

# Understanding the Importance of Civil Engineering in Shaping And Impacting the World

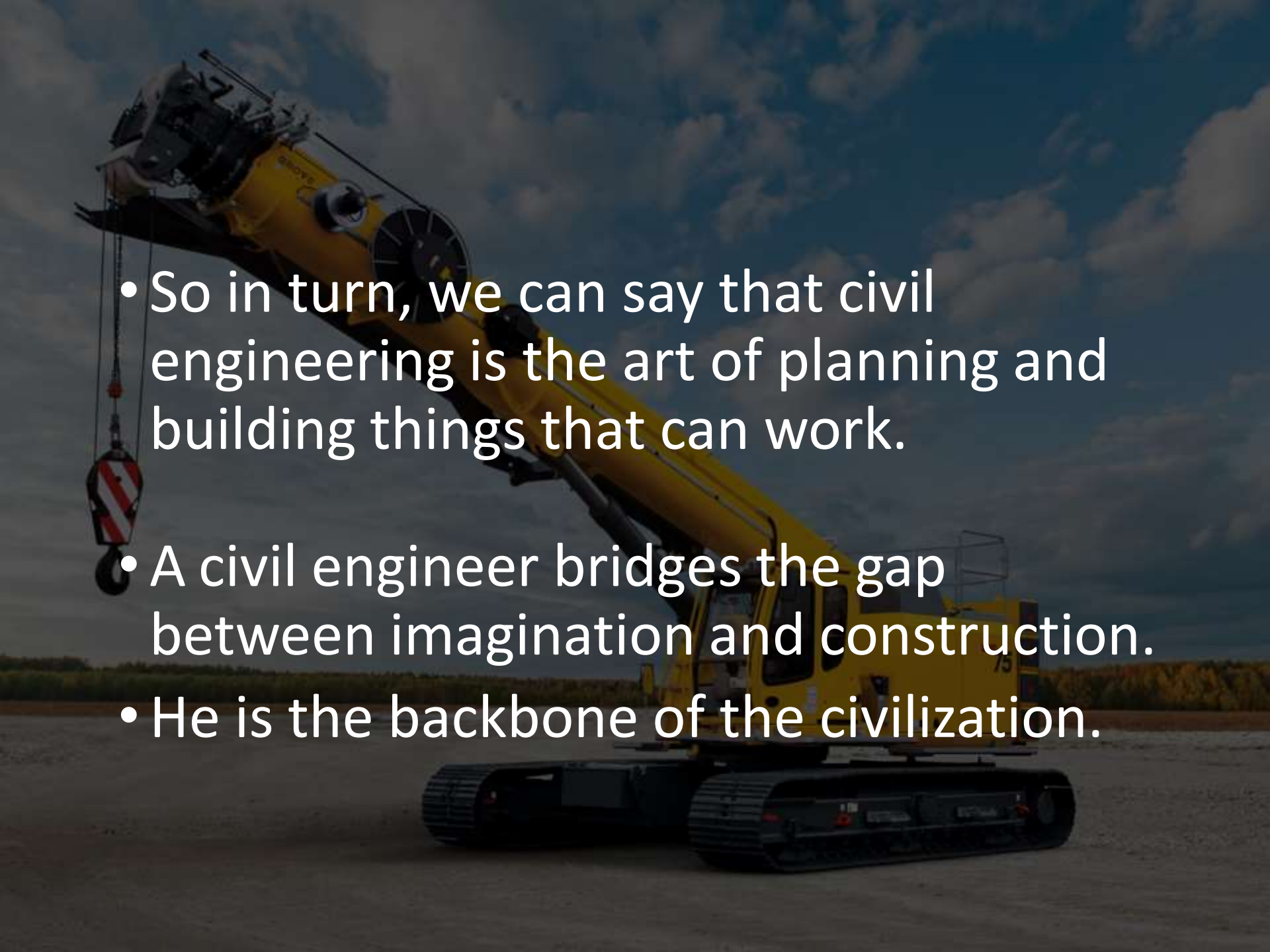
- Navjot Kaur
- 2314059



# What is Civil Engineering ?

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- Certainly! **Civil engineering** is a professional discipline that deals with the design, construction, and maintenance of the physical and naturally built environment . It encompasses public work such as roads, bridges, canals, dams, airports, sewage systems, pipelines, structural components of buildings and railways . In simple terms , civil engineers plan, design, oversee the construction and maintenance of various structures and facilities that serve the general public, including infrastructure like dams , highways and power plants.

