

Portfolio

Richard Chenoweth AIA Visiting Assistant Professor 2018-2022 Mississippi State University











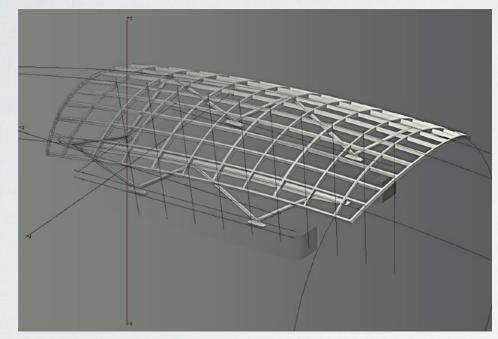


The Problem

Inspiration and Precedent

Metro Canopy Program, Washington Metro Area Transit Authority (WMATA) (2001-present)

WMATA sought a prototype canopy to cover more than fifty metro well-ways of various dimensions and proportions. They held a national competition. Lourie & Chenoweth LLC won the competition in July 2001. Chenoweth was Principal Designer of the prototype. Lourie & Chenoweth LLC together have designed about fifty canopies since that time.



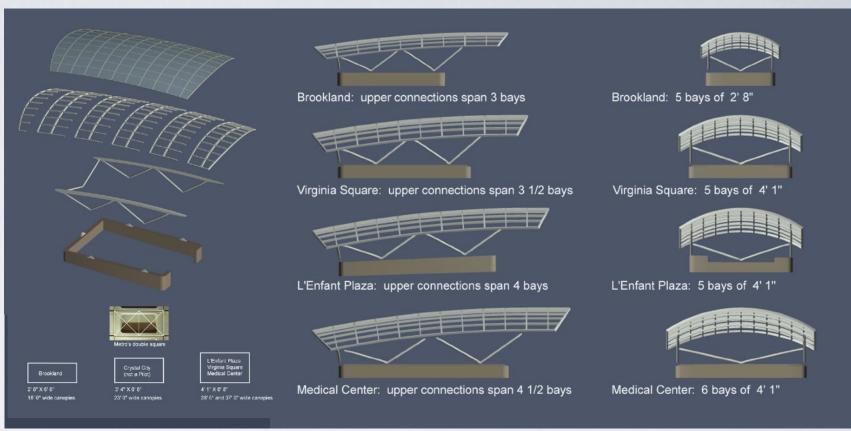
The Solution

The form of the canopy began as a glazed sail vault form that was adapted to respond to respond proportionally to the concrete vaults of the underground. The underlying geometry is based on intersecting longitudinal and transverse radii creating a geometrical torus that can be expanded and contracted to accommodate well-way openings of any size or proportion.

The glazed sail vault form is supported by sculptural tapered struts that touch down at only five anchors along the existing parapet. The entire kit-of-parts can be erected in six hours without shutting down the station.

Sheer glass surface slopes away from entrance in every direction. All technical criteria are maintained such as rain angle and overhang. All wiring for lights and security are routed through the steel.

The canopies fit into all of Washington's urban conditions. They are shelters from the weather; beacons in the night; pavilions in the landscape; places of orientation; places to meet and gather; they are instantly recognizable; they are transportation icons.



Constructability - Modularity - Geometric Adaptability











Detailing



L'Enfant Plaza (the subject of the competition)





