

History of Architecture I

ARC 2313 - Spring 2022

Professor Richard Chenoweth AIA

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Office Hours 120B Howell: 11:00-12:00

Please schedule ahead of time

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Teaching Assistant: **Jake Herrington**

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Lecture outlines and images
will be posted here ::

www.chenarch.com

Course Description

- > **Analysis** of the concepts of the beginnings of architectural form, and **Survey** of early architectural history
- > Syllabus is published on Canvas.
- > Textbook: ***World Architecture: A Cross-Cultural History*** by Ingersoll & Kostof, Oxford University Press.
- > Attendance required either in person or on Webex. More regarding attendance is in Syllabus.

Expect to be challenged

The goals of this class are:

- > Understand and speak effectively about a general knowledge of the history of architecture within the profession and with the general public.
- > Understand and critically compare parallel, sequential, and divergent histories of world architecture.
- > Be able to identify key architectural ideas based on **form** (style and design) and **typology** (type or usage).

Expectations

- > Students are expected to attend every class prepared to listen, take notes and discuss the history of world architecture
- > Required readings must be completed prior to each class
- > It is your responsibility to understand the material. Be prepared to take the initiative to understand new ideas and vocabulary through outside reading
- > Written assignments will be fact-based and relevant to the topic

Attendance

- > Class begins promptly at 10:00 and ends at 10:50
- > Late-comers will be considered “absent”
- > Class disruptions such as cell phones will result in an “absence”
- > Cell phones OFF - No texting - Put phones away. Notes to be taken by hand preferably. If the use of cell phones becomes too annoying, users will be asked to present the next slide.

For Friday 21 January:

Ingersoll :: 2-32 and 61-65

@ @ @

Why Architectural History?

- ¶ **Importance** of reading and examining drawings
- ¶ **Importance** of understanding the *big ideas* behind the built environment
- ¶ **Importance** of being able to discuss with both professional and general audiences

- ¶ **Importance** of knowing what came before you
- ¶ **Importance** as a design resource, which we will discuss today

- ¶ You can always find the answers in books
- ¶ You only need to know which books to open

*Three major categories by which
Architectural History is expressed:*

¶ *Literal Translation*

- literal copy - “*slavish copyism*”
- preservation to specific historical date

¶ *Formal Interpretation*

- forms and arrangements from the past
- the program and materials can change

¶ *Inspirational Influence*

- inspiration from the poetics of space
- spirit of the age - *zeitgeist*

#1 — Literal Translations of History



Nashville's Parthenon

Literal Reproduction ~ Nashville wanted to *literally* recreate itself as the *Athens of the South* for the 1896 World's Exposition - so they recreated an exact copy of the Parthenon as the centerpiece



Literal Reconstruction ~ Based on archeological evidence yet completely modern version of the first settlement at Jamestowne VA



Peacock Room by James Whistler

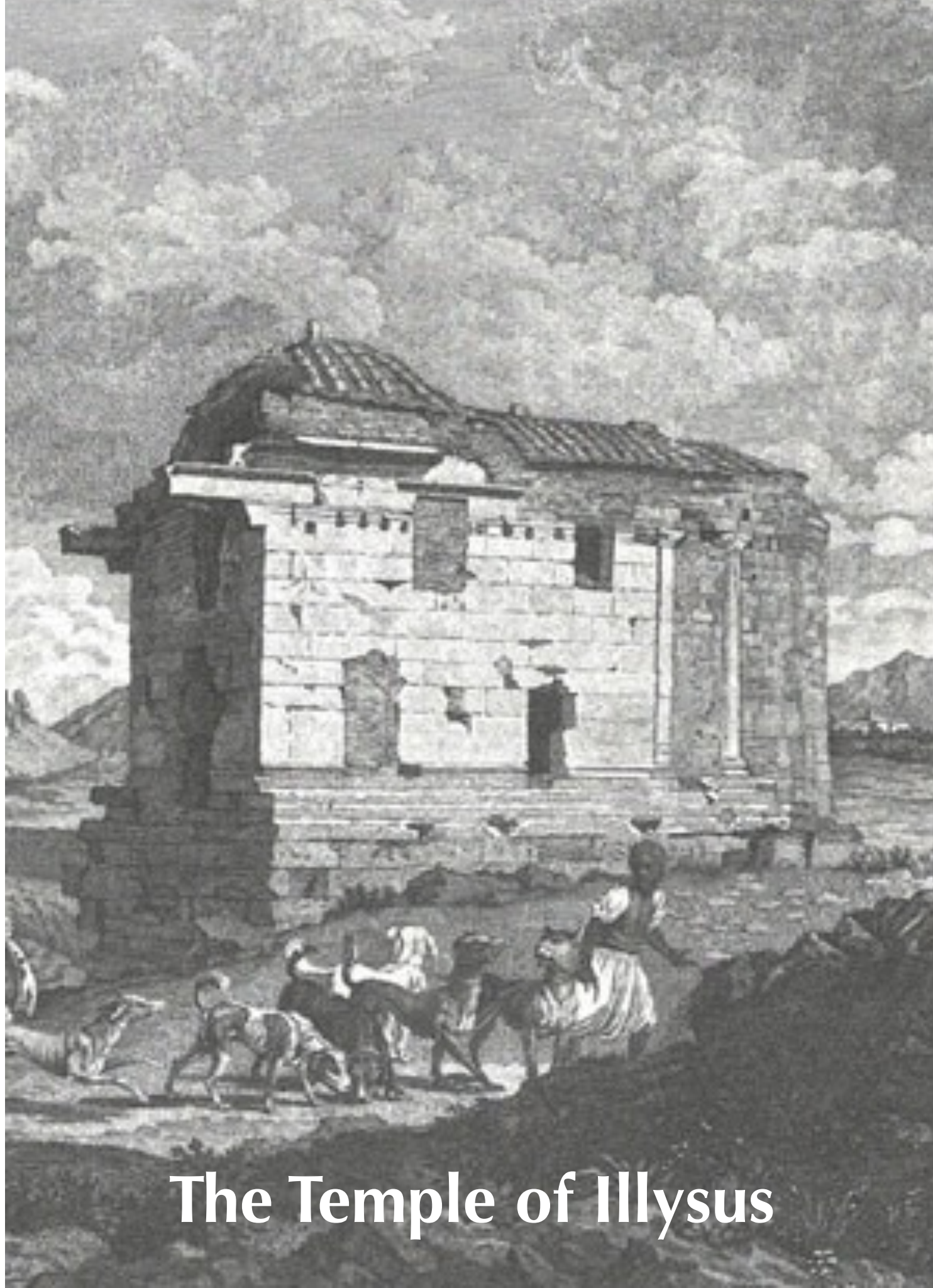
Literal Preservation ~ This room from an English Country House was designed and painted by James Whistler. The entire room was preserved by shipping it to the Smithsonian



