



Corcoran School of the Arts & Design

Owner

The George Washington University

Size

120,000 SF renovation

Cost

\$47.5 million

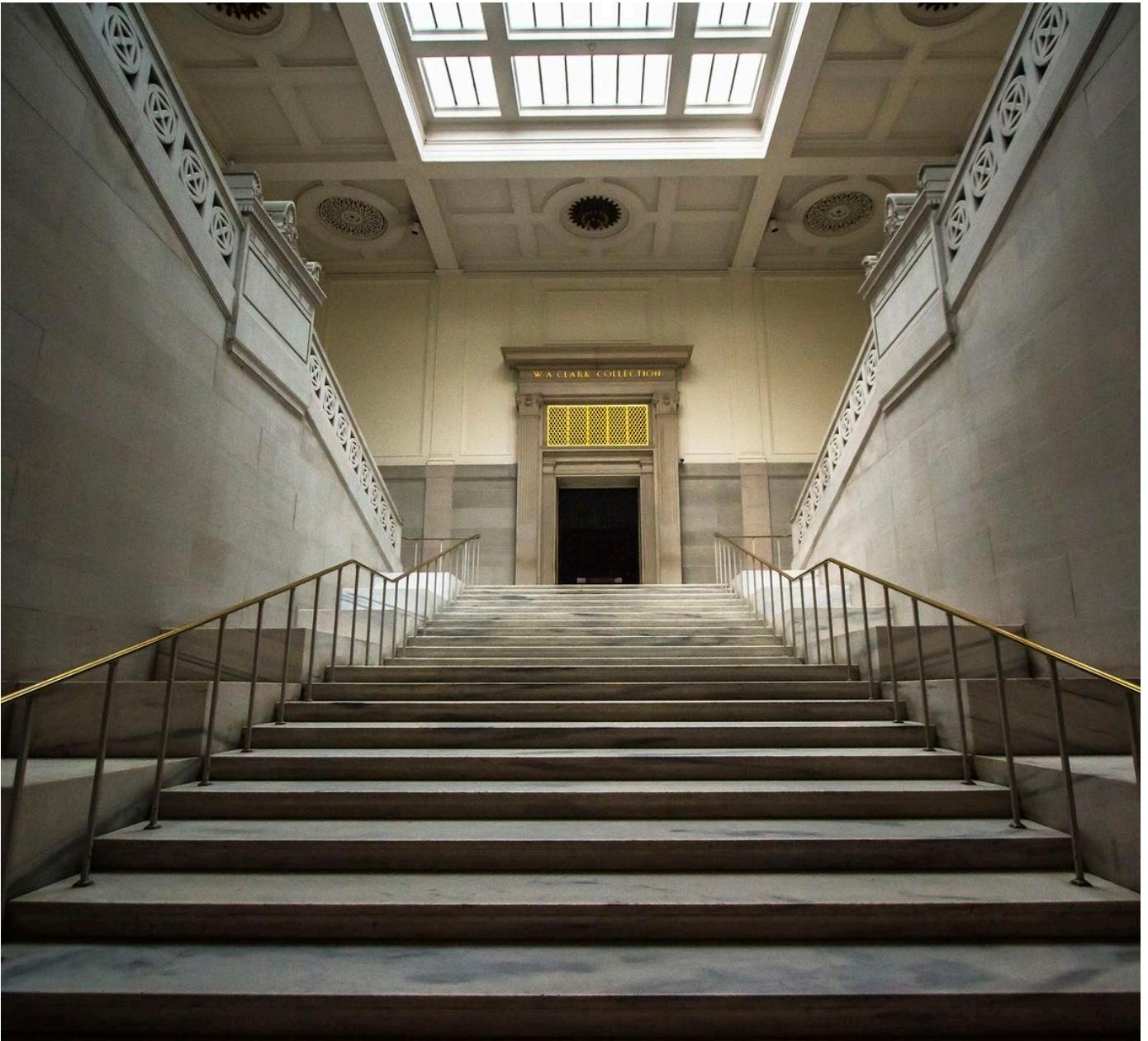
Completion date

2018

In 2014, following decades of financial struggles, Washington's storied Corcoran Gallery dissolved, entrusting its 17,000-piece art collection to the National Gallery of Art and its 1897 Beaux-Arts home to the George Washington University. To keep the Corcoran's legacy alive, GW integrated its arts + design program into the larger university and undertook the most significant renovation and modernization of its Ernest Flagg-designed building in 90 years.

