great Hall, the centerpiece that for Goldsleger is the most seductive part of Goodhue's design. Her first works for the project were based on collages she made using several of these photographs. *Cupola* [Fig. 5] offers an expansive view of the entire dome that wasn't—and probably couldn't have been—captured in photographs in 1923, its round form and ribs juxtaposed with the roofs and chimneys of neighboring buildings. The construction workers in the photographs have been removed, but their presence is suggested through work materials visible at the dome's base.

After making two such drawings, however, Goldsleger found herself wanting to move in a different direction. She continued drawing—the practice that informs all of her work—but now opted to do so with a computer rather than a pencil. Working in the three-dimensional modeling program Rhinoceros allowed Goldsleger to interpret Goodhue's structure as a prototype, which was then fabricated in translucent photopolymer resin by a Tennessee-based subsidiary of the company 3D Systems. The resulting freestanding sculpture, Goldsleger's first, is composed of eleven pieces that fit together seamlessly. By altering and stripping away parts of Goodhue's design, Goldsleger literally opened it up to the light, allowing her to better grasp its governing structure and to come to fresh insights into its conception. Indeed one might say that the creation of this sculpture was a revitalization—a bringing back to life—of Goodhue's architectural process, which would seem to have had its terminus in the finished building, completed the year Goodhue died.

Fig 5: *Cupola,* 2009
Graphite on paper
23.75 × 33.5 inches
National Academy of Sciences

Goldsleger thus reinterpreted the NAS building by drawing it anew, using white and/or black Faber Castell pastel pencils on six large-scale linen canvases painstakingly prepared with several layers of sanded acrylic paint. The colors (blue, green, and gray) and identical large dimensions of these supports evoke the appearance of architectural plans and blueprints. In each canvas Goldsleger considered Goodhue's building from a different vantage point, her compositions filling—and seeming to extend beyond—the confines of the canvases. The building's solid forms are in the process of dematerializing, their skeletal structures laid bare. Goldsleger worked from a variety of sources, but never copied them directly. A ruler and compass guided her complex system of intersecting and layered lines of varying thicknesses. As with her earlier work, she carefully considered which architectural elements to include or exclude, and succeeded in striking a balance between the overall view and individual details.