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- A yellow crawler crane is shown in profile, lifting a large, dark, cylindrical metal component. The crane's boom is extended upwards and to the left. The background is a cloudy sky. The crane is on a flat, light-colored ground.
- So in turn, we can say that civil engineering is the art of planning and building things that can work.
  - A civil engineer bridges the gap between imagination and construction.
  - He is the backbone of the civilization.

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- A background image showing two men, likely civil engineers, on a construction site. One man is wearing a yellow hard hat and a dark jacket, holding a large set of blueprints. The other man is wearing a white hard hat and a dark jacket over a plaid shirt, pointing upwards with his right hand. They are standing in front of a large, multi-story building under construction, with scaffolding visible. The image is dimmed to allow the text to be prominent.
- The best creators next to God are the Civil Engineers.....

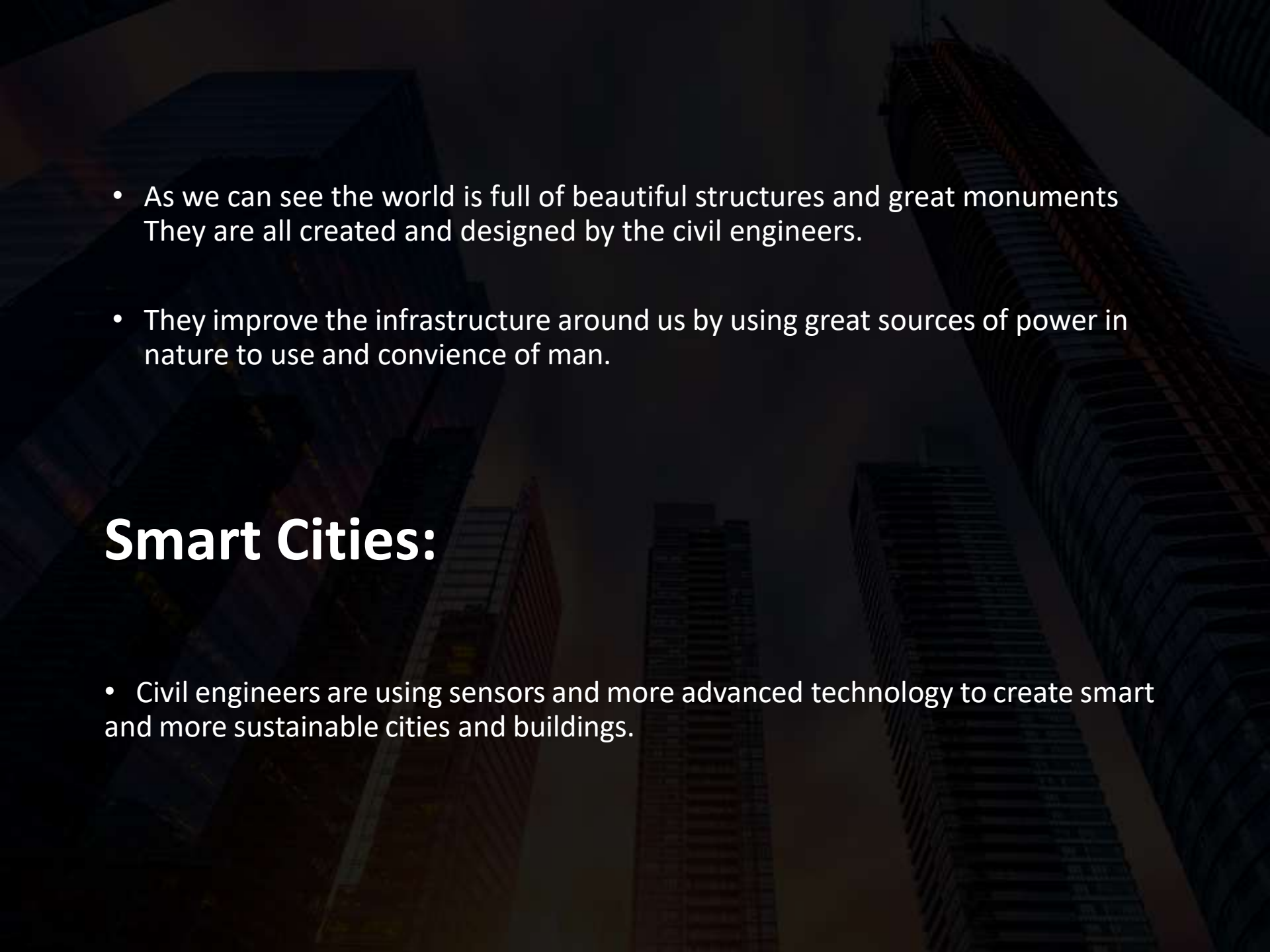




# Civil Engineering Shape the World

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- **Infrastructure Development economic Growth:** Robust infrastructure, such as roads, bridges, airports, and railways.
- **Technological Advancements Innovation:** Civil engineers leverage cutting-edge technologies like Building Information Modeling (BIM), 3D printing.
