

Engineering: Famous Structures from Around the World

Famous Buildings in the United States

What makes them unique?

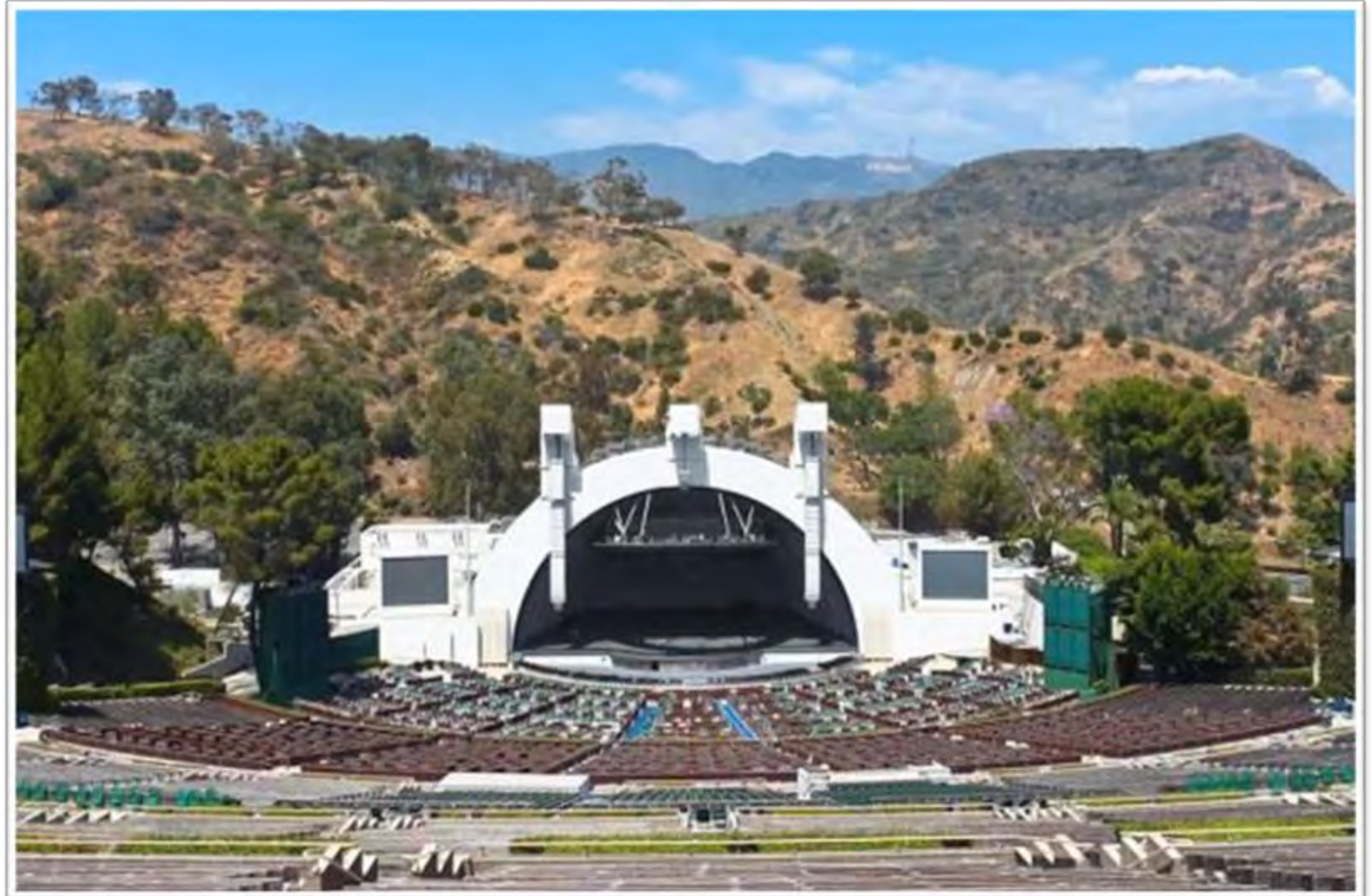
Fallingwater (Pennsylvania)

- Famous architect Frank Lloyd Wright designed this house for the family of Edgar J. Kaufmann, the owner of a famous department store.
- The house was used as a vacation home for the Kaufmann family.
- *Fallingwater* is famous for its integration with natural surroundings. The house is partially constructed above a waterfall on Bear Run.
- Today, Fallingwater is a tourist site.