The renovation reimagines the National Historic Landmark gallery building as a state-of-the-art environment for arts education and exhibition, complete with four floors of classroom, studio, administration, fabrication and gallery space. Several original galleries have been repurposed as light-filled studio spaces, with care taken to protect the historic fabric. All new building systems have prepared the building for the safe return of artworks from the Corcoran Collection, now housed at NGA.

The project preserves a significant piece of Washington's architectural and cultural fabric. Modernized fire-suppression stabilizing the building after decades of deterioration and surgically inserting the required code, infrastructure and programmatic improvements. New systems, mechanical, electrical and plumbing upgrades, and accessible ramps, restrooms and elevators make the structure viable for a new era of immersive arts education at the Corcoran.



A history worth preserving

One of the first private museums in the United States, the Corcoran Gallery of Art was established in 1869 by banker and art patron William Wilson Corcoran to be “dedicated to art and used solely for the purpose of encouraging the American genius.” For 145 years, the Corcoran nurtured artists and designers in an architecturally rich environment populated by works of classical and emerging masters. Located across from the White House, it played an important role in Washington life, directing resources toward diverse communities across socioeconomic lines.

The building known as the Flagg Building was designed by American architect Ernest Flagg after the original Corcoran Gallery, now the Renwick (opened 1874), was outgrown. It was designed according to the classical tradition of grand European galleries, with a large central atrium, or colonnade, featuring arrays of Doric and Ionic columns and elegant Neoclassical details. It opened in 1897, nine years after Corcoran’s death, and received an addition in 1929. The building was placed on the National Register of Historic Places in 1971, with many of its interior spaces landmarked in 2015.



Principal challenge: Historic Landmark into State-of-the-"Art"

When the George Washington University accepted the gift of the Flagg Building they inherited the beautiful Beaux-Arts Style building along with its National Historic Landmark designation. This designation protected the exterior and, unusually, the interior of the building from being demolished or altered in anyway without the expressed permission of the DC Historic Preservation Review Board or U.S. Commission of Fine Arts.

This challenge influenced every other facet of this project, including efforts to:

- Understand building deficiencies without destructive testing
- Transform 19th century galleries into 21st century education spaces
- Install code-required fire-suppression systems without removing delicate plaster detailing
- Place new mechanical, electrical and plumbing systems completely out of sight
- Expand access to people of all abilities



Understanding building deficiencies without destructive testing

The building had seriously deteriorated after decades of neglect. Much of the design phase was spent discovering unknown conditions.