Philadelphia's PAFA by Frank Furness

Literal Preservation ~ A building preserved in its original location

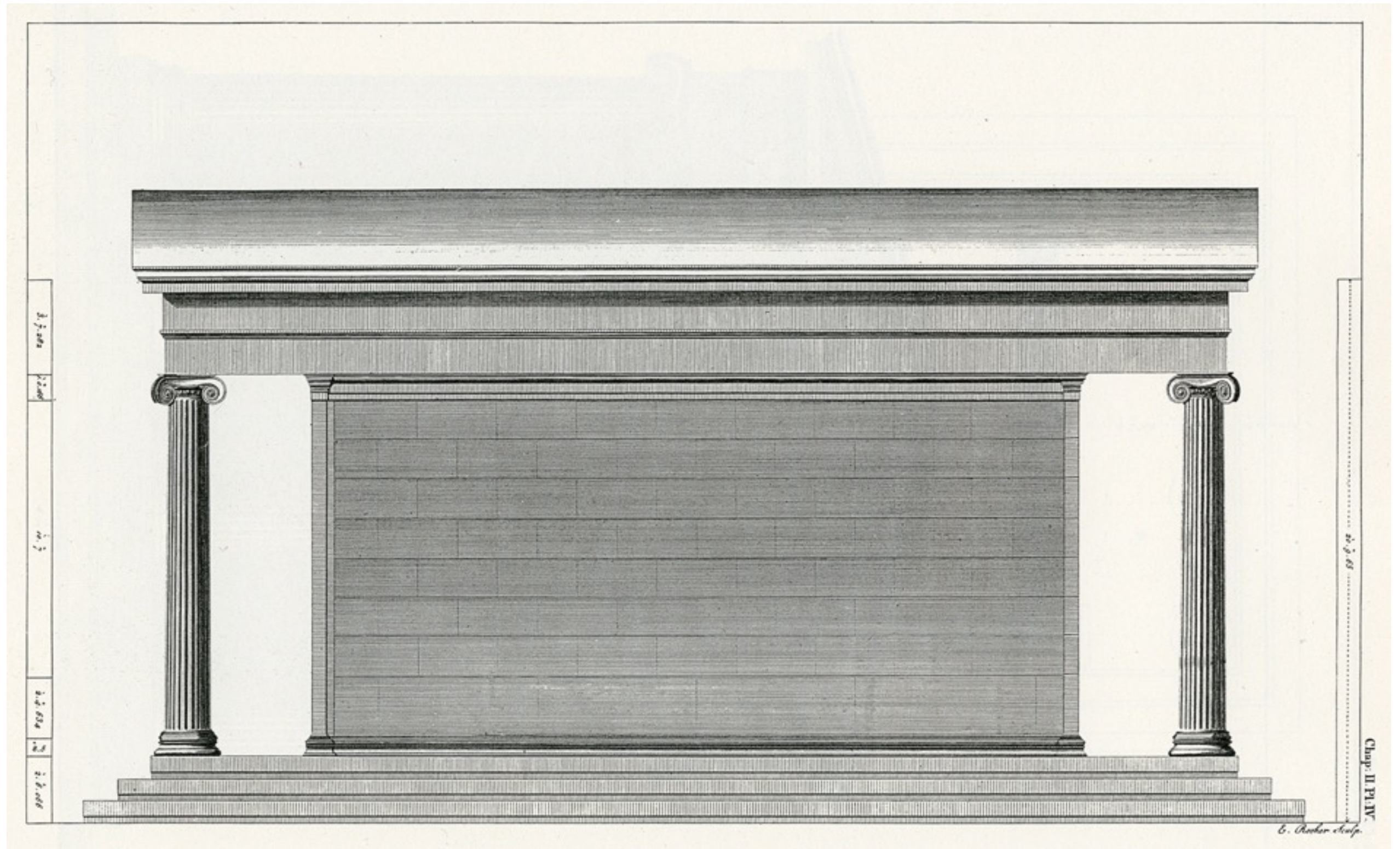
#2 — Formal Interpretations of History



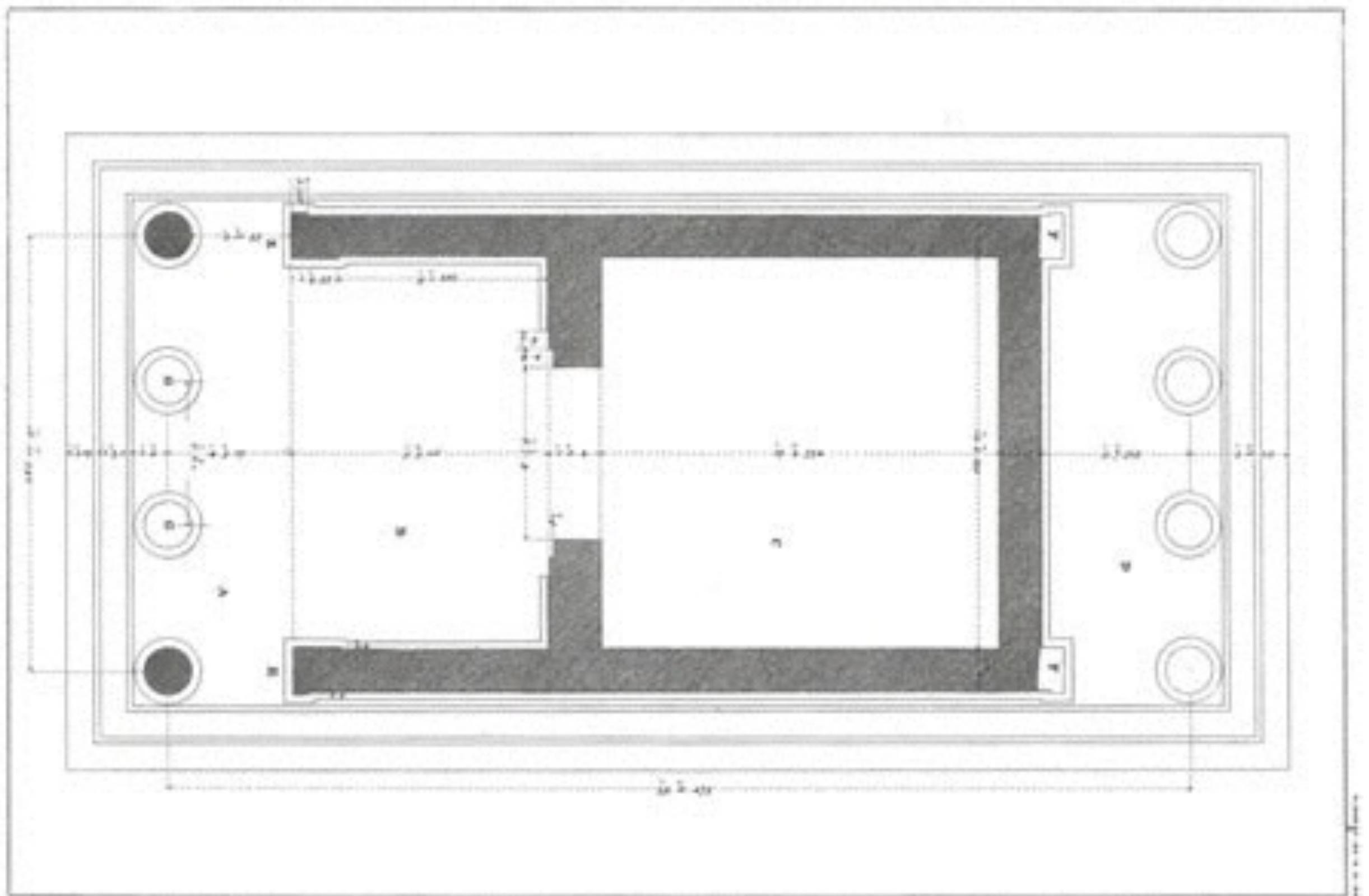
from
Stuart & Revett
(1754)

At the time that Stuart & Revett documented the temple it was more than 2000 years old and had been abused and greatly altered.