Woodley Park





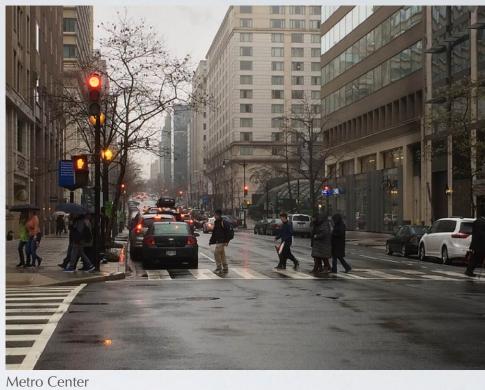
L'Enfant Plaza



Crystal City



Virginia Square





College Park

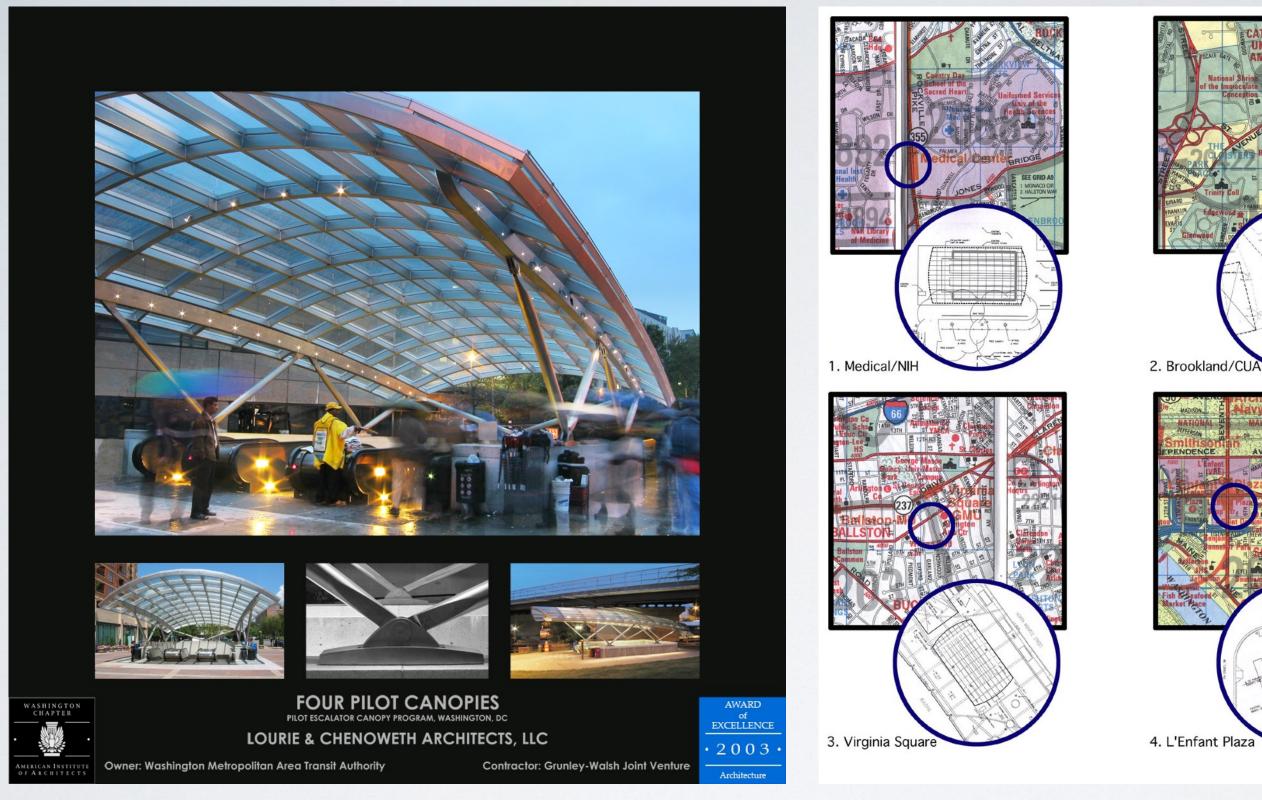


Metro Center



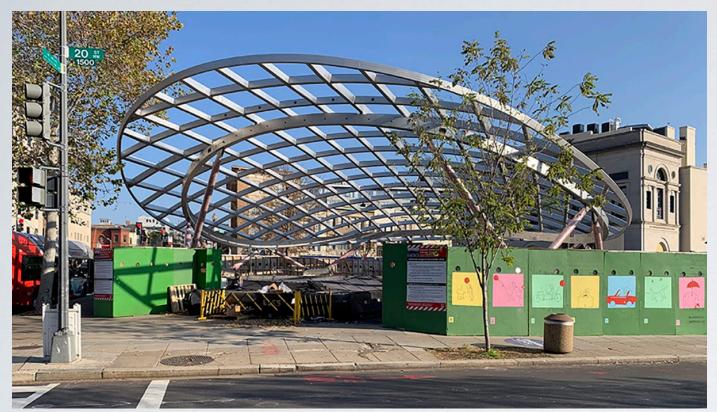
Dupont South

Brookland / CUA

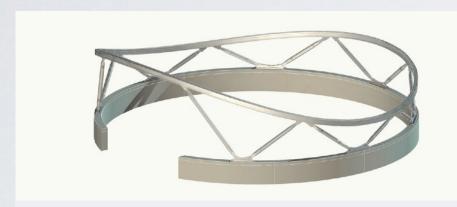


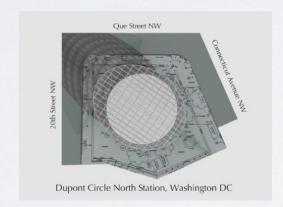
2003 Washington Chapter AIA Award for the Pilot Program

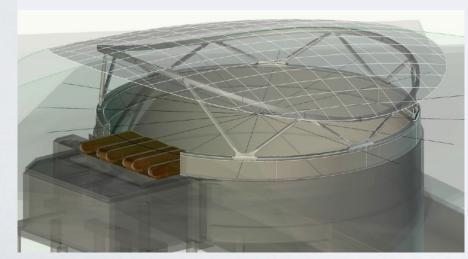
Location of the four Pilot Program canopies

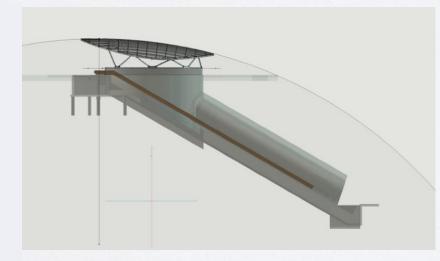


Dupont North Station - the largest canopy in the system









A harmonic arrangement of circular geometries



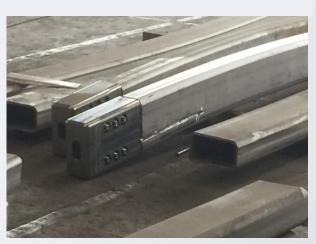
Making the giant Ring Girder

Dupont North Station - largest in the system











Smithsonian North

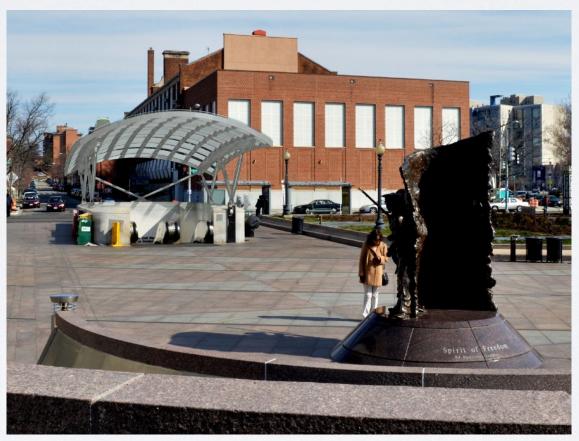
National Park Service Canopies

The NPS Canopies were specialized. Although Metro owned the well ways and aprons, the NPS owned the surrounding land and had a certain amount of control over their design. Ultimately, the U.S. Commission of Fine Arts had final say over the

Lourie and Chenoweth were asked to tweak the Prototype Design (approved by CFA and NCPC in 2002) by tightening the geometries and lowering the structures to deemphasize them within their new surroundings. These computer images show what they will look like when built.