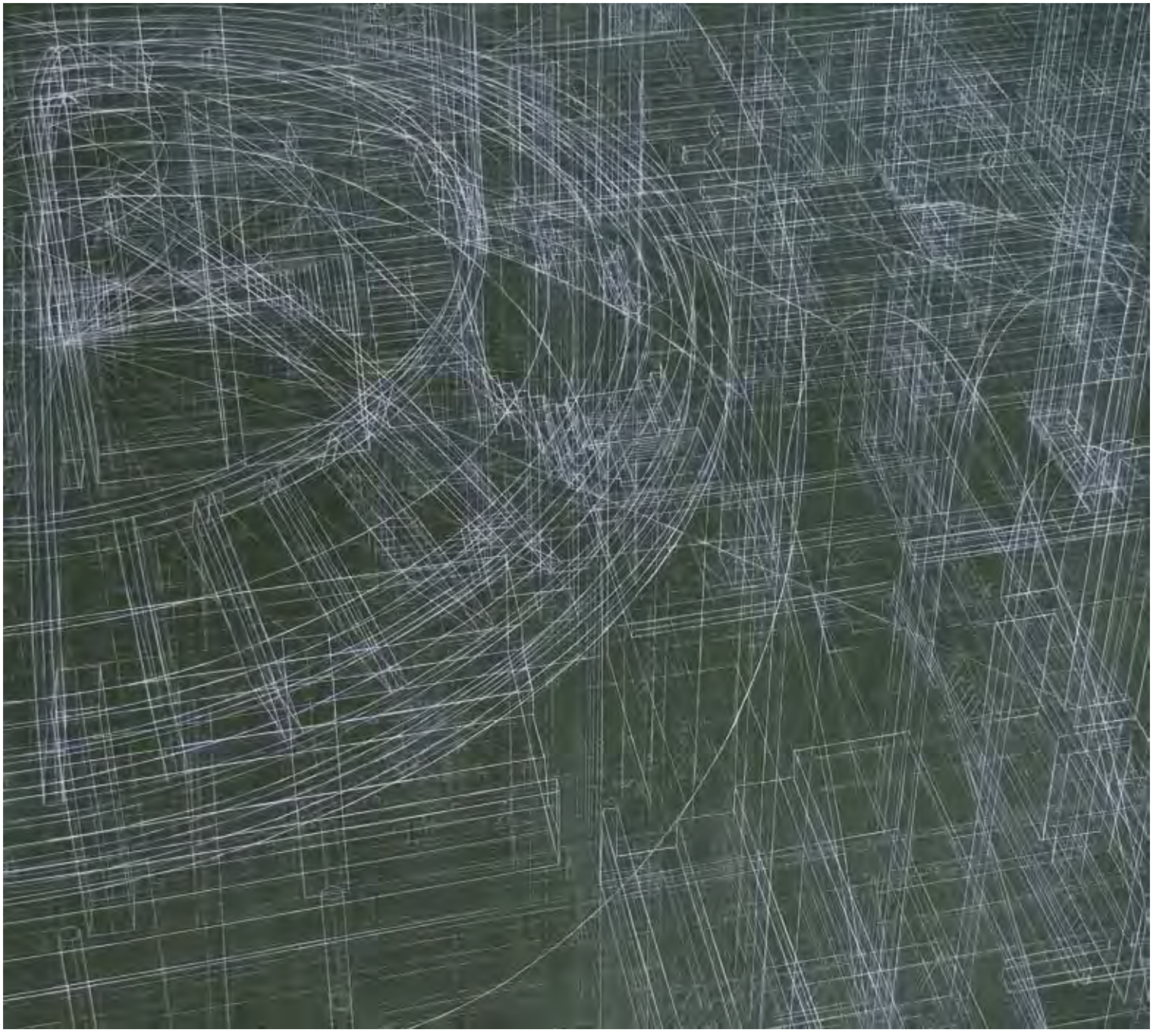
Each canvas bears pentimenti, traces of change. Goldsleger regards these residual marks, like the addition of lines unrelated to the structure of the building itself, as a means to amplify the energy and enhance the imaginative dimension of these monumental compositions. With *Academy*, her final drawing for the project, Goldsleger augmented the lower half of the view with a series of zigzag lines that complicates the space and activates it for the viewer. In this way Goldsleger has drawn attention to the formal beauty of Goodhue's design, and yet the vision she presents is entirely her own.

"Architecture," writes architectural historian and critic Vincent Scully, "is a continuing dialogue between generations." Goldsleger's sculpture and large-scale drawings offer an eloquent embodiment of this sort of ongoing conversation, giving us a record of her own intensive engagement with one distinguished building even as she encourages us, through our own varied responses to her work, to extend the dialogue further.

Much as one's perspective shifts and multiplies as Goldsleger's two- and three-dimensional work is experienced within the very space of Goodhue's building, so, too, does one's understanding of the structure as a passage of sorts for the sciences. Goldsleger's cross-media interpretation of Goodhue's design presents itself as a metaphor for the exchange of ideas that has been fostered within the walls of the NAS building. In her study of the Goodhue building Goldsleger, like a scientist, has shown herself to be deeply involved with a specific, empirical phenomenon. And in the spirit of the best scientific inquiry, she has also moved beyond what we already know and guides us into new, unheralded territory.