The Temple of Illysus



The Temple of Illysius near the Acropolis
(this is the reconstruction drawing by Stuart & Revett)



The plan of the Temple of Illysus



How an architect *adapted the form* of the temple into a small country house

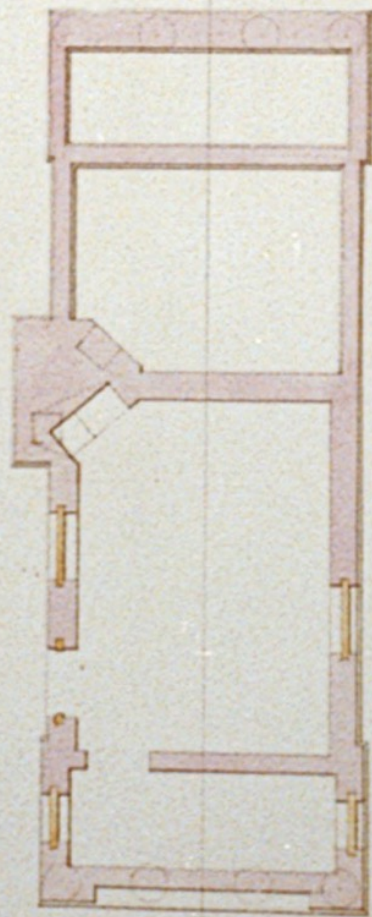


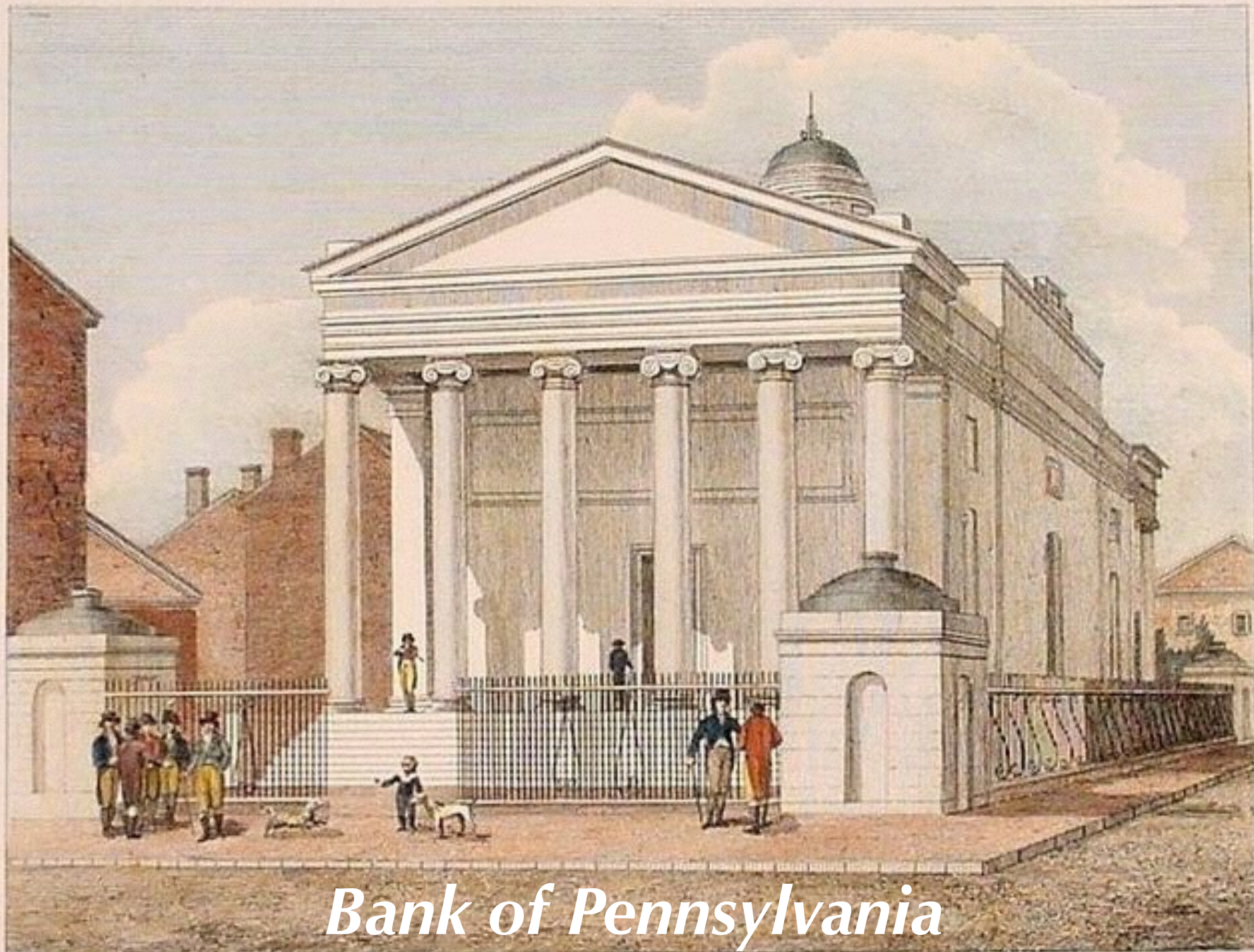
Formal Interpretation ~

B. Henry Latrobe designed a small house in the country in 1800, which borrowed the form of the ***Temple of Illysus*** near Athens (430 BCE)

Latrobe gave the forms a new program, a new purpose.

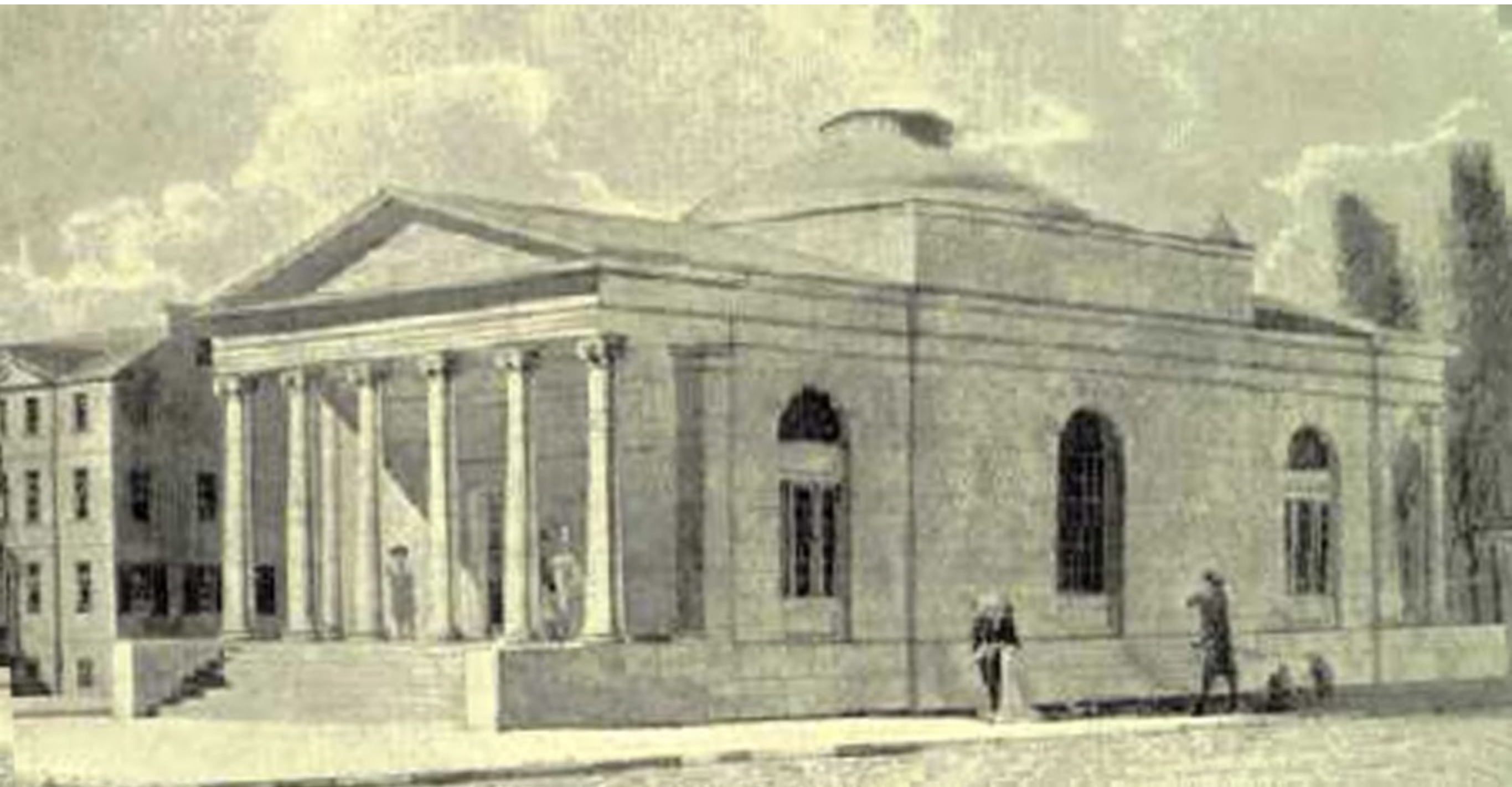
In part, by adding windows and a fireplace making it domestically useful.