Hollywood Bowl (Los Angeles, California)

- The Hollywood Bowl is a dome famous for its exterior, which was designed for sound.
- The dome is set in the Hollywood Hills, just northeast of the Hollywood sign.
- Concerts are still held at the Bowl today.



Faneuil Hall (Boston, Massachusetts)

- Since 1743, Faneuil Hall has served as a convention hall and marketplace.
- It is comprised of three granite structures named South, North, and Quincy markets.
- These markets have food, shopping, and entertainment.
- The hall was the site of historic speeches by famous Americans such as Samuel Adams and James Otis.



Seattle Central Library (Seattle, Washington)

- The Seattle Central Library is renowned for its unique artistic style designed by Joshua Prince-Ramus and Rem Koolhaas.
- The library is made of glass and steel.
- It contains eleven floors, is 56.9 meters tall, and can hold 1.45 million books.



Chrysler Building (New York)

- The Chrysler Building is an *art-deco*, multi-story building in New York City that stands 318.9 meters tall.
- It is known for its crown, which has 7 shiny joined arches designed to support each other.
- The lobby, which is adorned with red Moroccan marble walls, is triangular and has three entries.
- It has 32 elevators and the world's first digital clock.



US Capital (Washington, DC)

- The U.S. Capitol building is on Capitol Hill in Washington, D.C. and it is where Congress meets.
- The building is famous for its *neoclassical style*, including its large white dome.
- The building has approximately 600 rooms.
- Besides being actively used by Congress, the Capitol building also has a gallery of American history and art.



The White House (Washington DC)

- The White House is where the President works and lives.
- The building comprises various sections, including the executive residence, executive office, Blair House, the East Wing and the West Wing.
- The White House has 132 rooms, the most famous include the Oval Office and the press conference room. Less well-known are the bowling alley and a chocolate shop.



Longaberger Building (Ohio)

- The Longaberger Building is an exact replica of the basket the company is known for creating.
- Inside the building are glass ceilings and paintings of the building's founders along the walls.
- The window design allows plenty of natural daylight inside.



Kansas City Library (Kansas)

- The Kansas City Library is one of the oldest and largest libraries in the world and its architectural style is 20th century.
- Considered one of the most beautiful libraries, the large book spines outside are one of the main attractions.
- The exterior of the building is decorated with marble and mahogany.



Famous buildings outside of the United States

What aspects of each building appeals to you?

Hallgrímur Church (Reykjavík, Iceland)

- The Hallgrímur Church is the tallest and most unusual church in Iceland.
- *Nordic design* was used for the architecture of the building.
- Inside is a 50-foot tall organ.
- From the bell tower, a visitor can view the entire city.
- In front of the church is a statue of Leif Erikson, the first European to land in North America.



Atomium Building (Brussels, Belgium)

- The Atomium Building is 102 meters tall and was designed to have the shape of a cell unit of iron.
- The entire building was built from stainless steel, joining together 7 columns with clad spheres.
- Each sphere has a diameter length of 28 meters; the tubes have a length of 2,298 meters.
- There are escalators installed inside these tubes for visitors. The top of the building includes special viewpoints and a restaurant.