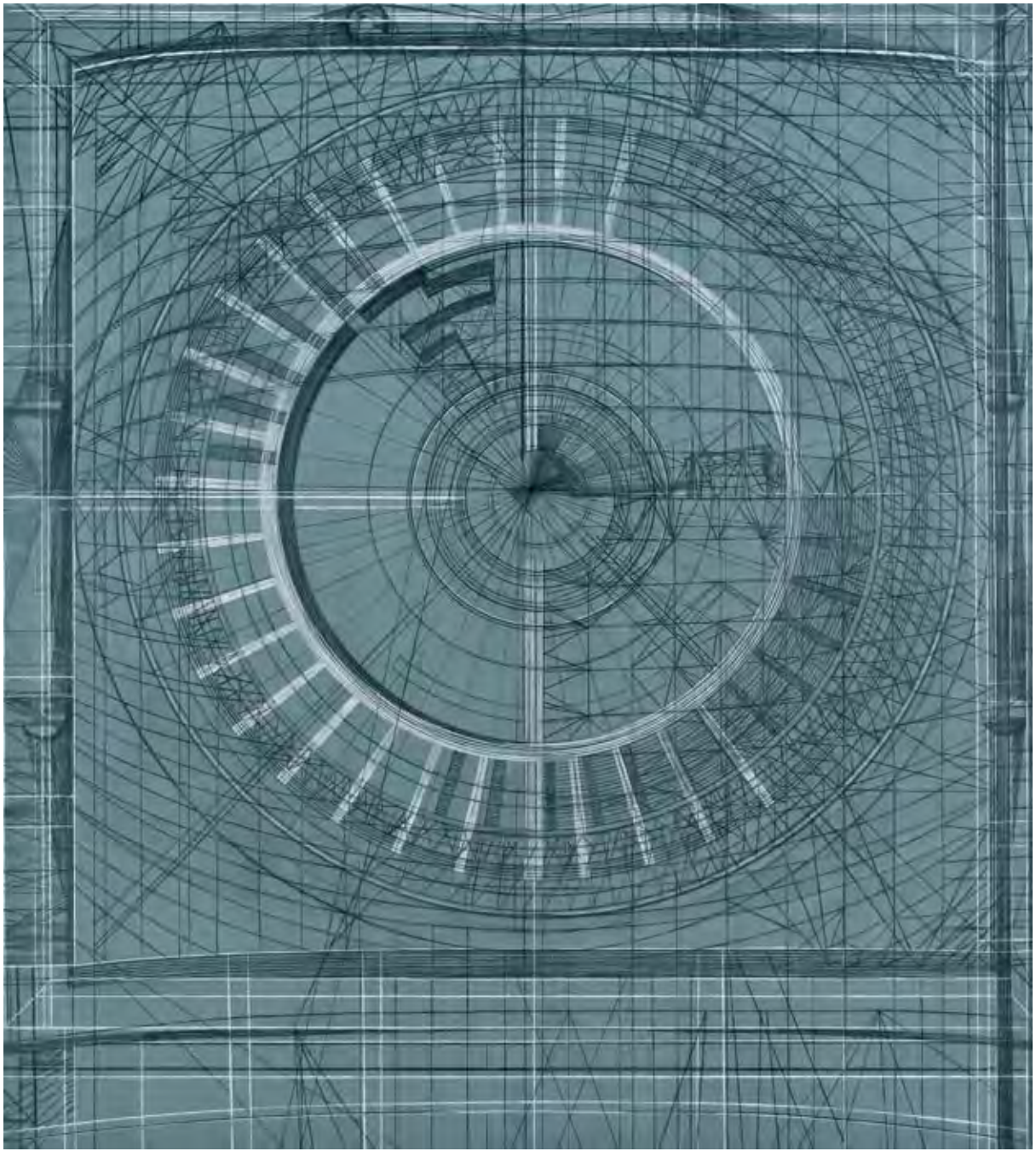
Rena M. Hoisington
Curator and Department Head
Department of Prints, Drawings & Photographs
The Baltimore Museum of Art