Bank of Pennsylvania

BANK OF PENNSYLVANIA, South Second Street PHILADELPHIA.



The Bank of Pennsylvania also is based on the Temple of Illysus but has large round-topped Roman windows added to it as well as a dome



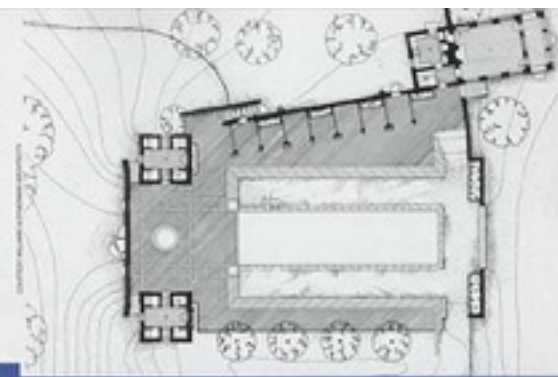
The *Villa Lante* near Rome (1566)

two cubic pavilions / strong axis / symmetry / water element



OPPOSITE: "Sited on the crest of a knoll, the temple-front dining pavilion serves as gatehouse for the farm," says architect Richard Williams, describing the first view of the Virginia pool complex he designed with interior designer José Solís Betancourt and landscape architect Richard C. Burck. "It's intended to evoke agricultural building forms."

RIGHT: The site plan "conveys relationships that no photograph can," says Williams. BELOW: Made of fieldstone, handmade brick and Ohio sandstone, the changing pavilions and stairs flanking the pool create a formal symmetry that continues with the columned pergola at right.



A NEOCLASSICAL POOL COMPLEX

BALANCING NATURE AND DESIGN IN THE VIRGINIA COUNTRYSIDE

ARCHITECTURE BY WILLIAMS & DYNERMAN
INTERIOR ARCHITECTURE BY JOSÉ SOLÍS BETANCOURT
LANDSCAPE ARCHITECTURE BY RICHARD BURCK
OF BURCK RYAN ASSOCIATES
TEXT BY PILAR VILADAS
PHOTOGRAPHY BY RON BLUNT



A *Farm* in Virginia (1995)

How an architect reinterpreted the forms of the Villa Lante:

Formal Interpretation ~ the forms and the formal arrangement are analogous to Villa Lante—yet they have been altered in their their **scale, materiality, regional spirit, and construction methods**





Greek Theater of Epidauros (400 BC)

Capacity 14,000 / excellent circulation / perfect acoustics

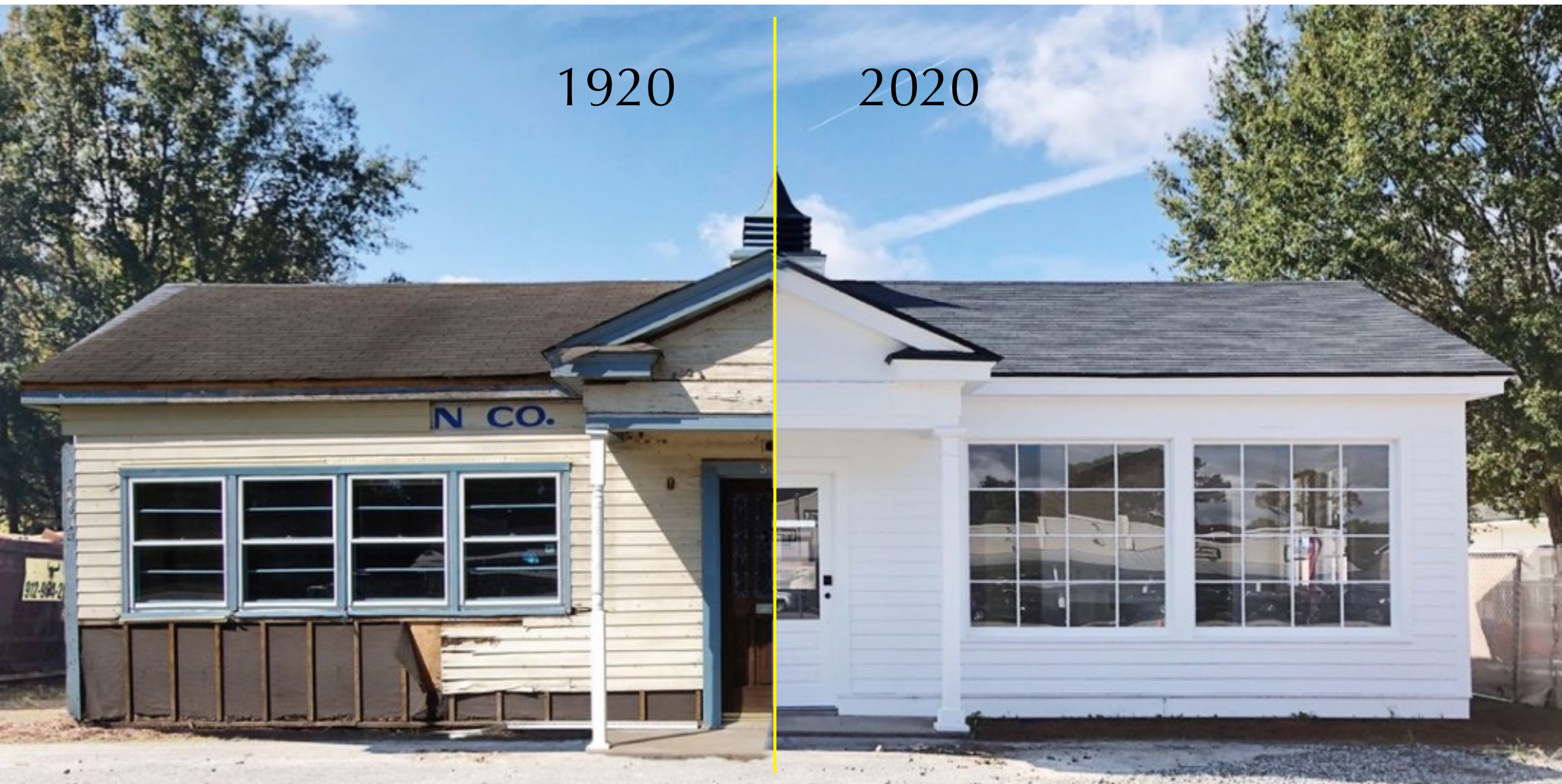


Globe Life Park in Arlington TX (2020)

Capacity 40,000 / excellent circulation / gigantic scoreboard

What can we learn from the past
by analyzing the formal qualities
of these examples?