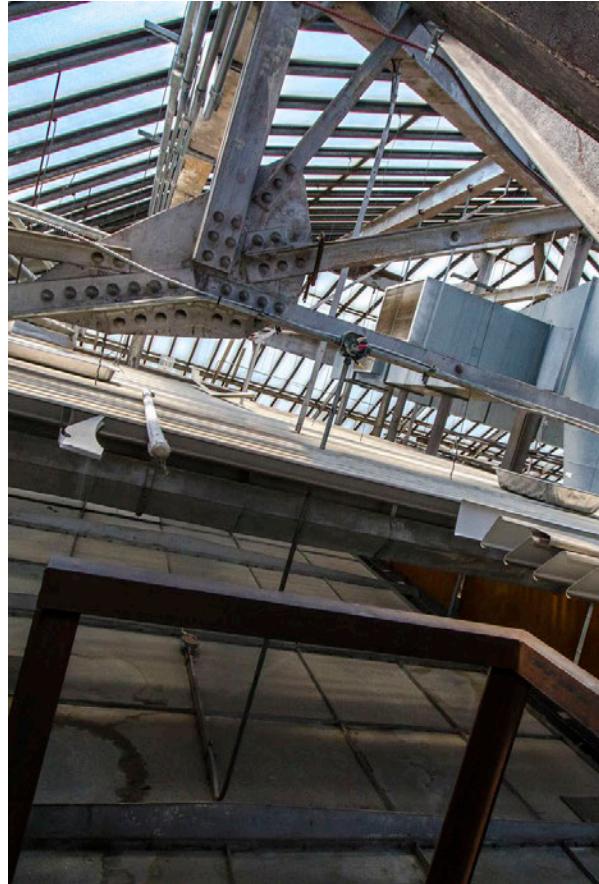
Original plans lost or damaged



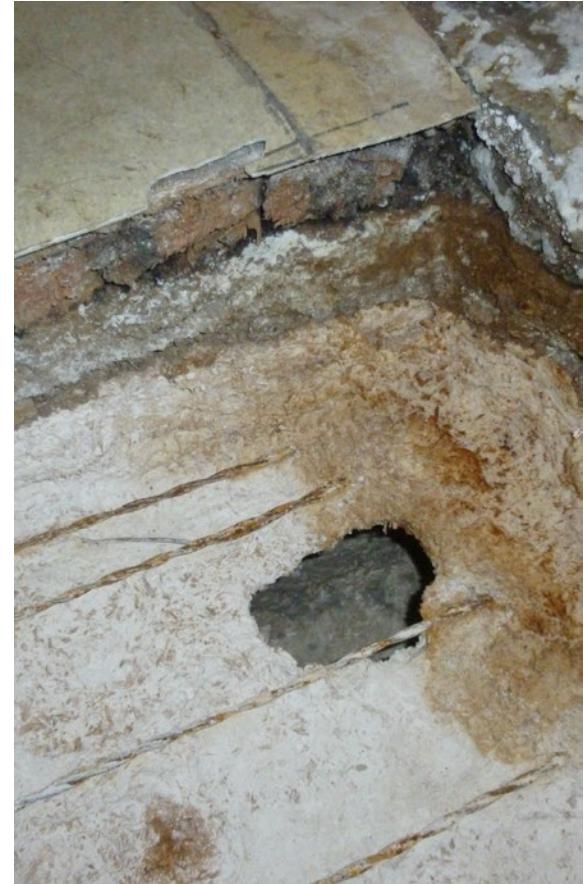
Building systems unlabeled



Moisture problems threatened artwork



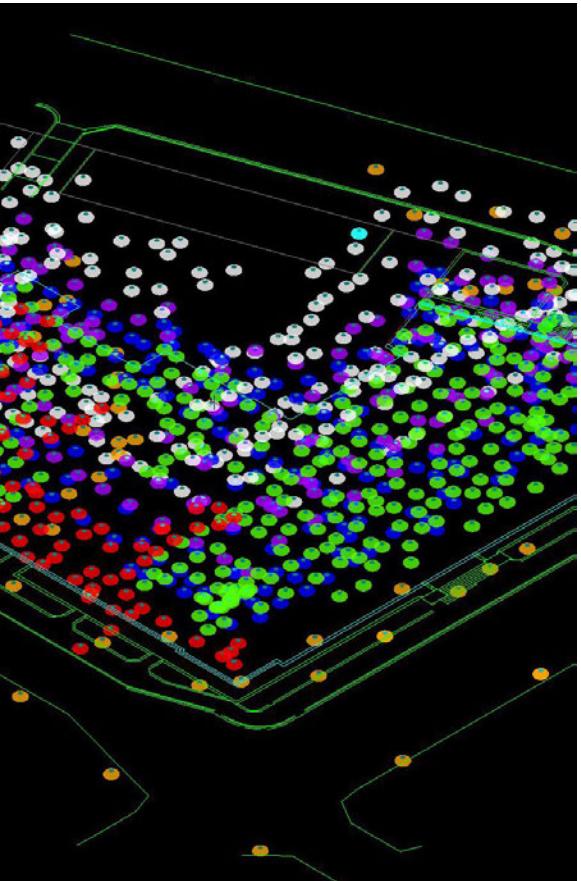
Archaic structural assemblies



Building a data ecosystem

To begin repurposing the building, a range of high-tech methods were needed to create a 3D model without damaging the historic fabric

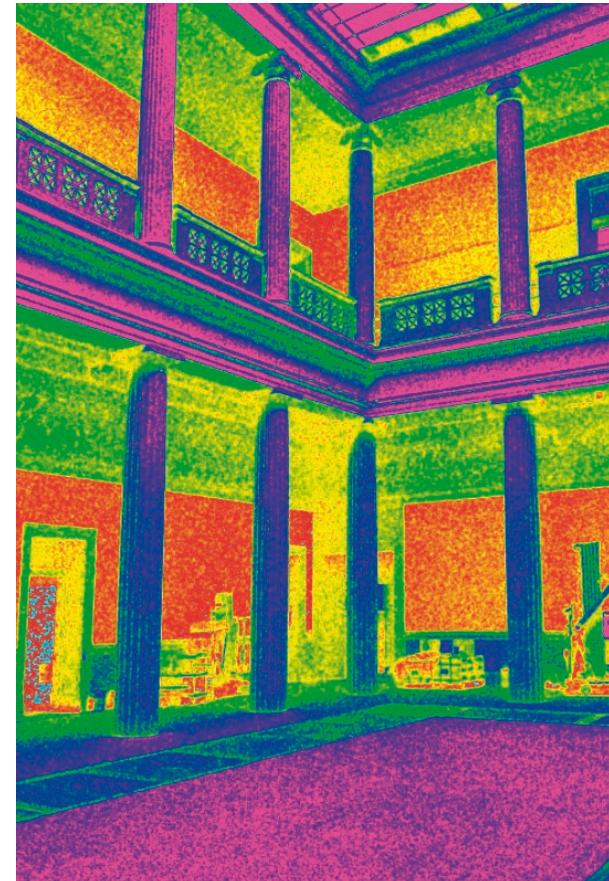
Laser scanning to replace missing as-built drawings



