

THE ART INSTITUTE OF CHICAGO

Chicago (USA)
2000-2009

Author: L. Piano, 2012

The Art Institute of Chicago, which was inaugurated in 1893, is one of the largest art museums in the United States, second only to the Metropolitan Museum in New York.

In 1999, the museum administration decided to carry out a significant expansion, with the creation of a structure that would be known as the Modern Wing. The goal was to increase the exhibition space by 30% and the educational areas by 100%. The project was assigned to the Renzo Piano Building Workshop in February of 1999.

The museum is located on South Michigan Avenue, at the centre of a large park on the shores of Lake Michigan.

The Modern Wing has an area of 24,500 square meters and extends out of the northeast corner of the existing museum structure at about 200 feet from Michigan Avenue, opposite Millennium Park.

It's comprised of three elements: Griffin Court and two three-storey pavilions positioned on each side. The east building houses the exhibition halls, and the new building is home to the learning centre: a 1,850 square metre space that includes classrooms and laboratories for students and visitors.

The west building hosts additional exhibition halls, facilities for visitors, a restaurant and boasts a large terrace.

The two buildings are connected by Griffin Court, the Art Institute's new entrance area off Monroe Street. This entry provides visitors with direct access to the heart of the Art Institute itself.

From here, a thoroughfare, known as main street, traverses the entire building from north to south. Griffin Court also houses the ticketing counters, the cloakrooms and other services for visitors, including the gift shop and the Ryan Education Centre.

The limestone façades reflect the original building materials.

The north elevation, on the other hand, which provides access to the building, is comprised of transparent surfaces designed to control the microclimate and lighting of the interior. The façade is made up of a suspended external drapery – comprised of 67x600 cm h double panes of laminated glass divided by reinforced aluminium pillars – and a suspended interior curtain wall in single pane laminated glass, which hangs in front of the upper floors and is divided into 200x600 cm panels using the same aluminium uprights.

A 60 cm space between the two glass walls provides thermal and acoustic insulation, while a motorized roller blind shields the interiors.

The glass curtain hangs in front of the building's two upper floors, each of which are 6 m high, while only the interior portion of the curtain wall, made up of the double panes of glass, descends in front of the 5 m high entrance floor.

The roof is comprised of a large flat skylight, with a "veil" of 66% transparent fabric beneath it to protect the upper galleries, as well as an enormous (66 x 66 m) metallic sun screen, known as the flying carpet, which hangs at a height of about 2.6 m above the veil. The latter is made up of 2,656 profiled blades or vanes in extruded aluminium manufactured in Belgium using aeronautical engineering. These blades completely shield against the direct sunlight from the south, while filtering the light from the north in such a way so as to create optimal lighting conditions for both viewing and preserving the works of art. The "flying" canopy juts out over the area beneath one bay on the northern front and three bays on the southern front, thus also shading a portion of the garden area. On both ends, the protruding sections of the sunscreen canopy are supported and anchored to the ground by tubular steel "columns" with tapered cone-shaped tips, which are 20 metres high and just 35 cm in diameter. Compared to the museum's original structure, the façade and roofing systems used in the new structure proportionally provide for a 50% reduction in lighting and air conditioning costs for the exhibition areas.

The Nichols Bridgeway, which crosses over Monroe Street, is the footbridge that connects Millennium Park to the second floor of the Modern Wing.

Built with white steel, it has a length of 190 metres and a width of 4.6 metres and descends toward the park with a slope of 5.6%.

The Bluhm Family Terrace is an open area of about 3,400 square metres that offers a breathtaking view of Millennium Park. As an outdoor exhibition hall, it is used to host temporary installations. This space basically serves as a meeting place for the museum's visitors and is connected to the building via a stairwell, which is made of glass at the point in which it connects to the terrace and provides direct access to Griffin Court.

The Modern Wing was inaugurated on May 16th, 2009.