Arlington Cemetery



U Street - African American War Memorial



Judiciary North



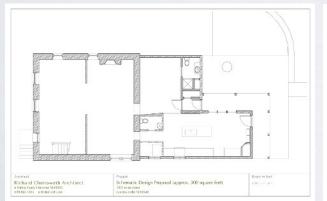
National Archives



Renovation of a Carriage House, Oxford MD Architect



Competition Entry for NPS Indian Memorial, Little Bighorn River Architect (with Robert Dudka RA)



Addition to a historic house, Princeton NJ Architect

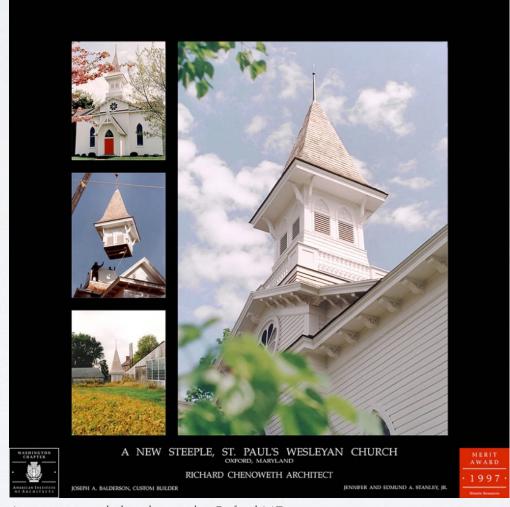


Renovation of a Residence, Silver Spring MD Architect-Builder: Front and side porches, dry laid stone wall, landscape, fence, driveway, interiors, lighting

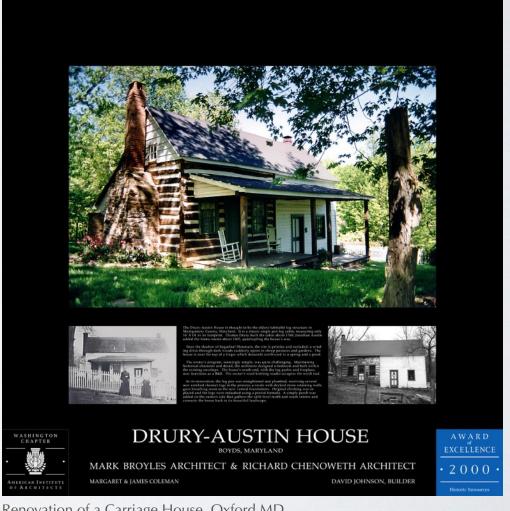








A reconstructed church steeple, Oxford MD Architect



Renovation of a Carriage House, Oxford MD Architect (with Mark Broyles AIA)



Renovation, Boiling Springs PA - Project Architect

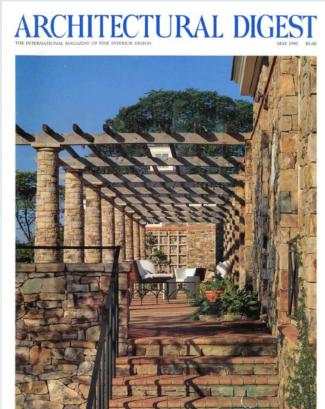


Renovation, Boiling Springs PA Project Architect > All aspects of project

Project Architect

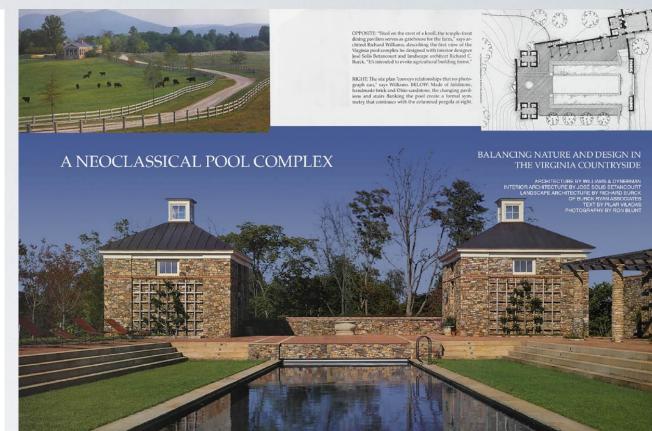


The Site Plan



Country House - Rappahannock VA Staff Architect > Detailing in stone, wood, metal





Country House - Rappahannock VA Staff Architect > Detailing in stone, wood, metal