- **Disaster Resilience Safety:** Civil engineers design structures to withstand natural disasters like earthquakes, floods, and hurricanes.
- **Global Competitiveness Attracting Investments:** High-quality infrastructure attracts foreign investments and boosts tourism.

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- As we can see the world is full of beautiful structures and great monuments They are all created and designed by the civil engineers.
  - They improve the infrastructure around us by using great sources of power in nature to use and convenience of man.

## Smart Cities:

- Civil engineers are using sensors and more advanced technology to create smart and more sustainable cities and buildings.

# “Enhancing Structural Integrity and Sustainability”



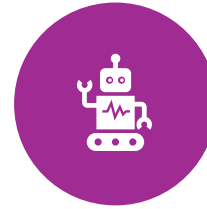
**FLEXIBLE FOUNDATIONS**



**DAMPING SYSTEMS**



**STRUCTURAL  
REINFORCEMENT**



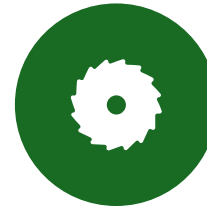
**VIBRATION CONTROL**



**MATERIAL SELECTION BY  
USING HIGH-STRENGTH  
MATERIALS**



**REGULAR INSPECTIONS  
AND MAINTENANCE**



**ADVANCED  
CONSTRUCTION  
TECHNIQUES**



# Burj Khalifa

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- **Location:** Dubai, United Arab Emirates
- **Height:** 828 meters (2,717 feet)
- **Completion:** 2010
- **Architect:** Adrian Smith of Skidmore, Owings & Merrill