The *forms* and *arrangements* have
been reinterpreted for a new time
and place. In some cases, even
the *use* of the building is similar.



Refurbishing a historic structure

#3—Inspirational Influence

My own story about using history as
Inspirational Influence



Metro Competition 2001
~ my partner and I entered this competition ~

The Problem

(architectural design is always subject to a problem that must be solved)

The Inspiration

~ initial ideas that occurred to me were based in history
and happened to be things that I liked ~



Industrial Architecture

Also known as
the ***Machine Age
Aesthetic***
(early 20th c.)



Bird in Space

Constantine Brancusi (1928)

Cross-disciplinary knowledge
of art history



expression of industrial joinery



logic and clarity of good detailing



Infrastructure projects

I. K. Brunel

iconic transportation buildings



Eero Saarinen's Dulles Airport

iconic transportation buildings



Eero Saarinen's Dulles Airport



Metro Canopy in Paris c. 1900
~ an *iconic* work by Hector Guimard ~



Bronze and glass canopies a part of Paris metro system (1900)



The concrete vaults of the existing DC Metro system
Harry Weese & Associates

These were *inspirational*.

I *knew* of all these examples and
I was *inspired* by the strength of the
forms and what they connoted.

But most specifically, I was thinking
about these two works and creating
a *spirited form* for our own age:



Lincoln's Inn Fields, London

John Soane's
Breakfast Room Ceiling

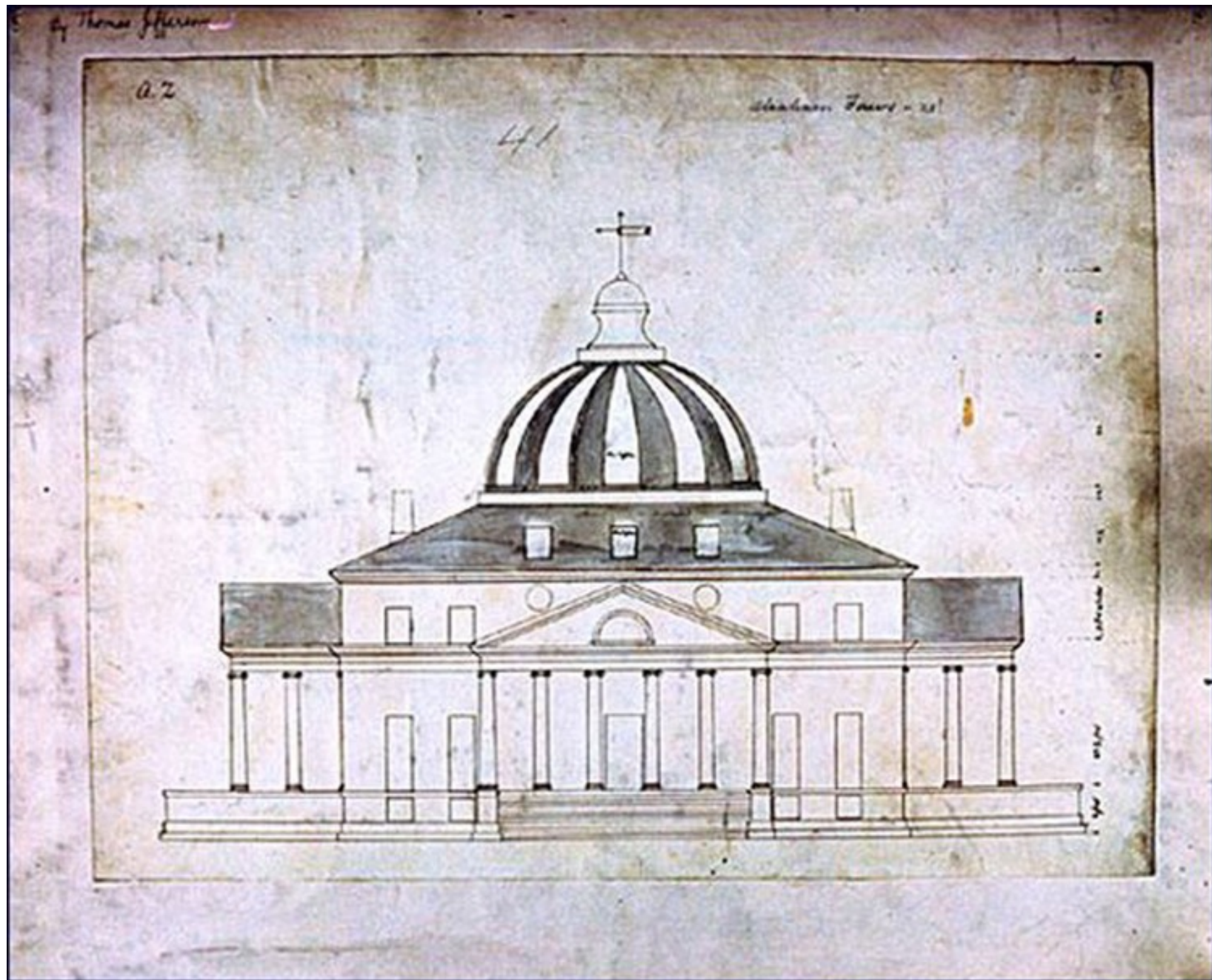
This form is called a
sail vault



The *Paris Grain Market* in 1786

Thomas Jefferson was obsessed with the brilliant light of glass roofs because he had seen one in Paris at the grain market