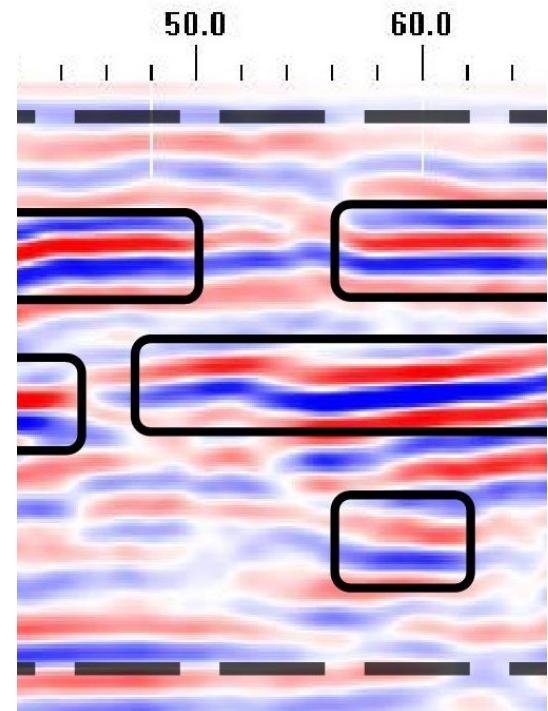
CCTV robots to untangle a maze of building systems from different eras