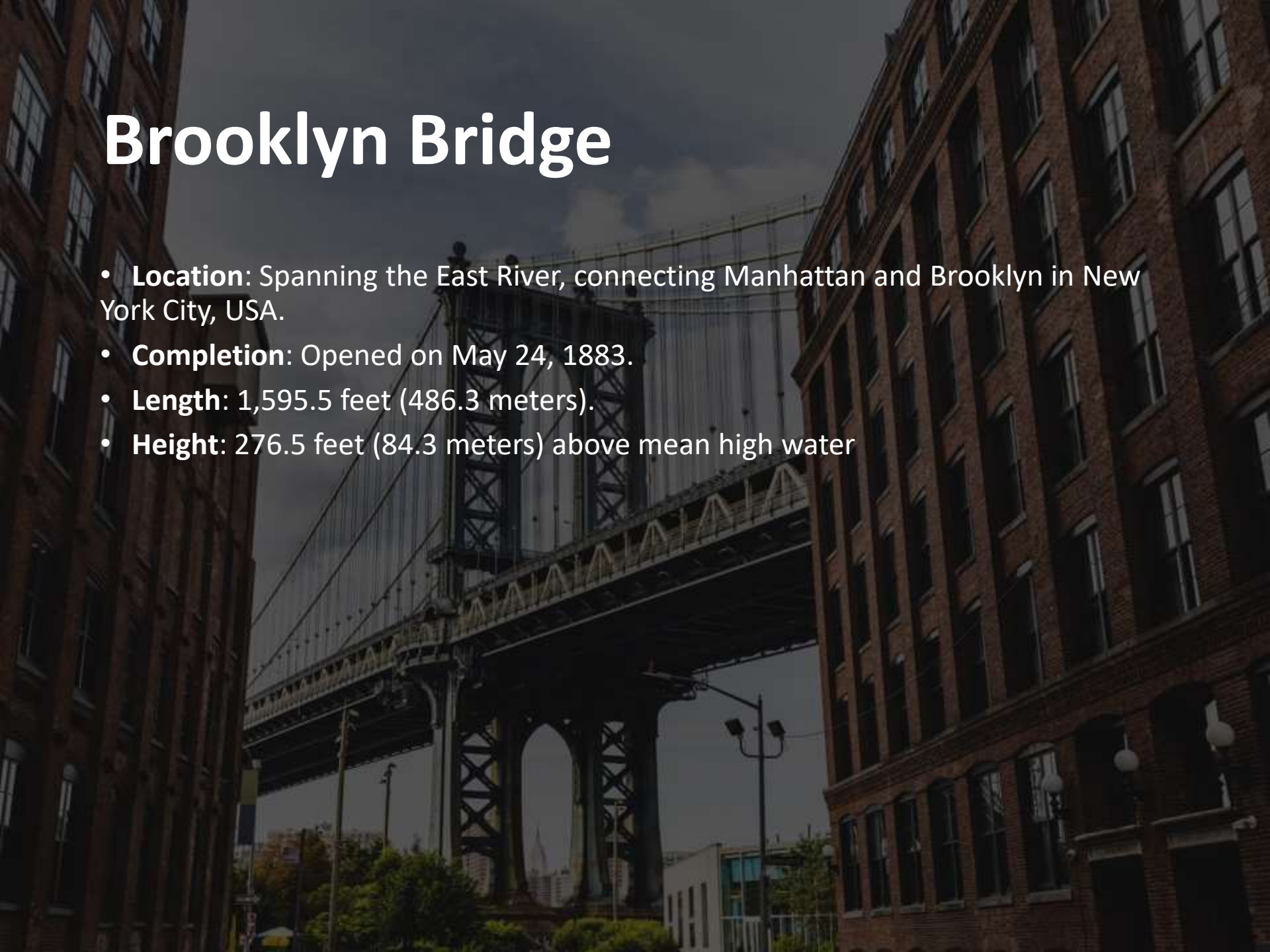
# Shanghai Tower

- **Location:** Luiza, Pudong, Shanghai, China
- **Height:** 632 meters (2,073 feet)
- **Floors:** 128 above ground, 5 below ground
- **Completion:** 2015



