

MAKING OF ARCHITECTURE

An Educator's Guide

The Kreeger Museum

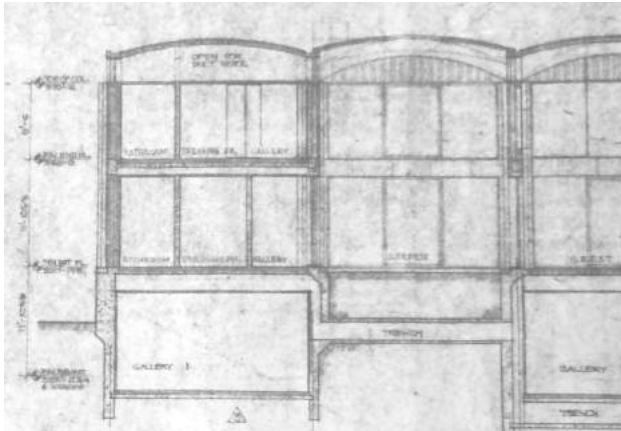


Welcome to The Kreeger Museum!

Opened in 1994 in Northwest Washington, D.C., The Kreeger Museum is committed to enhancing the understanding and appreciation of art, architecture, and music for all its visitors.

The collection, housed in a building designed by architect Phillip Johnson, features works by Pablo Picasso, Claude Monet, Auguste Rodin, Henry Moore, and members of the Washington Color School, among many others. The Museum is open to the public Tuesday-Saturday, 10AM-4PM.

The Museum also offers a range of educational programs, each focused on a different aspect of the Museum and its collection. Each includes a tour and a hands-on activity led by a teaching artist.



What is *Making of Architecture*?

Making of Architecture is a two-part educational program which features a tour of the Museum and a hands-on workshop. The tour focuses on the design and construction of the building, with special attention given to how Philip Johnson created a unique architectural space. The workshop, staged in the Museum's Great Hall, invites students to design a 3-D model for an addition to the Museum using the principles introduced in the tour.

This program is open to all public and private school groups from Washington, D.C., Maryland, and Virginia. It is designed for a range of grade levels, and will be scaled up or down according to grade level. (Left: Original architectural drawings (detail), 1965)

About this Educators' Guide:

This resource provides visiting educators with an introduction to *Making of Architecture*. In the following pages, you'll find a sections on the history of the building and the building today, as well as details on the tour and workshop, and vocabulary. On the final pages, you'll find connections to local and national educational standards, as well as logistical considerations for the visit. Need more information? Please feel free to reach out; education@kreegermuseum.org. (Right: The Kreeger Museum, Detail, 2012)



A B R I E F H I S T O R Y O F T H E B U I L D I N G

Below you'll find a timeline that outlines the construction of The Kreeger Museum and profiles of the three parties - the architect, the builder, and the clients - who collaborated on this massive undertaking. Each party was responsible in its own way for the creation of this historic building.

Feb 1963:
Kreegers buy a 5.5 acre plot on Foxhall Road

Jan 1964: Contract signed and first drawings sent to clients. Johnson travels to DC to visit clients with model of building.

March 1965:
Demolition and excavation complete; construction begins.

October 1966: Travertine is installed and exterior completed. Interior work, including flooring, progressing.

July 1963: Kreegers meet Johnson at Corcoran Gallery. He agrees to project conditionally, saying: "I won't build you a house but I will build you a museum."

Dec 1964: Fuller Construction Company is hired. Work begins in two months with demolition of existing home on site.

March 1966: Concrete substructure finished. Travertine arrives from Italy a month later in crates, stored in pool area.

May 1967: Building ready for occupancy. Kreegers move in three months later.

Architects

Philip Johnson & Richard Foster

By the time he accepted the commission for The Kreeger Museum, Philip Johnson (b. 1906) was well established as an architect through his work with mentor Mies van der Rohe and projects like The Glass House (New Canaan, CT) and The Seagram Building (New York, NY). Johnson received the prestigious Pritzker Architecture Prize in 1974. Richard Foster (b. 1919), who joined Johnson in 1950 as an associate and collaborated on many famous projects, led a distinguished career of his own.