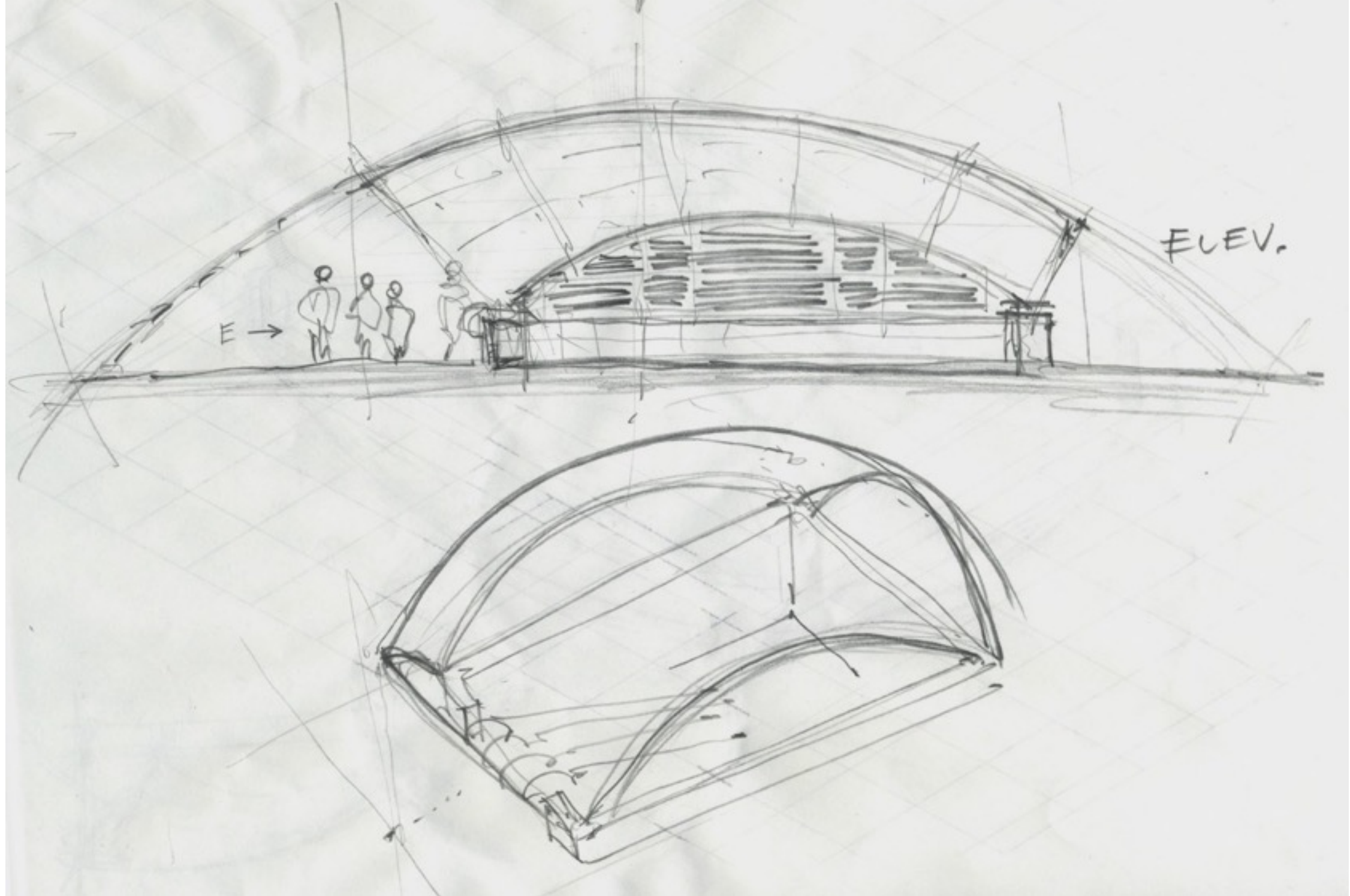
He called it: "The most superb thing on earth..."



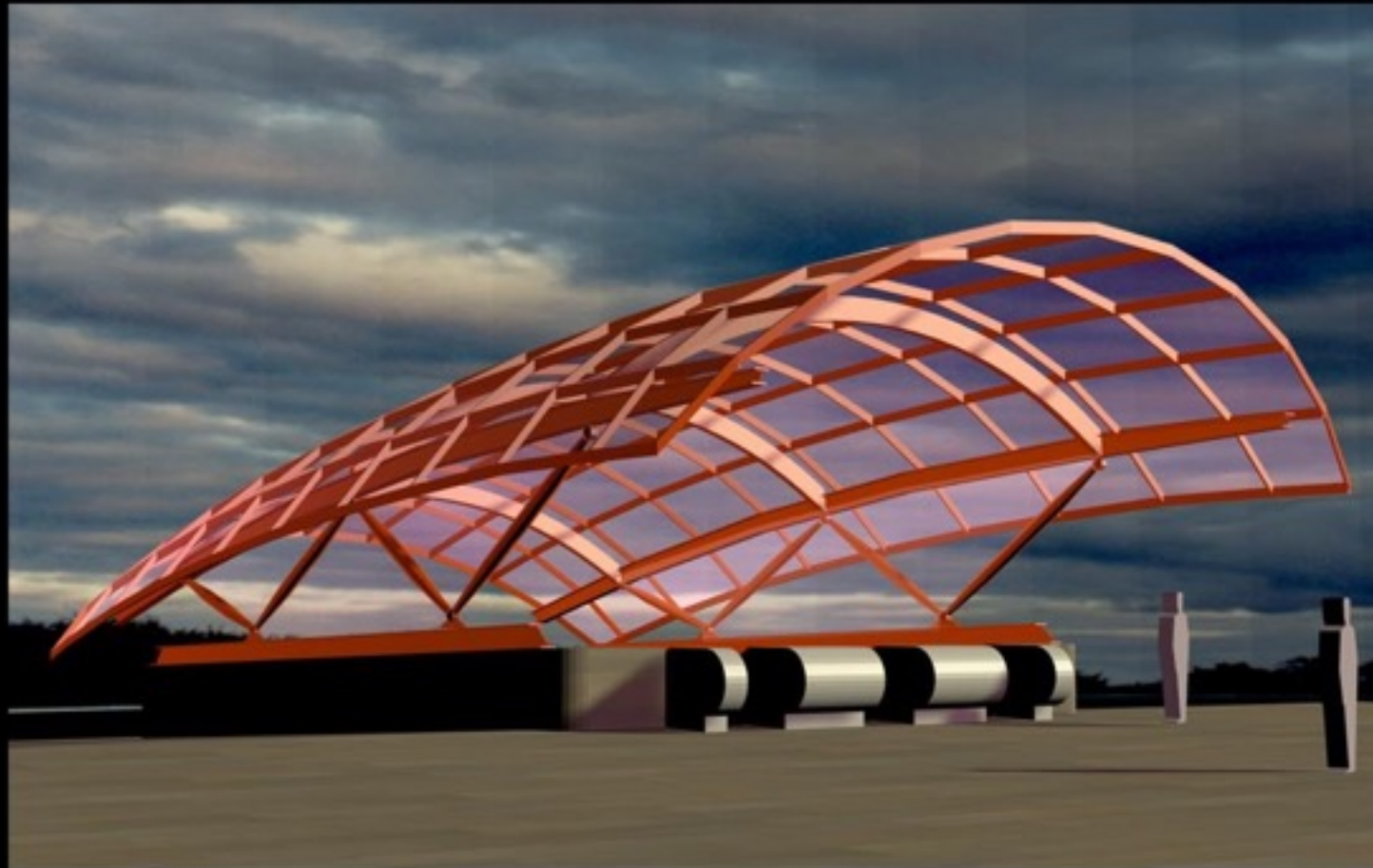
He anonymously submitted a design for the competition to build the White House and it included a glass roof

The Solution

To the Metro Canopy Competition



My first sketch was a ***glass sail vault***



The Metro canopy, a cambered vault supported by trusses, is evocative of both the industrial technology of traditional transportation systems as well as the Washington area's strength in high technology.

Upon arriving, the translucent canopy is invitingly colorful and light. Departing from the Metro, the canopy reveals expansive sky. At night, the canopy is a beacon of light for way-finding.

Suggestive of the concrete vaulting below, the canopy will become a significant icon among Washington's powerful transportation symbols.