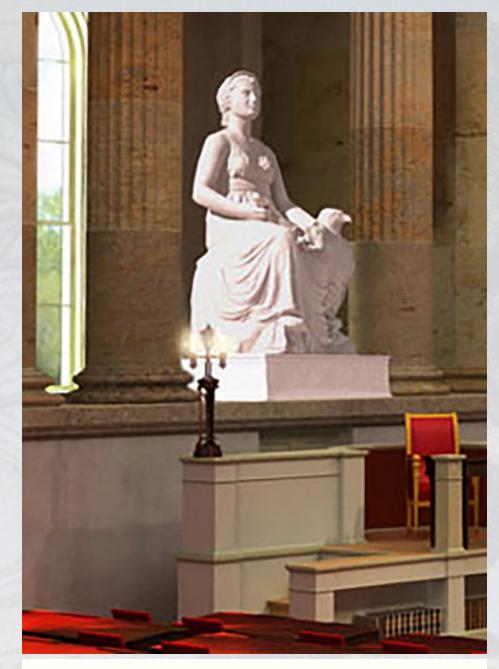


Staff Architect

My research agenda as an architectural historian is the forensic digital investigation of lost or destroyed architecture using original drawings, letters, and documents. I am fascinated by the stories and mysteries of human endeavor. My main goal is to tell complex historical narratives using visual and spatial evidence that otherwise could not be fully understood. I have developed a methodology for investigating architecture through these resources using computer modeling and digital imaging. I can use my resulting computer models for an objective analysis of the form, as well as for a subjective analysis, that is, in the way that forms are perceived in space. I use realworld lighting techniques, closely related to Image-Based Lighting. I have been able to simulate the bouncing of light throughout complex spaces such as architectural interiors, and bring to life a subject that previously may only have existed on paper. Currently, I am exploring video and special effects presentations of my computergraphic findings.

Specifically, my research efforts have focused on the visionary and the destroyed works of B. Henry Latrobe at the U.S. Capitol. I have received three research fellowships from the U.S. Capitol Historical Society for this research. The work is organized into eight chapters at this time. My latest paper was on Latrobe's design for an Egyptian Library of Congress from 1808. The chapter prior to that one is my reconstruction of the Latrobe-Franzoni Statue of Liberty of 1807 (it was inside the Capitol) which I sculpted in clay (for-plaster) and then scanned in 3D. Discovering and analyzing lost works and cultural landscapes using digital methods has no precedent in the exploration of what is arguably America's most important building.

In my time at MSU, my historical research on the design and construction of the U.S. Capitol has been well received by my peers. My blind, peer-reviewed and doubleblind papers (and abstracts) have been presented to or have been accepted to SESAH 2021 (Southeast Chapter of the Society of Architectural Historians), SESAH 2020, SESAH 2019, the ACSA-ARCH 108th Meeting, the ACSA-ARCH 109th Meeting, and at the Richard Guy Wilson Symposium at the University of Virginia.



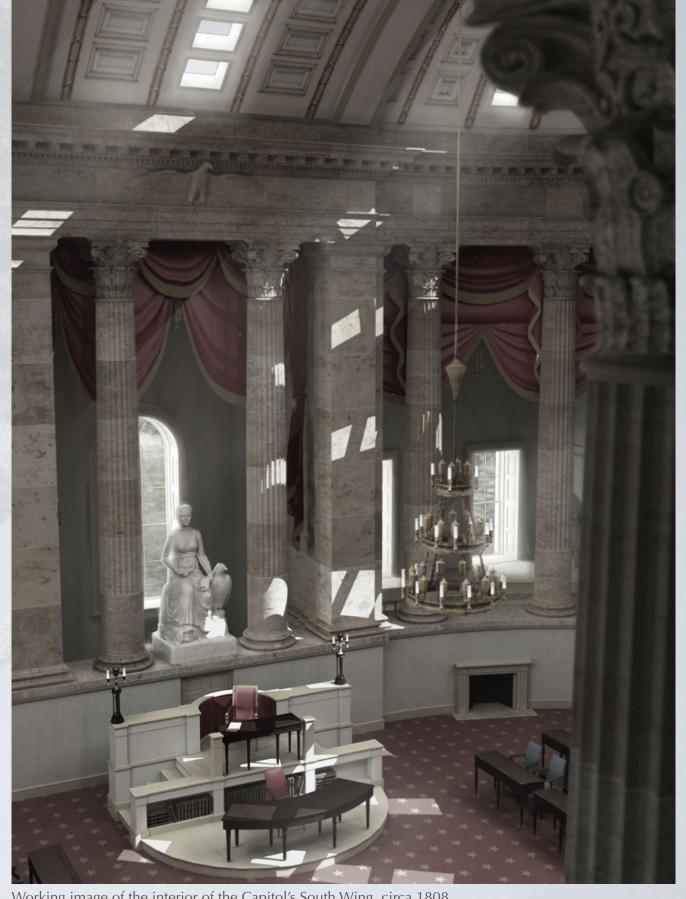
Convenient links to a few articles:

SESAH 2021 (30 September 2021) Egyptian Library http://www.mostbeautifulroom.com/images/pdf/2021-09-30-Egyptian-Library.pd

ACSA-ARCH 108th Meeting (2020) Statue of Liberty tbeautifulroom.com/2020-ACSA-108th-Che

Long format article for USCHS magazine Dome (2014) Hall of Representatives

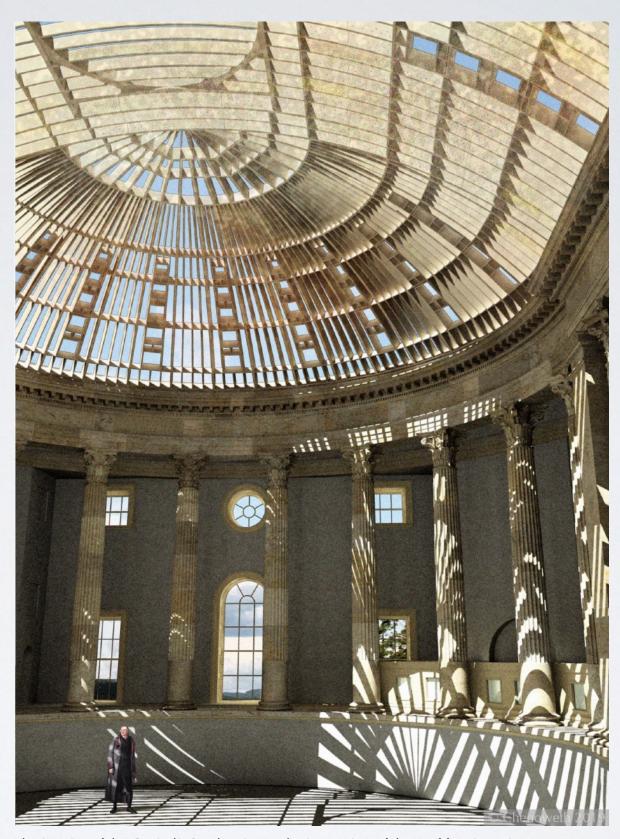
Condensed format article for Palladiana (2020) Hall of Representatives



