

# BUILD WITH STRENGTH

## CASE STUDY: FLEXIBILITY

### SOLOMON R. GUGGENHEIM MUSEUM

1071 5th Ave. New York, New York

**Completed:** 1959

**Project Size:** 51,000 sq. ft.

**Project Cost:** \$3 million

**Architect:** Frank Lloyd Wright

**Project Owner:** Solomon R.

Guggenheim Foundation



## A MODERN WORK OF ART.

While the Solomon R. Guggenheim Museum may be home to some of the most important works of modern art, the building is a work of art in itself. Designed by famed architect Frank Lloyd Wright, The Guggenheim testifies to the flexibility and beauty of concrete. From the street, The Guggenheim looks like a white ribbon rolled into a cylindrical shape; inside the museum, the spiral ramp circling the rotunda allows visitors easy movement between floors.

### 01. Strength is in the building materials.

Nearly 7,000 cubic feet of concrete and 700 tons of structural steel were used to form the structure and shell of the museum.

### 02. A seamless monolithic façade.

The Guggenheim was one of the first structures to use gunite, or sprayed concrete, on a large architectural scale. This technique allowed Wright to create a structure with smooth, unbroken curves.

### 03. Replicating art in its design.

The gallery walls slope slightly outwards from the floor. Wright designed the walls in this manner to mimic an artist's easel.

### 04. Unique design without sacrificing durability.

Twelve narrow reinforced concrete partitions pierce the spiral of the structure and serve as stiffeners. Web walls act as shear walls, transferring forces laterally and vertically to resist bending.