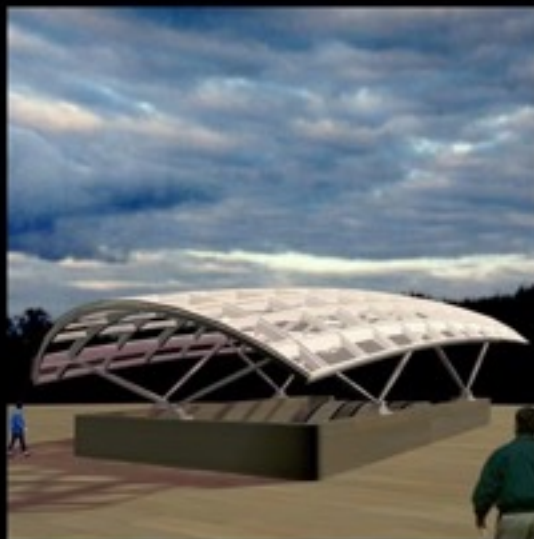
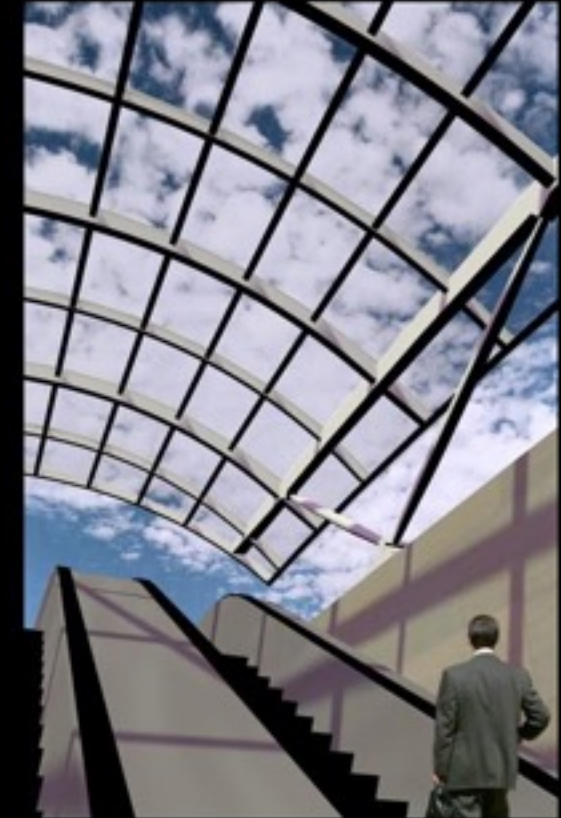
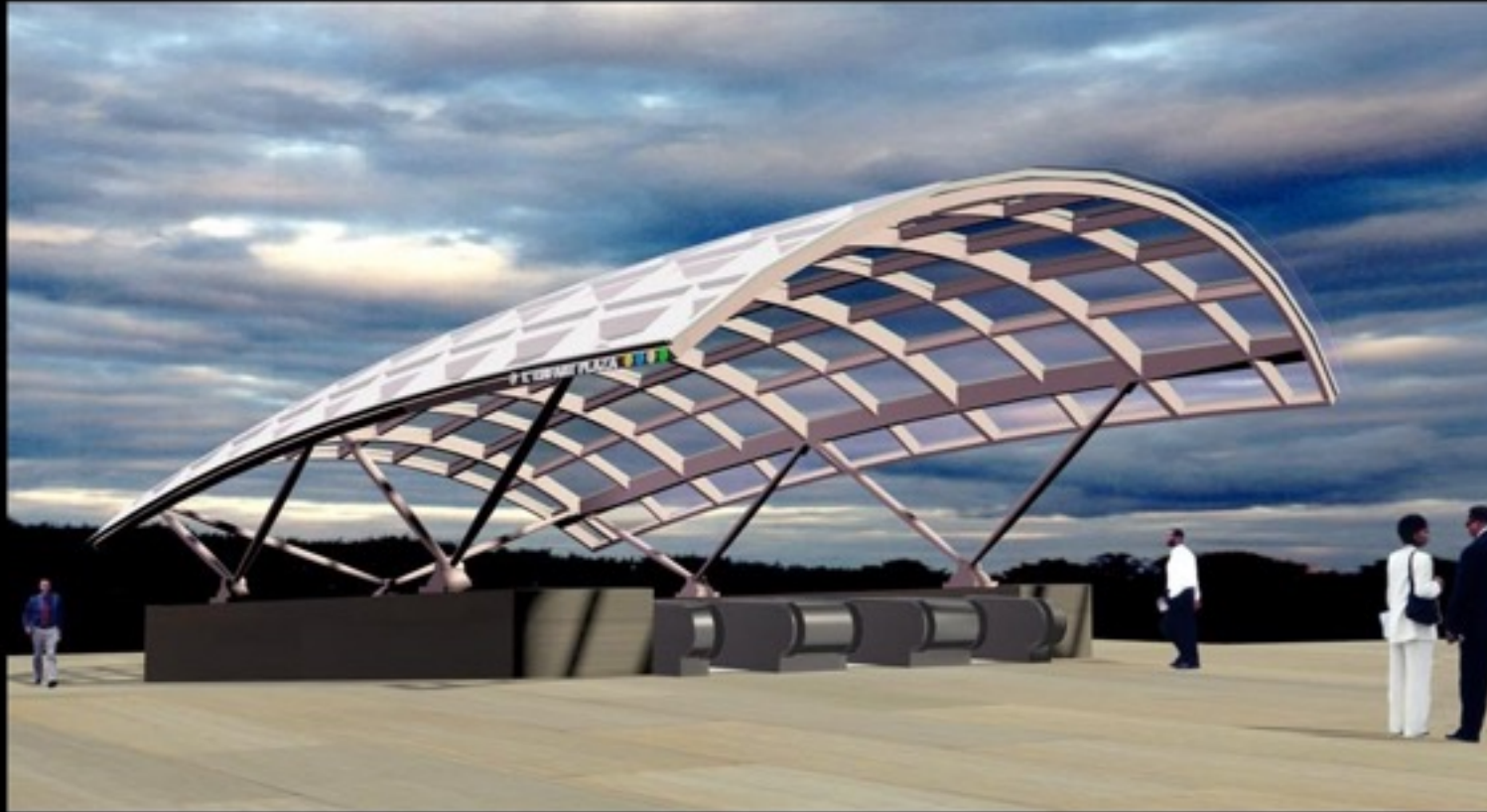
- Construction is modular and prefabricated
- Canopy installed on site with minimum disturbance
- Canopy has minimum 13 feet of horizontal clearance
- Tempered, laminated safety glazing is modular
- Length and width of roof grid can vary by location
- Future security buildable below overhang beams
- Escalators and hatch protected from weather
- Access and clearance to escalators
- Protection provided from windblown precipitation
- Durable metal finish can be color-coded to Metro lines
- Signage and lighting easily adapted to structure



WMATA METRO CANOPY DESIGN COMPETITION

2001

Stage One of the Competition



The Metro canopy, a cambered vault supported by trusses, is evocative of both the industrial technology of traditional transportation systems and the Washington area's strength in high technology.

On a fundamental level, the Metro canopy is an expression of pure structure — an idea that has demonstrated timelessness in the traditions of architectural and engineering history.

For those arriving at the Metro, the translucent canopy is invitingly airy and light. For those departing from the Metro, the canopy reveals expansive sky. At night, the canopy is a beacon of light, a place of orientation within the urban and suburban landscapes.

Suggestive of the concrete vaulting below, the Metro canopy will become a significant icon among Washington's powerful transportation symbols.