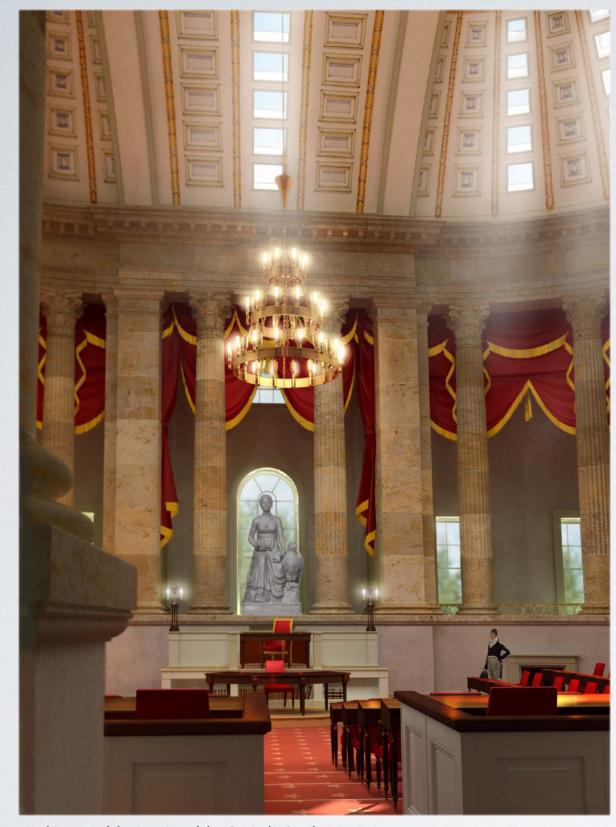
Working image of the interior of the Capitol's South Wing, circa 1808



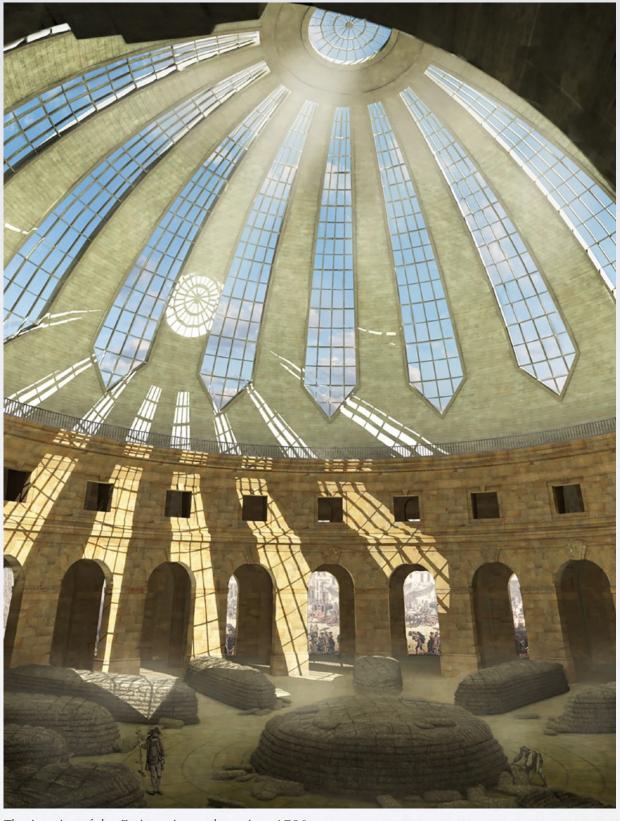
Final image of the interior of the Capitol's South Wing, circa 1808



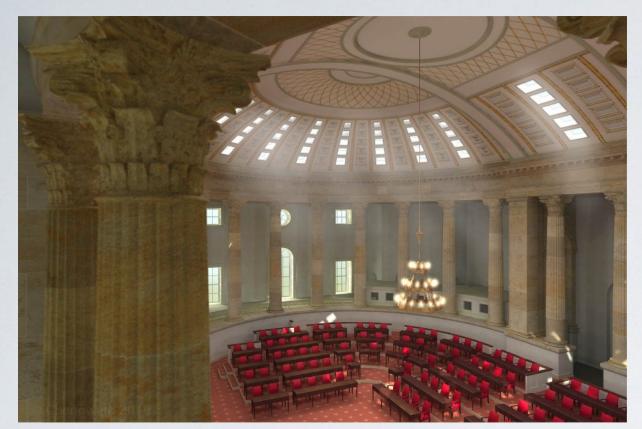
The interior of the Capitol's South Wing at the inspection of the roof framing, circa 1806



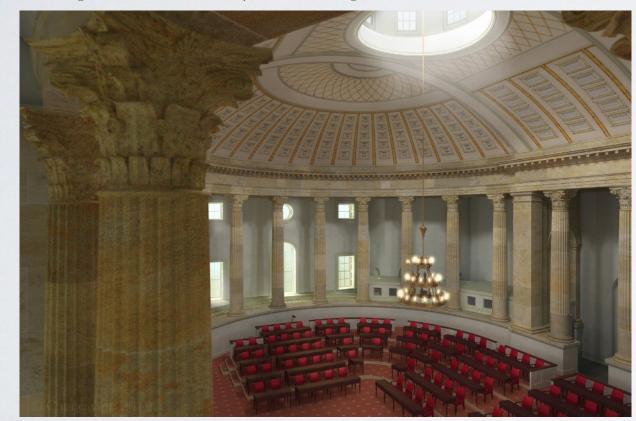
Final image of the interior of the Capitol's South Wing, circa 1808