CFD and Hygrothermal analysis to meet NGA art conservation standards

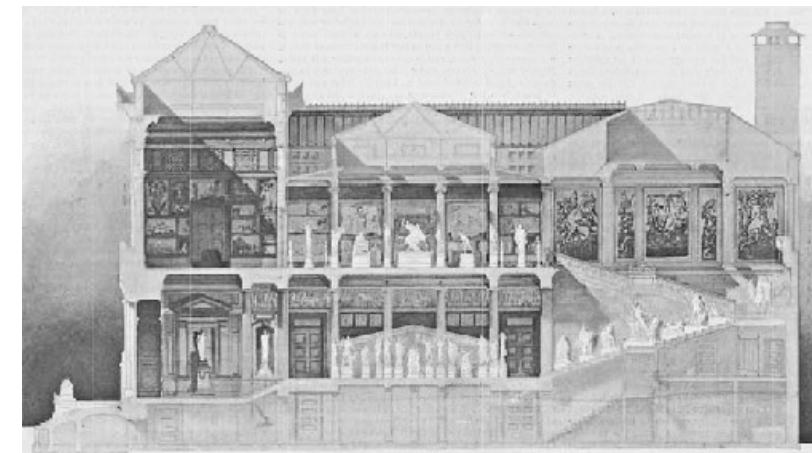
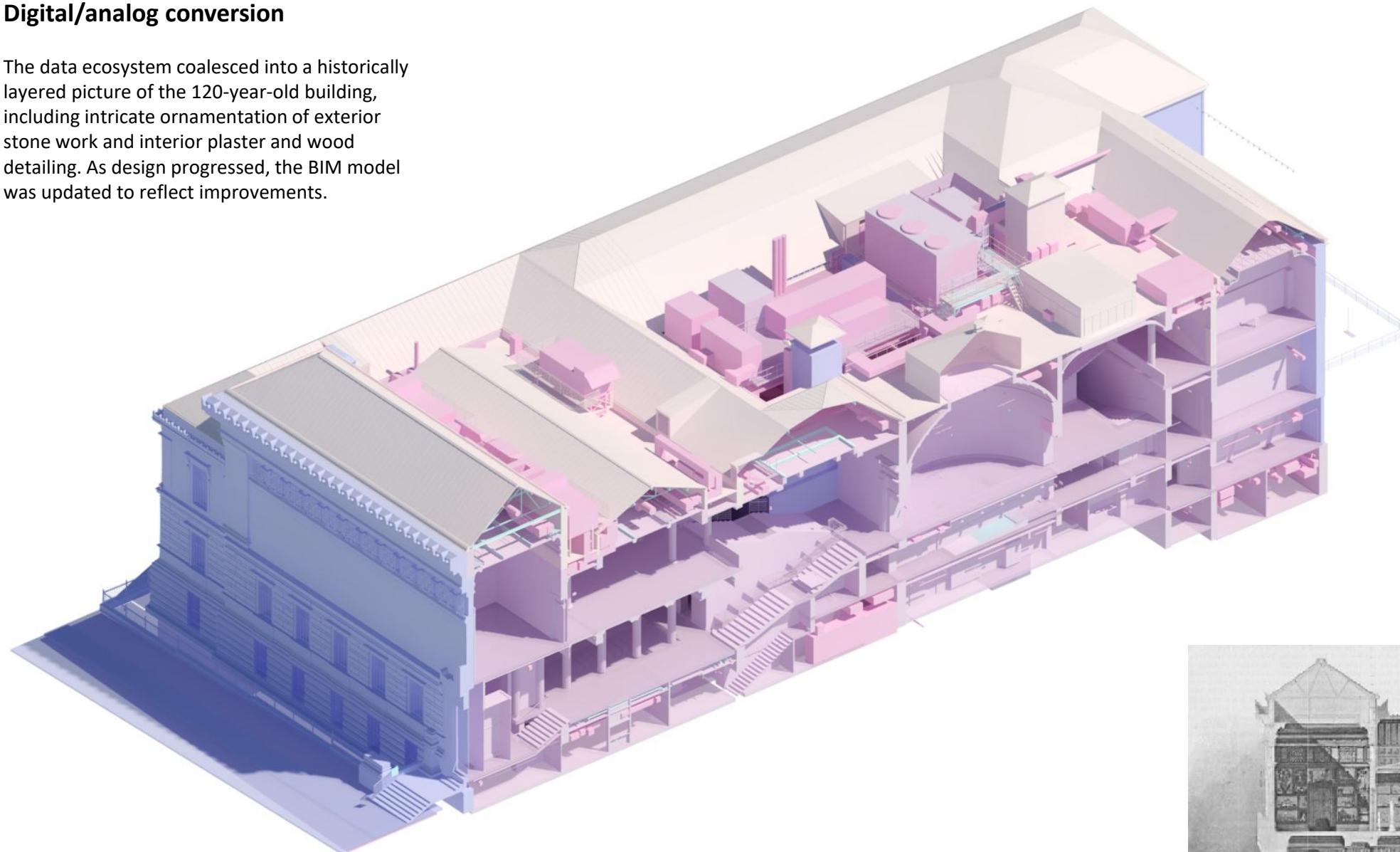