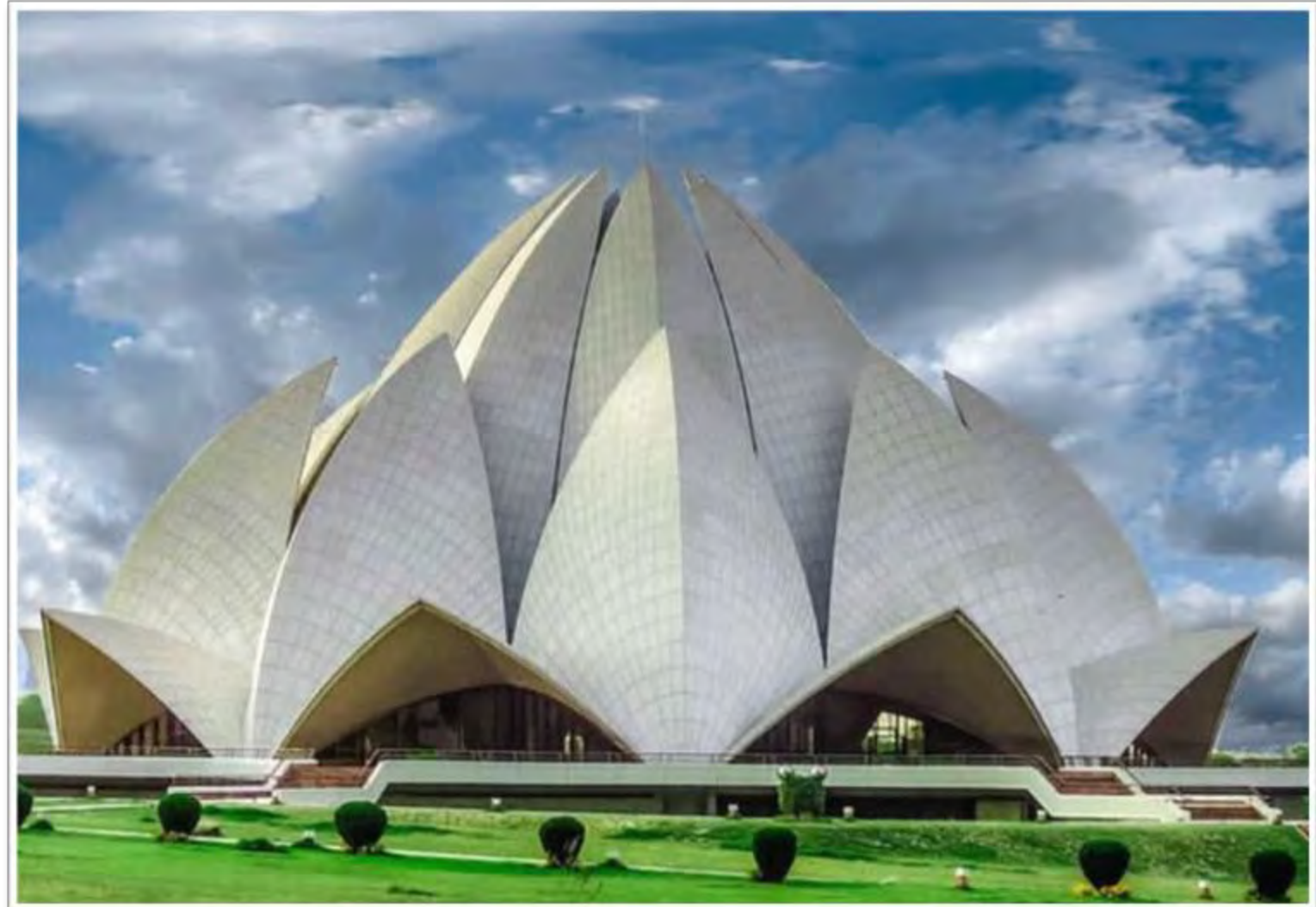
La Pedrera Building (Barcelona, Spain)

- It took 6 years to complete this uniquely designed building.
- It has cave-like balconies and a limestone facade.
- The roof of this building is decorated with pictures and postcards of Barcelona.
- The interior of the building was designed for bringing in a lot of daylight. There is also a stunning view of the city from the top.



Lotus Temple (New Delhi, India)

- The flower-like shaped Lotus Temple has free standing petals that were prefabricated from rock.
- The entire temple was made from marble, dolomite and cement.
- The central hall of the Lotus Temple can hold 2,500 people and has 9 very large doors.
- The ponds beside the temple create the feeling that the temple is floating, just like that of lotus flower.



Stone House (Portugal)

- The Stone House was built in 1974, inspired by The Flintstones cartoon home.
- The structure was built from two huge rocks linked together by a concrete mixture.
- The feel of the structure is from prehistoric times. It is one of the more popular tourist attractions in Portugal.



Mind House (Barcelona, Spain)

- It took 14 years for the completion of this strange looking building, starting from the year 1900.
- It was designed in the early 20th century and is listed on world heritage sites.
- This structure is actually a large complex that contains 60 different houses, chapels and a park. It has a stunning fountain at its center spot.
- There are statues posted at the different corners of the house.



Crooked House (Sopot, Poland)

- The crooked house is actually part of a shopping complex.
- It was inspired by fairy tales.
- At first look, visitors have a feeling that the building is about to melt away at any moment.
- It also has glass doors and blue and green enameled shingles which light up at night.



Your assignment as an Engineer

You will design, build and describe your own unique building. See the instructions on the next slide.

Engineering Assignment

- **Design** your own “famous” building.
- **Build** your famous building either by drawing it or by using materials that you have at home.
- **Describe** in 2 to 4 sentences why the building you designed is unique and what it is used for.