Builder

George Fuller Company

Founded in 1882 by George A. Fuller, the self-proclaimed "father of modern skyscrapers," this New York-based construction company is responsible for projects like Penn Station and the Flatiron Building in NYC. Contracted in 1964 by Johnson and Associates, the company worked on the Kreeger Museum in conjunction with stone masons, contractors, structural engineers, carpenters, and specialized craftspeople.

Clients

Carmen & David Kreeger

Carmen and David met in Puerto Rico in 1935 and married in 1938. David was a lawyer, business person, amateur musician, and art patron who played an important role in founding GEICO Insurance. The pair began amassing their art collection in 1954 and continued collecting until they outgrew their Fessenden Street home. Carmen was especially instrumental in shaping the building that would become the Museum, suggesting architectural attributes like the salon, sculpture terrace, and swimming pool (now reflecting pool.) The pair lived in the Museum with their "living collection" until 1991, hosting concerts and sharing their art.

THE BUILDING TODAY

The building has changed very little since its completion in 1967: visitors today experience the spaces as they were envisioned by Johnson and Foster more than 50 years ago. As Johnson's work has become more widely known in the decades that followed the building's completion, the Kreeger Museum is now regarded as a fine example of Johnson's eclectic style and unique vision. Associated with the International Style and Mid-Century Modernism (see vocabulary), the building continues to be recognized as a unique architectural achievement and holds a special place in the history of 20th Century American architecture.



Atrium



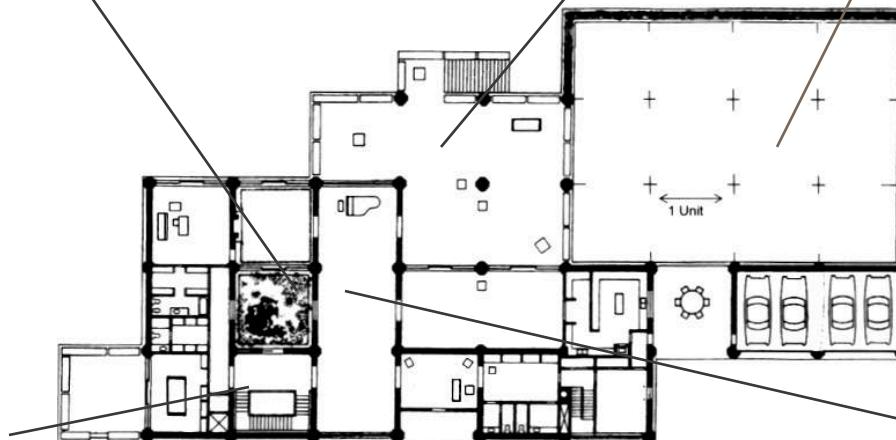
Sculpture Terrace



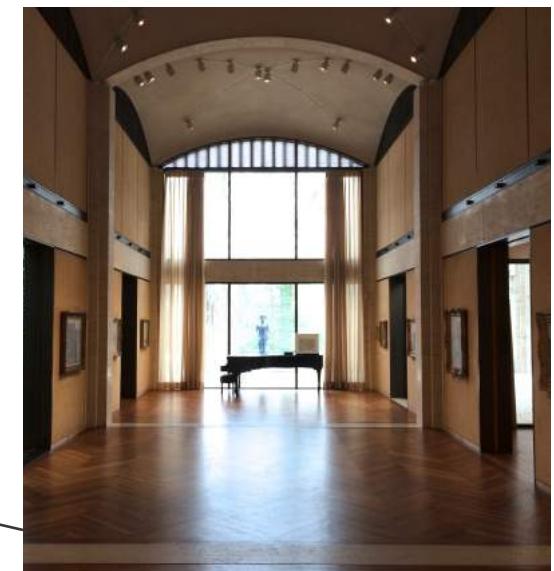
Reflecting Pool (Formerly Swimming Pool)



Stairwell Gallery



From Above: a "bird's eye view" of the main floor.
Also called a "floor plan."