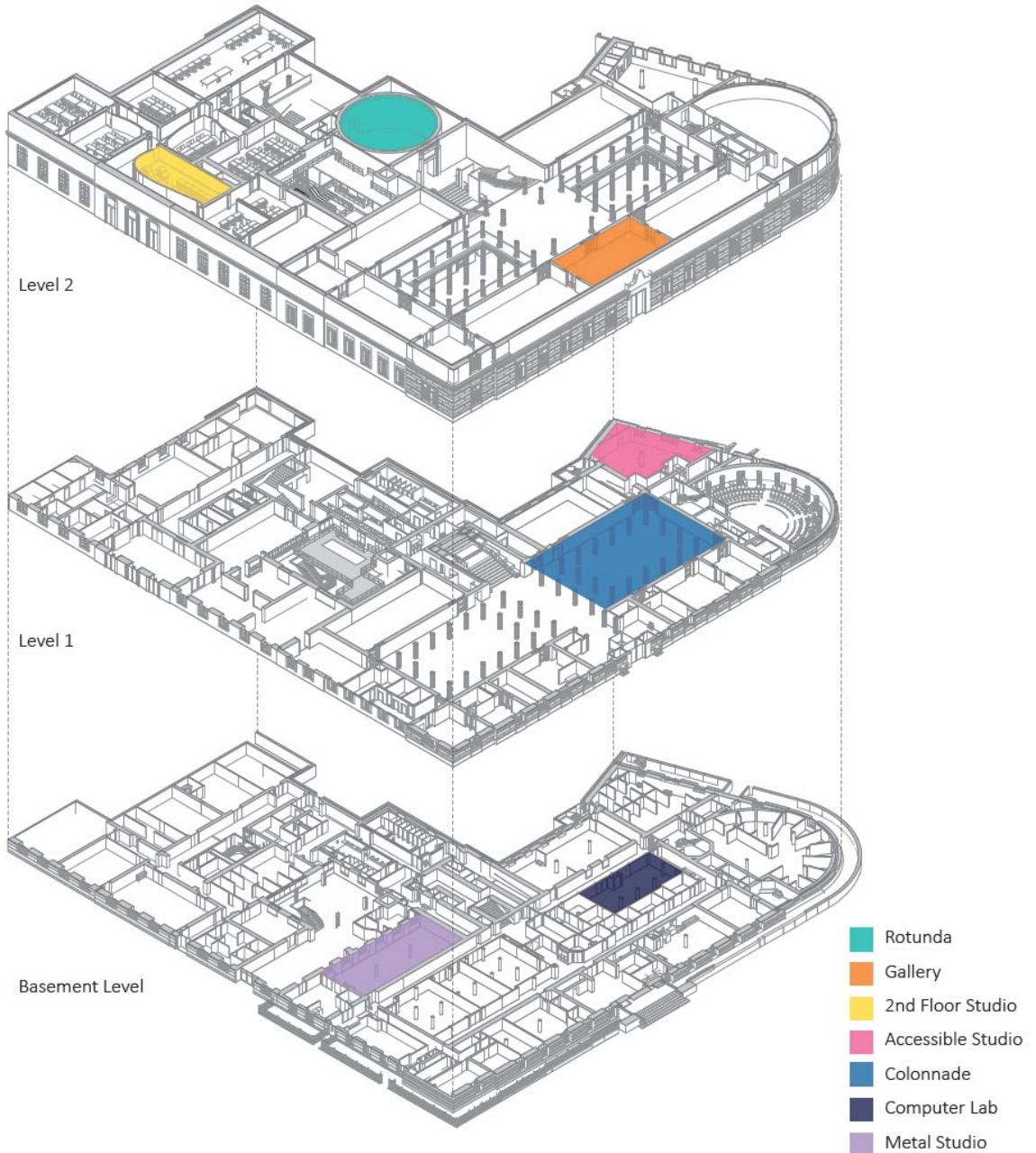
Ground-penetrating radar to document an archaic structural system



Digital/analog conversion

The data ecosystem coalesced into a historically layered picture of the 120-year-old building, including intricate ornamentation of exterior stone work and interior plaster and wood detailing. As design progressed, the BIM model was updated to reflect improvements.





Reprogramming the Corcoran

The new program places primary emphasis on education functions, with exhibition serving a supporting role. Classrooms have been elevated out of the basement level and given a new prominence in light-filled spaces. Art exhibition remains an important part of the Corcoran experience, with exhibitions shown in the Colonnade and planned for the second-floor Flagg Wing galleries once NGA phases of the project have been completed.

Transforming traditional galleries into 21st century education spaces

The Corcoran's original galleries were designed to enable the free flow of exhibit viewers from one space into another. Converting these spaces into usable classrooms and studios necessitated a new circulation pattern with buffer zones differentiated from learning spaces. Historic landmark restrictions prevented alteration to the coved ceilings or ornamentation. The solution was to consider the classrooms as objects in the larger space, with code-required ingress and egress wrapped around acoustically buffered classrooms.



Before



Every intervention reversible

A modern arts-education classroom in a historic shell, created without damage to the historic fabric. Fire suppression systems were surgically installed to preserve delicate plaster detailing and remain out-of-sight. Acoustic clouds create ideal classroom conditions. Restored laylights fill the learning environment with natural light.