Library, 2012, mixed media on linen, 62 × 70 inches



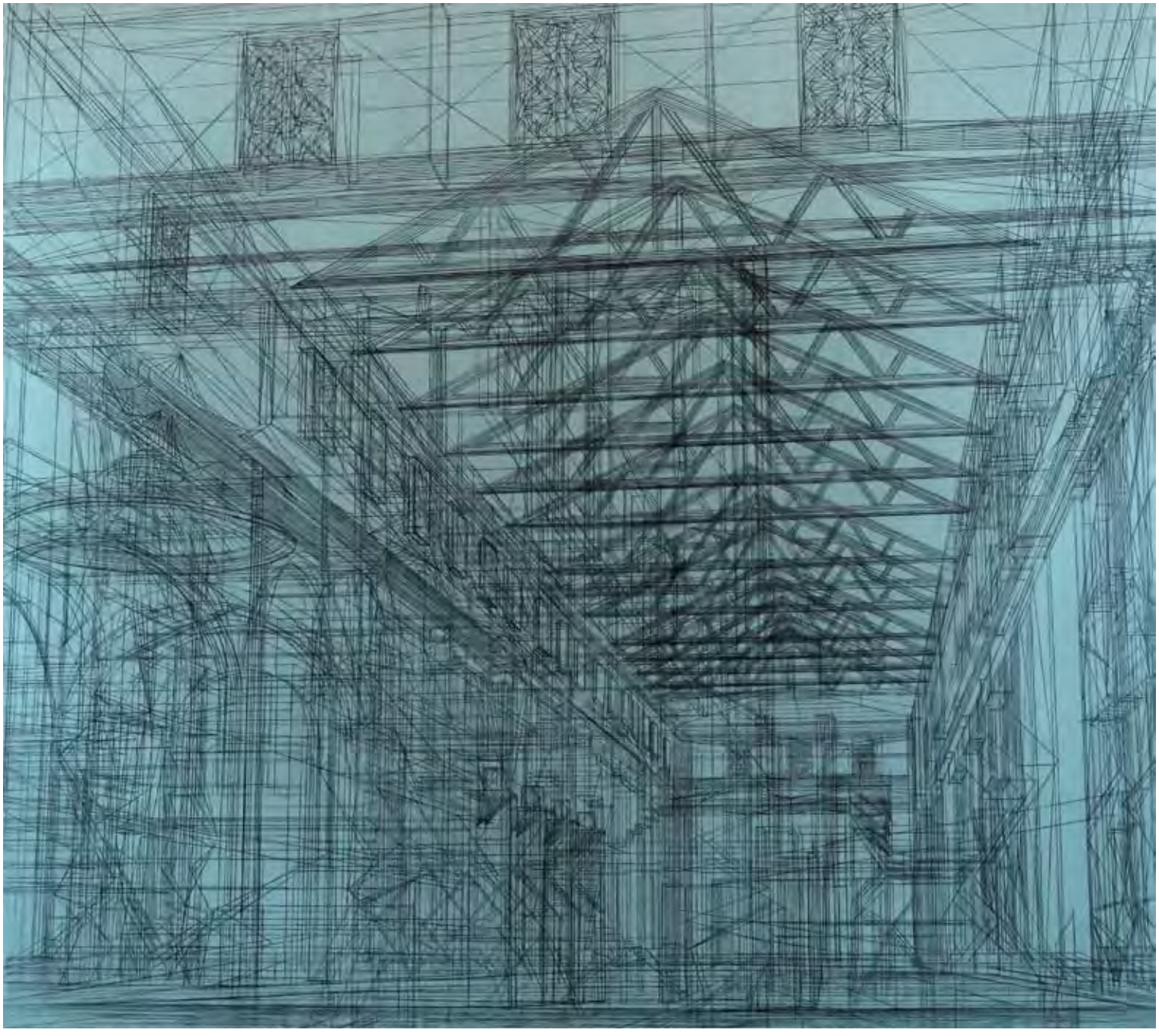
Rotunda, 2012, mixed media on linen, 62 x 70 inches