Great Hall



About the Tour

The tour for *Making of Architecture* is led by a Kreeger Museum docent or staff member and covers both the interior and exterior spaces of the Museum. The content of each tour is unique but generally invites students to consider a two-part question: What was architect Philip Johnson trying to achieve with his design? Did he achieve it?

It is through this lens that students are introduced to the basics of architecture, vocabulary, and principles for evaluating buildings and their design. The tour is interactive, fostering each student's confidence and encouraging the development of a critical eye.

The tour will be modified appropriately for grade level. For detailed resources on Johnson, the building, principles for evaluating architecture, and other content related to this program please contact education@kreegermuseum.org.

About the Workshop

The hands-on workshop is led by a teaching artist and begins with students gathering with the artist in the Great Hall. Using the vocabulary and principles introduced in the tour, the teaching artist orients the students for the activity, reinforcing and expanding content from the tour.

Students break into groups of 4 to 6 and each group is assigned to a table. Each table is outfitted with materials for designing and building an architectural model.

Following the teaching artist's instructions, the student groups are "commissioned" to build a new wing for The Kreeger Museum. Working independently within their group, each student decides on a creative concept and creates a 2-D plan on graph paper, focusing on aesthetic and practical considerations for their addition.

The group decides on one of these designs to build and, using the materials on hand, creates a 3-D model based on the design, observing scale, architectural methodology, and principles for evaluating architecture.

Students stop their work approximately ten minutes before the workshop's conclusion and, under the leadership of the teaching artist, go from model to model. Each group picks a representative to speak on behalf of their "new addition" during the peer review.



VOCABULARY

Architecture: The art and science of creating structures and designing spaces based upon the principles of necessity and aesthetics. Form and function in building.

Architect: The individual who visualizes and designs the building or the space. Usually two or more architects are responsible for the conception of a building.

Architectural Renderings/Plans: The drawings and instructions the architect creates to communicate their ideas to builders and clients. These drawings are now typically made digitally using software programs like AutoCAD. Before the widespread use of computers, the plans were called blueprints or blue line drawings, and were printed on paper.

Builder: The individual who physically builds the structure. Builders work closely with architects, engineers, and more specialized craftspeople (e.g. stone masons and plumbers) to construct the building according to the architectural drawings.

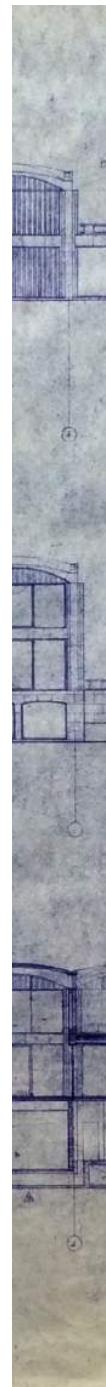
Client: The individual who the building is being built for; the funders.

International Style: An eclectic architectural style developed in Europe and the US in the 1920's and '30s characterized by rectangular forms, large panes of glass, open interior spaces, and no ornamentation. The term was coined in a 1932 essay by Philip Johnson and Henry Russell-Hitchcock.

Classicism: An architectural style which uses architectural innovations and preferences of ancient Greek and Roman cultures.

Modernism: An architectural style which emphasizes newness, the possibility of contemporary materials, and the aesthetics of a post-industrialized world.

Module: Basic unit which can be configured in various ways in the design of the building. The module Johnson used for The Kreeger Museum is 22 feet x 22 feet



Dome: A roof that rises from a base, which can be circular or rectangular, and creates an open, rounded 3-D vault. Domes come in many different shapes and sizes. Famous domes include the Pantheon (Rome), US Capitol (Washington, D.C.), and the Taj Mahal (India).