The interior of the Paris grain market, circa 1786



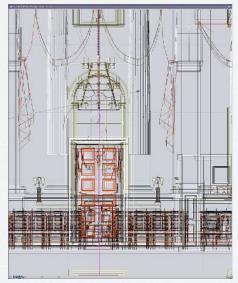
Final image of the interior of the Capitol's South Wing, circa 1808 - Jefferson version



Final image of the interior of the Capitol's South Wing, circa 1808 - Latrobe version



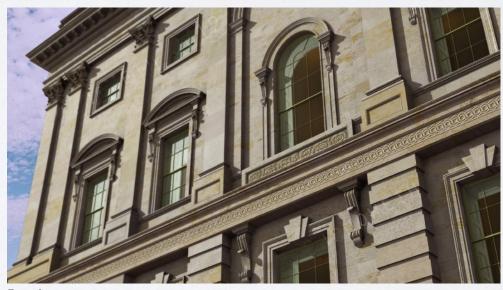
By the author



Wireframe



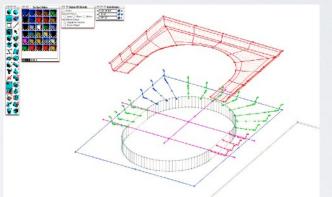
Sculpture of the reconstructed Statue of Liberty (1807)



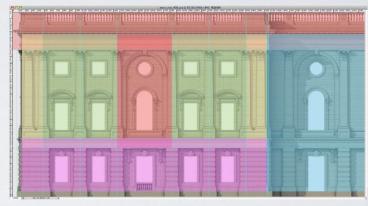
Exterior test



Example of the working computer model



Lofting

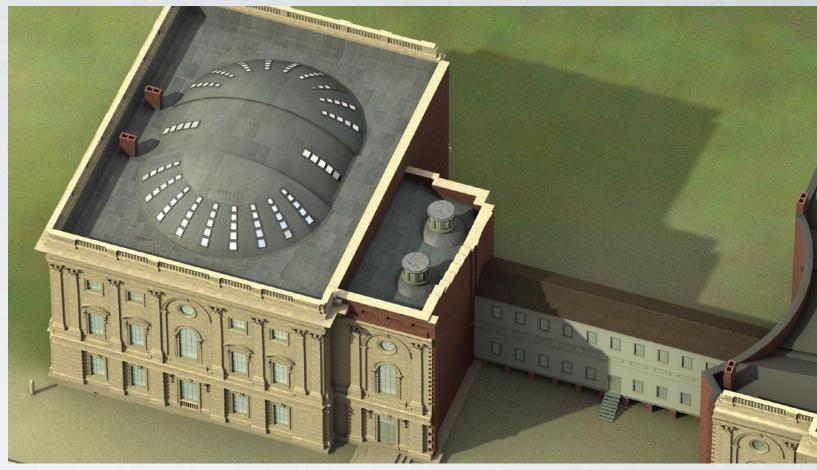


Texture mapping



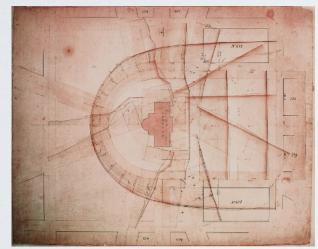
Setting up a scene





South Wing from above

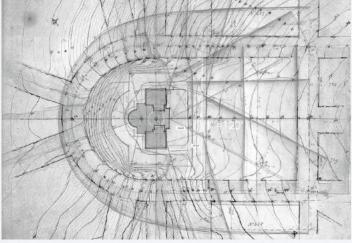
Final image of exterior, circa 1814



Latrobe's original survey



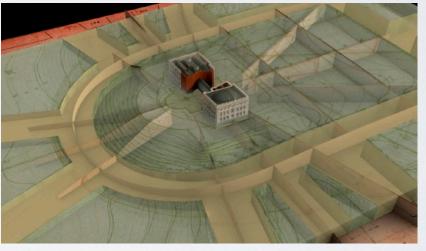
Original survey translated into topo



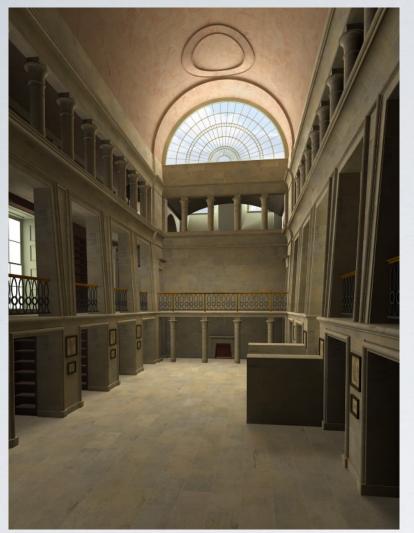
Composite with existing and landscape plan