WMATA METRO CANOPY DESIGN COMPETITION

2001

Stage Two of the Competition



FOUR PILOT CANOPIES
PILOT ESCALATOR CANOPY PROGRAM, WASHINGTON, DC
LOURIE & CHENOWETH ARCHITECTS, LLC

Owner: Washington Metropolitan Area Transit Authority

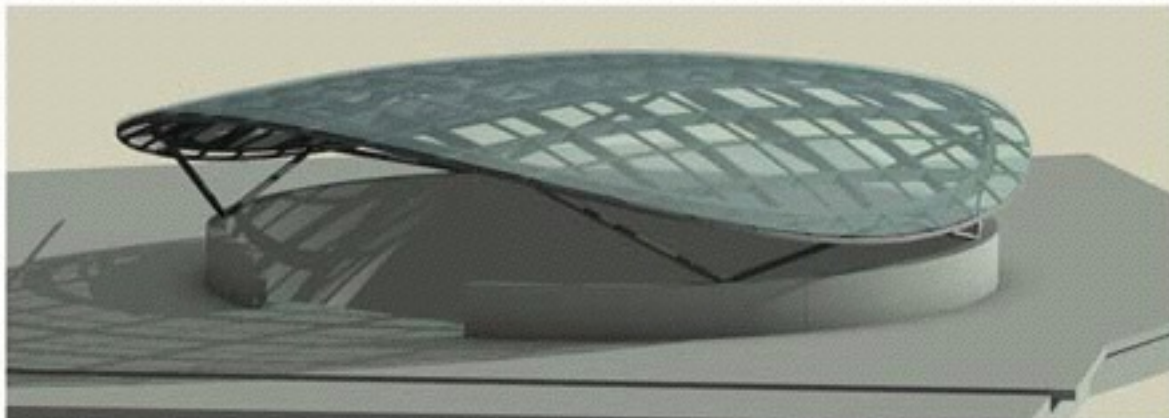
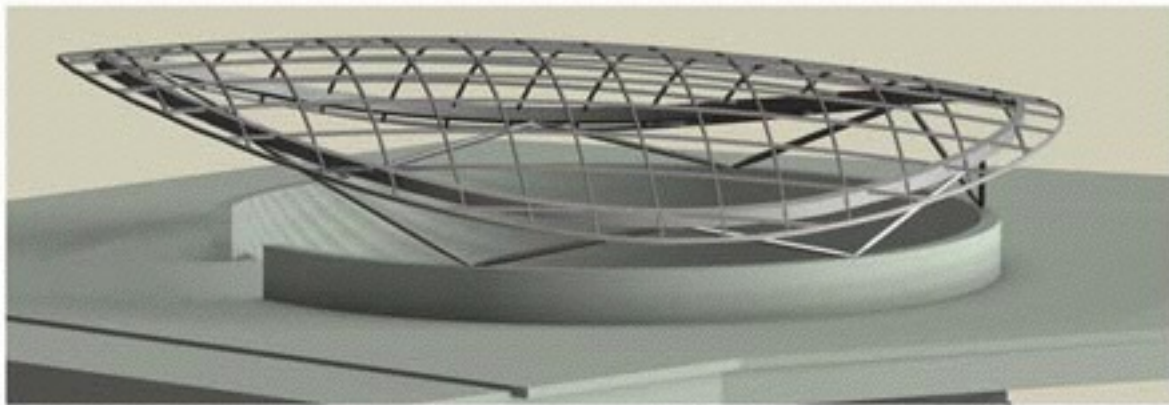
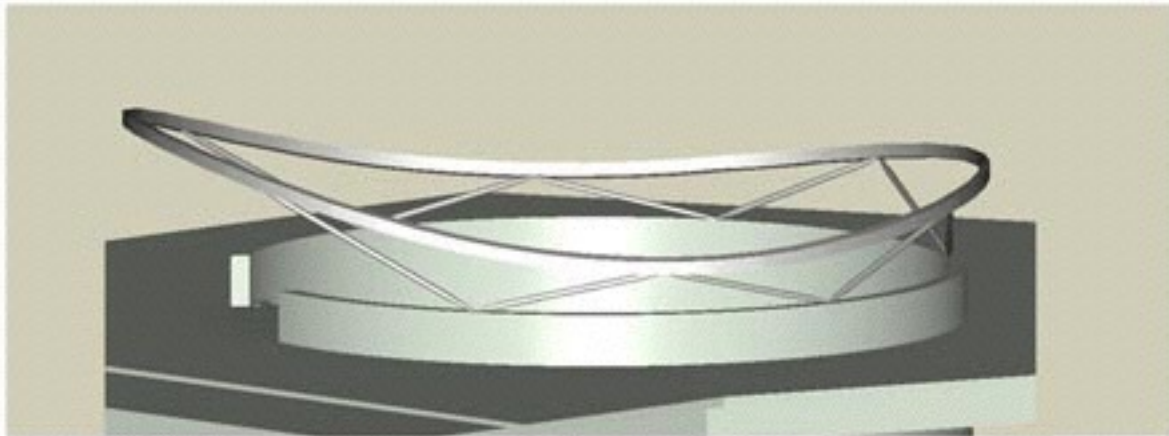
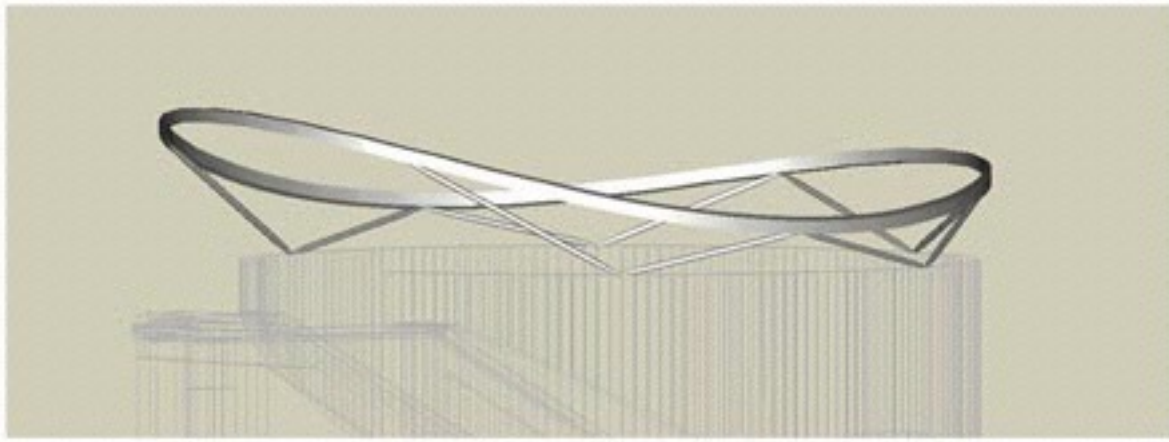
Contractor: Grunley-Walsh Joint Venture



Our design won ***first place*** in the international competition



*The biggest canopy is at Dupont Circle in Washington DC.
It will be a glass dome 90 feet in diameter*



The underlying geometry

50 canopies have been built to date
around Washington...

But have they become *iconic*?



Museums



Crowds



Part of the city



A place to wait and relax

Computer image of what the canopy will look like
on the National Mall in Washington DC



Computer image of what the canopy will look like
on the National Mall in Washington DC





Heck yeah - it even appeared in a computer game!
(Division 2 by Tom Clancy)

To reiterate:

¶ *Literal Translation*

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I offer this last story as a way of illustrating that
*knowledge and understanding of
history of the built environment*
is a powerful tool for the architect

*understand your history ~
it's worth it!*



end