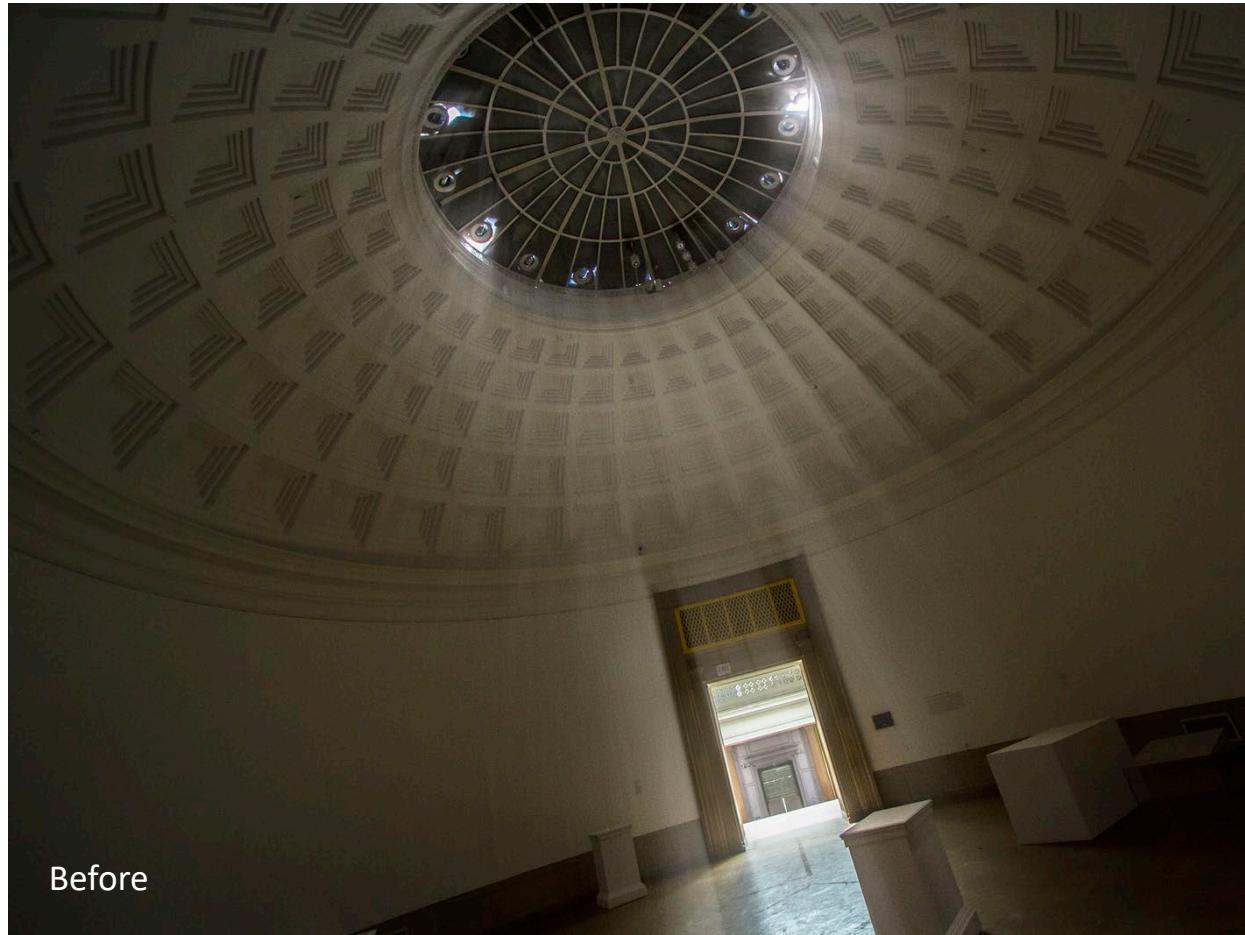
The heart of the Corcoran

The Colonnade is the heart of student life at the Corcoran, featuring exhibitions, musical performances and student gatherings. Perhaps the most dramatic space in the building, it is now returned to its former grandeur. Laylights and skylights above are refurbished, restoring natural light to the space. To accomplish this, all ducts, conduits and piping in the attic have been rerouted with surgical precision.



Rotunda

The Rotunda fell into darkness decades ago. The oculus lay lights and skylights above began to deteriorate in the mid-20th century and were covered over to prevent further water infiltration. The lay lights, skylight, coffered ceiling and ornamental plaster work has been refurbished with sprinklers and gallery lighting added.



Before





MEP Tetris

Solving the puzzle of how to fit the new, larger mechanical equipment into the minimal space available was central to meeting energy goals and a tight academic program. Space was extremely restricted in the attic, and equipment placed there could not be allowed to block natural daylight into the galleries or create shadows that would affect the viewing of art. Equipment was carefully threaded through the attic in the limited places that are outside the view planes of the original lay lights and skylights in the historic structure.