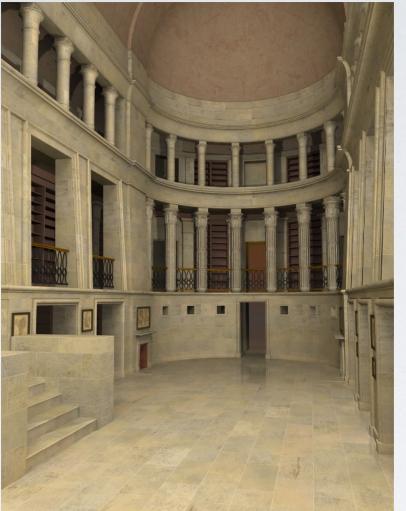


Latrobe's plan for the Capitol Hill

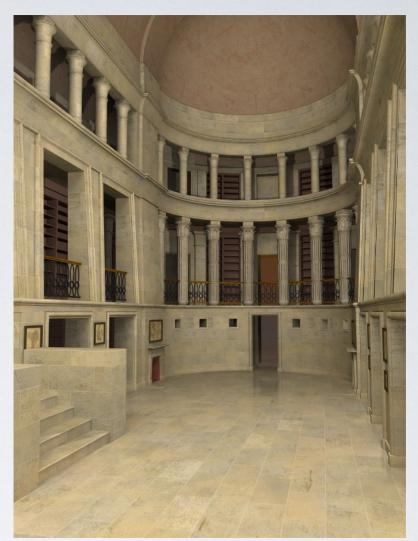


As a computer model for animation









Working images of the Egyptian Library of Congress (2021-09-30)

A selection of working images from my digital investigation of Latrobe's Egyptian Library. These are first-draft images. Will Include furniture, books, lamps, and other features of the room.



Parc Monceau Rotunda - Ledoux

Gabriel Prize



The Gabriel Prize is awarded for the study of French Classical Architecture. My

to understand better his design philosophy. The Prize, sponsored by the Western European Architecture Foundation, supports three months of residency in France to

My architecture advisor was Harold Roth FAIA. My French architecture advisor was Jean-Louis Nouvian. I am very grateful for the opportunity to have spent three months

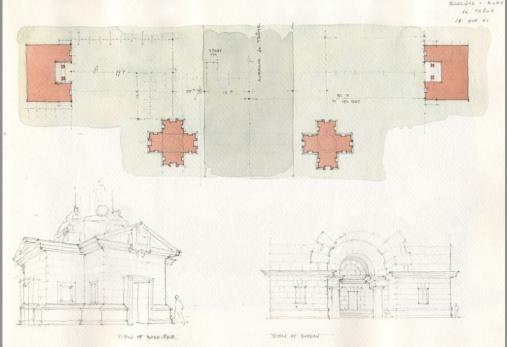
graphically explore one's chosen subject through painting and drawing.



Parc Monceau Rotunda - Ledoux

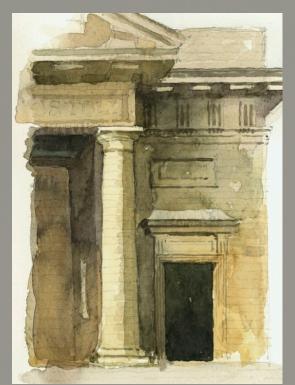


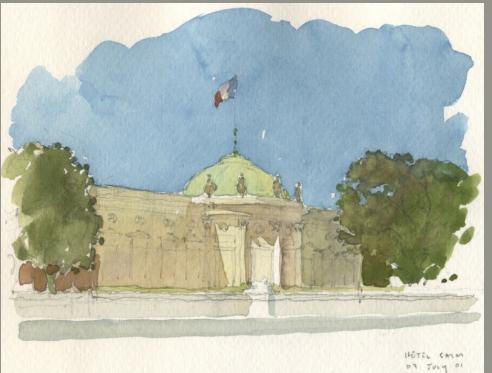
Monet's house



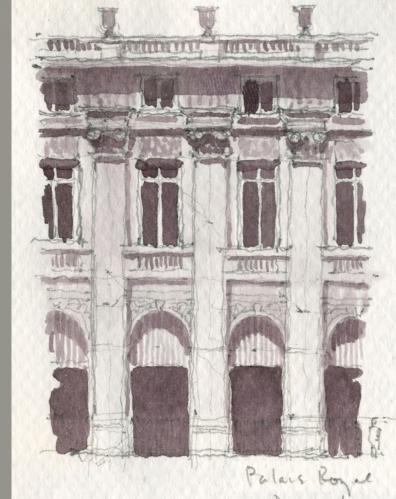
Barrière du Trône - Ledoux







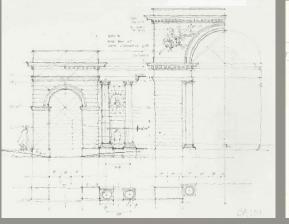
Hôtel de Salm - today called the Légion d'honneur

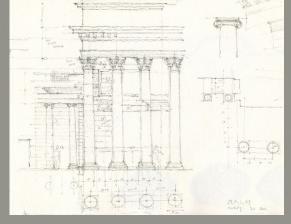


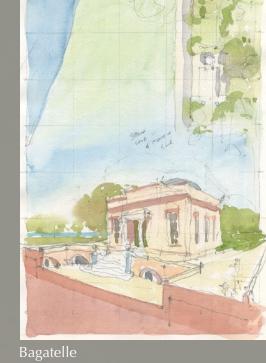
Palais-Royal

exploring historical sites and learning by doing.