Sail Dome: A particular type of dome which springs from a rectangular base and resembles a sail full of wind

Atrium: A centrally located patio or open space in a building; atriums provide light to the interior spaces of a bigger building and integrate the interior with the exterior.

Travertine: A type of limestone. Most travertine has a warm, off-white color, broken by small air pockets and seams of harder stone

Anodized Aluminum: Aluminum is a white-silver metal prized for its malleability, flexibility, and strength. To "anodize" aluminum is to treat the metal with a chemical process which makes it stronger and more durable.

Teak: A tropical hardwood prized for its beauty.

Reinforced Concrete: Concrete, which is sand, water, and cement, that is strengthened by adding steel. Reinforced concrete meant people could build higher, larger, and stronger buildings.

Lunette: An architectural element in the shape of a crescent. The term gets its name from "lune" or "moon" in the Romance languages

Mashrabiya: Lattice screen of wood or a wooden grill used to cover windows or balconies. An element of traditional Arabic architecture

Scale: The proportion of one thing to another. In architecture, it often refers to the size of the architectural element or building relative to the human body.

Sources: Oxford Dictionary of Architecture, Curi (1999), Why Buildings Stand Up, Salvadori (1980), The Grammar of Architecture, Cole (2002), Traditional Houses in Baghdad, Warren and Fethi (1982)

Museum Expectations

We request that schools observe a ratio of one teacher/chaperone for every eight students.

We request that students observe three rules while in the Museum:

1. Do not touch the artwork.
2. Move slowly
3. Keep voices down

We review these rules at the beginning of each visit.

In addition to these rules, we ask students to observe general classroom etiquette. (e.g. avoid talking over classmates, remember to raise your hand, no chewing gum).

We depend on visiting teachers and chaperones to help enforce these rules.

Preparing for Your Visit

The entire *Making of Architecture* experience lasts approximately 90 minutes.

We reserve a spot for your bus with orange cones in our parking lot. Please enter through the gate marked "Service Entrance." Most bus drivers choose to back into the parking lot from Foxhall Road.

Visiting students and teachers should come to the front door of the Museum at the head of the cobblestone circle. We'll be waiting to greet you.

If you have questions or concerns, or need more information, don't hesitate to reach out: education@kreegermuseum.org or (202)337-3050 ext. 324

Right: Thomas Downing,
Universal Joint, 1949-57



Connecting to Standards

The Kreeger Museum's Education Department seeks to provide exceptional, engaging programming that emphasizes authentic, substantial connections to art, language, and the creative process. To this end, we are committed to ensuring that our partners and visiting teachers can make connections to the curriculum we offer. Please find some suggested links to local and national educational standards listed below.

Grade	Common Core State Standard for ELA	Common Core Standards for Mathematics	National Core Arts Standards	DCPSArts
3	Speaking and Listening (3.SL)	Measurement and Data (3.MD)	Responding and Creating	Building
4	Speaking and Listening (4.SL)	Measurement and Data (4.MD)	Responding and Creating	Building
5	Speaking and Listening (5.SL)	Measurement and Data (5.MD)	Responding and Creating	Building
6	Speaking and Listening (6.SL)	Geometry (6.G)	Responding and Creating	Structure
7	Speaking and Listening (7.SL)	Geometry (7.G)	Responding and Creating	Structure
8	Speaking and Listening (8.SL)	Geometry (8.G)	Responding and Creating	Structure
9/10	Speaking and Listening (9-10.SL)	N/A	Responding and Creating	Determination
11/12	Speaking and Listening (9-10.SL)	N/A	Responding and Creating	Determination

Special Accommodations

We offer discounts for Title I DCPS schools.

The capacity for *Making of Architecture* is 30 students/trip. If you have a larger group, please contact the Museum to discuss alternatives.