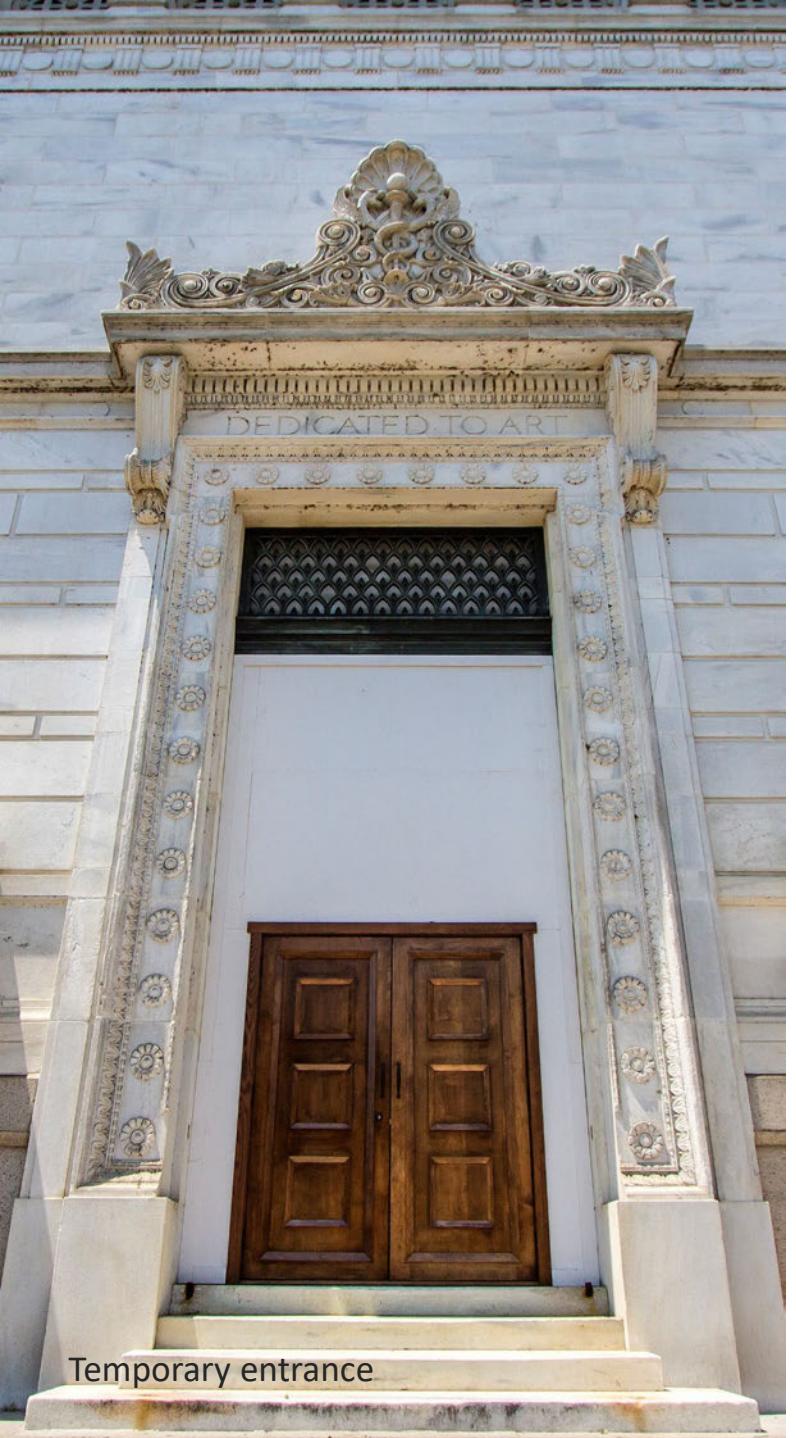
A sightline easement prevented the installation of a large mechanical penthouse on the roof. The solution was to infill a three-story courtyard with a multi-level equipment platform to house multiple air-handling units, a generator, and an egress stair tower that allows access for maintenance. Below the elevated platform, outdoor units associated with a variable refrigerant flow and heat recovery system serve the basement studios and classrooms, along with outdoor dust-collection units for the sub-basement metal and wood shops.





Accessible studio

This new studio is transformed into an accessible, acoustically open space. The ceilings were originally covered with moldings, which made the design and restoration process uniquely challenging. An ADA ramp was meticulously installed to make the space compliant.



Temporary entrance

Main entry restoration

The Corcoran's 17th Street entrance has been returned to prominence under the motto "Dedicated to Art," thanks to careful restoration of its bronze-clad doors. Approximately 4'x16' each, these monumental doors were not operational and permanently fixed in an "open" position when the project began. A glass vestibule inside served as the official entrance. An expert conservator removed the doors, installed a temporary entrance, restored the doors and reinstalled them in an operable condition.





Thank you