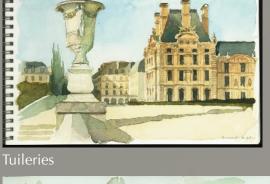




Pavillon du Butard



Gabriel Prize



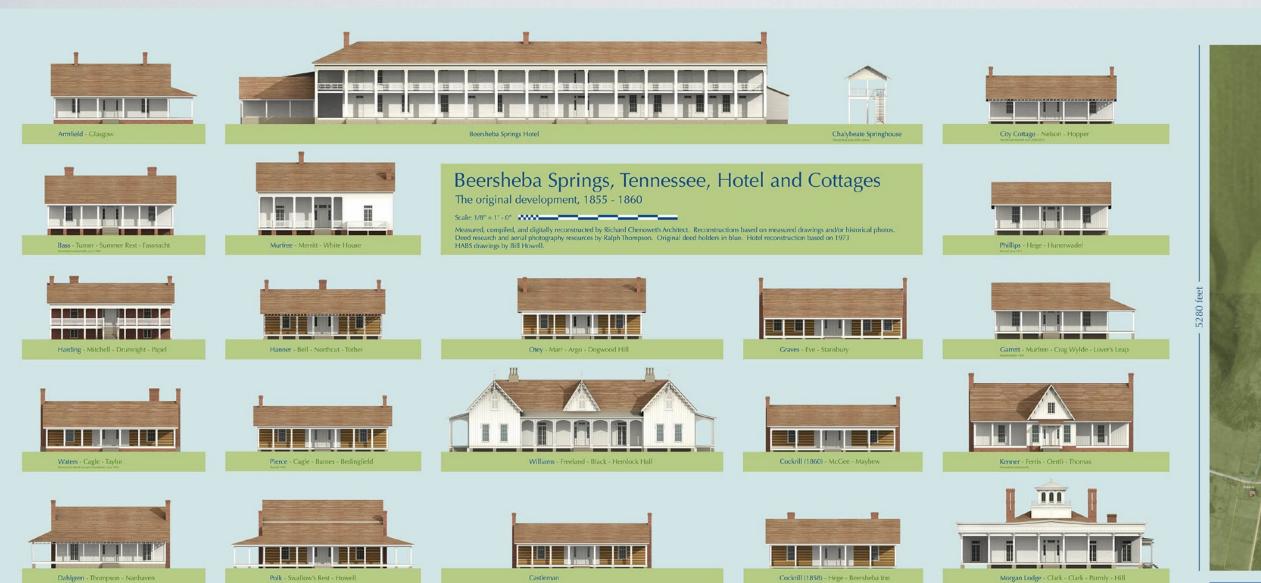


Storm over l'Étoile A rainy day in Chaville











Beersheba Springs TN

I received a grant from the local historical society to document an 1855-1860 Springs town on Tennessee's Cumberland Plateau. The 1855 development consisted of a hotel and twenty unique cottages based on classical, traditional, Victorian, and Creole influences. Many were measured in detail, and some that had burned were reconstructed based on historical resources. Several other buildings round out the group, such as a Springs House. I studied the historical roads as well. The town fell into ruin after 1865. There is evidence that some construction may have been accomplished by enslaved laborers. It's a complex story of vernacular housing types.



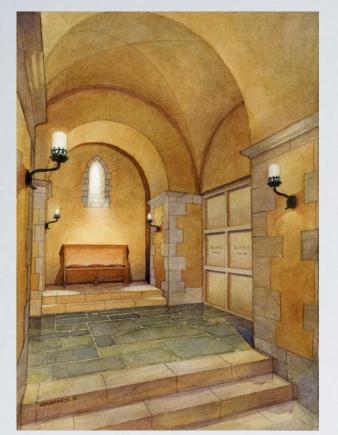




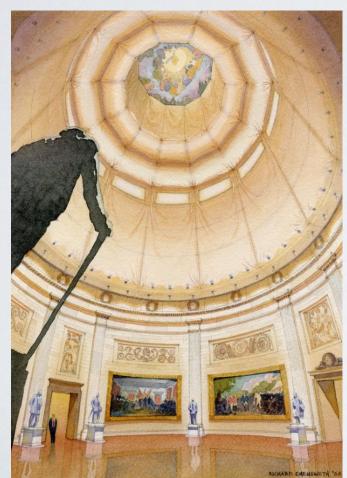




Plan studies of a sampling of the cottages



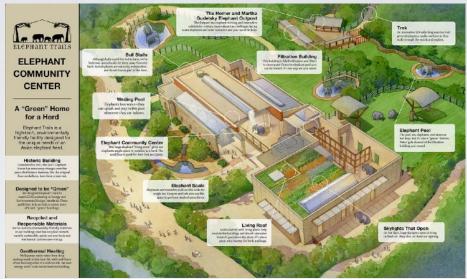
National Cathedral - Richard Williams Architects



Preservation of the Rotunda - Hoffmann and Arch. of the Capitol



Ice Park - Beyer Blinder Belle



Smithsonian National Zoo Elephant House - Vitetta Group



Johns Hopkins University Decker Quad



Preservation Magazine



National Law Enforcement Officers' Memorial - Davis Buckley



College of New Jersey - Hillier Group



Cottage Living Magazine, Southern Living Magazine (2004-2009)



Smithsonian American Art Museum - Hartman Cox



UAE proposal - Michael Graves Associates

Example of illustration work over the years.



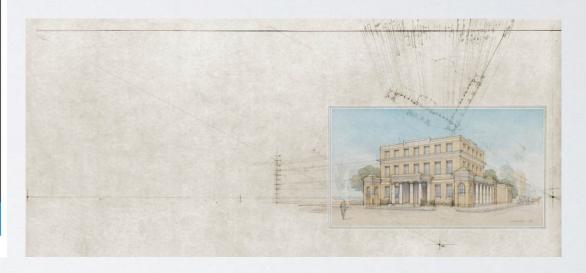
Metro Chooses Canopy Design For Entrances











Selected articles and press coverage

2001-07-13 Washington Post - B Section

Searched as Levy Probe Expands

2001 AIA-DC Magazine - Year in Review