# Brooklyn Bridge

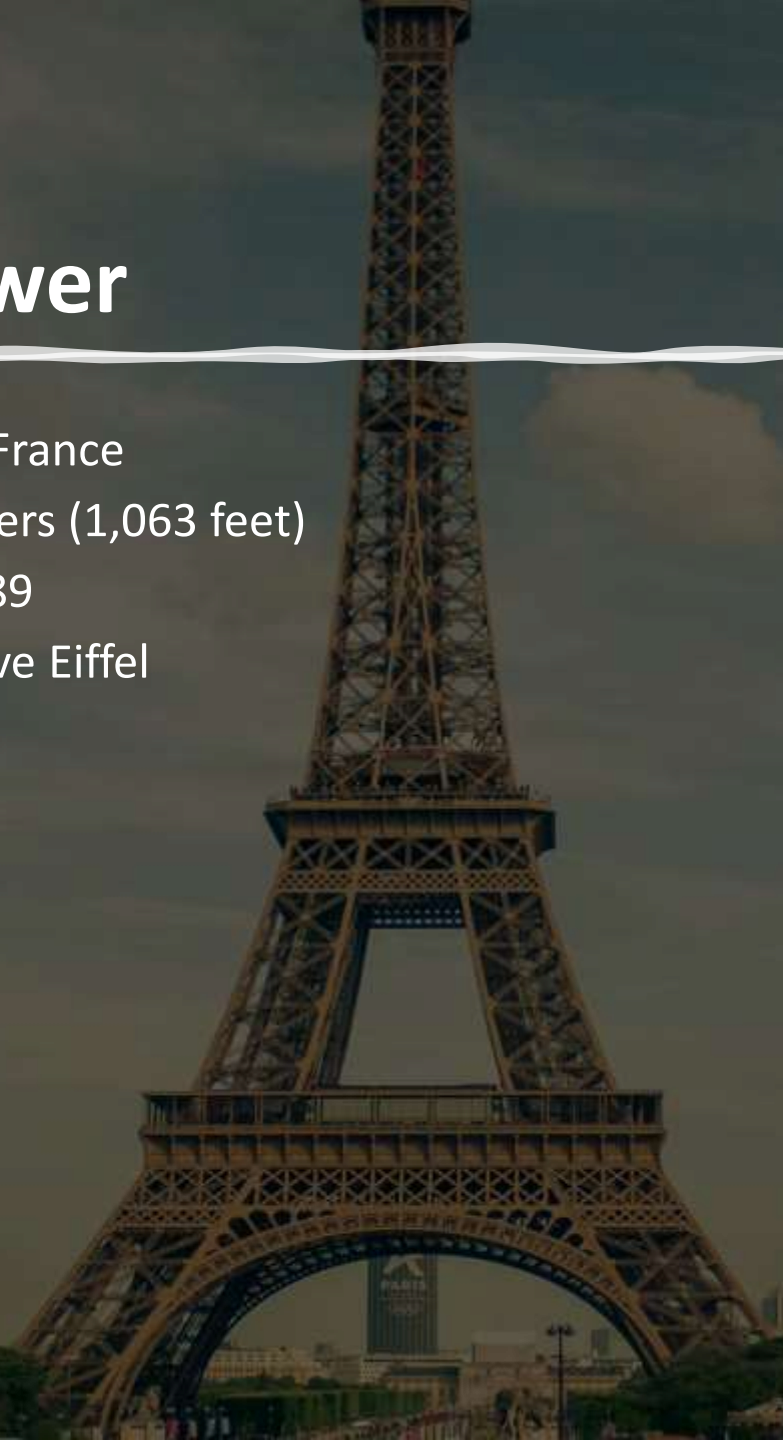
- **Location:** Spanning the East River, connecting Manhattan and Brooklyn in New York City, USA.
- **Completion:** Opened on May 24, 1883.
- **Length:** 1,595.5 feet (486.3 meters).
- **Height:** 276.5 feet (84.3 meters) above mean high water



# • Eiffel Tower

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- **Location:** Paris, France
- **Height:** 324 meters (1,063 feet)
- **Completion:** 1889
- **Designer:** Gustave Eiffel



A photograph of several wind turbines silhouetted against a vibrant sunset sky. The sun is a bright orange orb on the horizon, casting a warm glow. The sky transitions from deep orange near the horizon to a soft purple and blue at the top. The turbines are positioned at various heights and angles across the frame. The foreground is dark, showing the silhouettes of the turbines' towers and the ground.

**Thank You**