Riser, 2012, mixed media on linen, 70 x 62

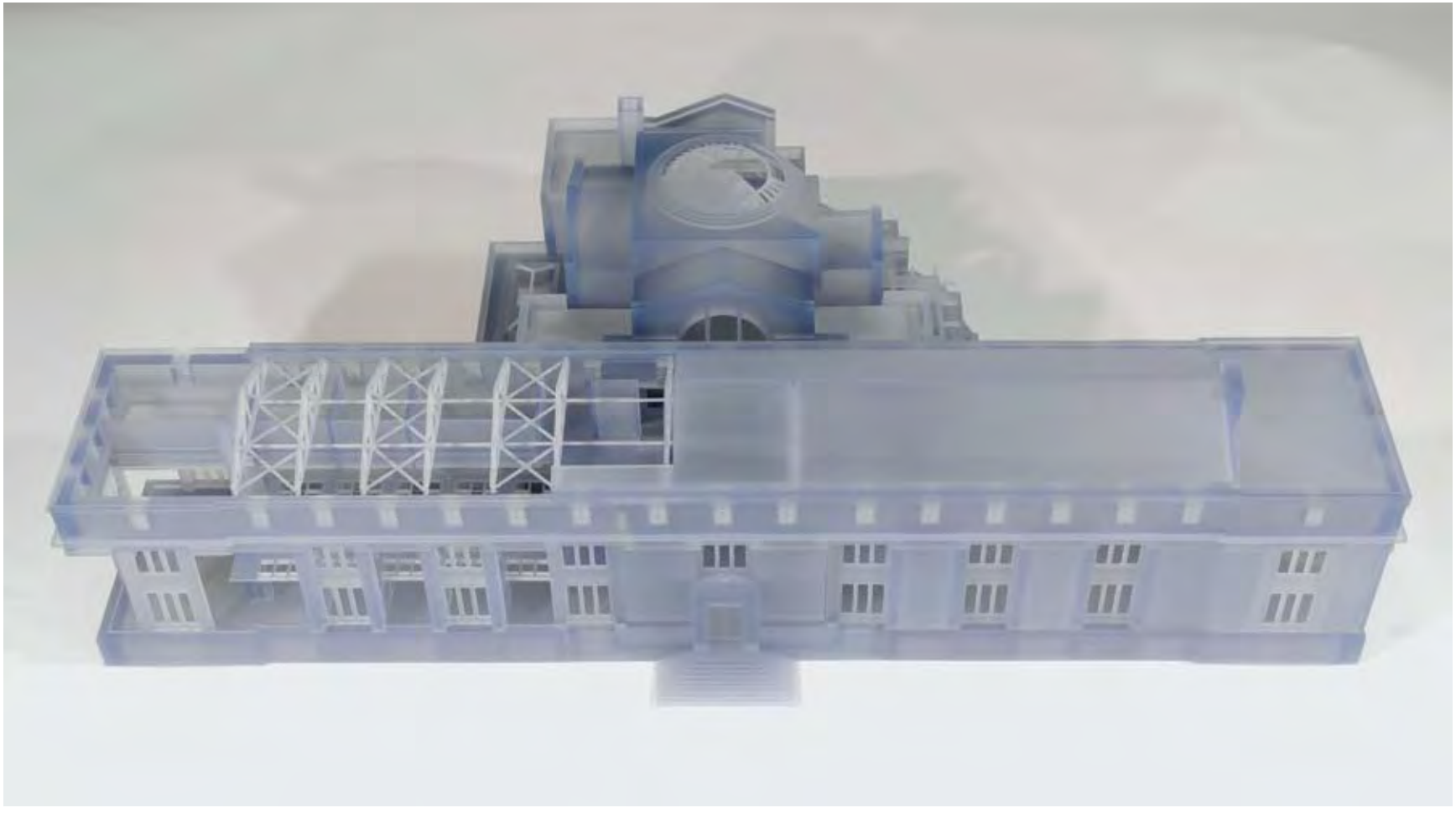


Azimuth, 2012, mixed media on linen, 70 x 62 inches

Axis, 2012, mixed media on linen, 62 x 70 inches



Academy, 2012, mixed media on linen, 62 x 70 inches



The NAS Project: Bertram Grosvenor Goodhue, George Ellery Hale, and Gano Dunn's Vision, 2011, Acura 60 (photopolymer resin)

The NAS Project: Bertram Grosvenor Goodhue, George Ellery Hale, and Gano Dunn's Vision, 2011, detail

The artist wishes to express appreciation to the National Academy of Sciences, the Cultural Programs of the NAS, J.D. Talasek, Janice Goldblum, and Alana Quinn for their support. The technical assistance provided by Allison Isaacs, Dema Hajmurad, Dave Thompson, Mike Overbey, Stephen DeLorme, Saif Khan, Paige Taylor, Larry Millard, David Millard, and 3D Systems and its subsidiary 3D Proparts is gratefully acknowledged. Special gratitude is extended to Georgia State University for funding in part the research and production of artwork in the exhibit through a Scholarly Support Grant and a CENCIA award.

Since 1863, the National Academy of Sciences has provided independent, expert advice on some of the most pressing challenges facing the nation and the world. Founded by a congressional charter signed by Abraham Lincoln, the National Academy of Sciences eventually expanded to include the National Research Council, National Academy of Engineering, and Institute of Medicine. This year we celebrate our 150th year of service to the nation and our continuing commitment to excellence in science, engineering, and medicine.

The mission of the office of Cultural Programs of the National Academy of Sciences (CPNAS) is to explore the intersections of art, science, and culture through the presentation of public exhibitions, lectures, and other cultural programs. The National Academy of Sciences (NAS) is a private, nonprofit, self-perpetuating society to which distinguished scholars are elected for their achievements in research, and is dedicated to the furtherance of sciences and technology and to their use for the general welfare. Upon the authority of the charter granted to it by the Congress in 1863, the NAS has a mandate to advise the federal government on scientific and technical matters.

Rotunda (detail)
2012
Mixed media on linen
62 x 70 inches