

Cover Letter

This essay discusses the individuals involved in creating one of the most infamous landmarks in the United States, the Brooklyn Bridge. It stands as a symbol of the hard work and sacrifices made by those who contributed to its construction. The focus is on key figures such as John A. Roebling, Washington Roebling, Emily Roebling, and the workers who risked or lost their lives under hazardous conditions.

The essay explores the essential roles played by each person: John's innovative engineering ideas, Washington's unwavering determination to continue the project, and Emily's leadership during a time when women had limited opportunities. It also highlights the workers' endurance in facing perilous work environments to bring the bridge to life. Ultimately, the essay illustrates how teamwork, persistence, and resilience were vital in the construction of the Brooklyn Bridge, and how the collective efforts of all involved made its completion possible.

The Key People Who Made the Brooklyn Bridge Happen

The Brooklyn Bridge is an influential structure in the United States. It is a suspension bridge that stands over the East River, connecting Brooklyn and Manhattan. Its construction completely changed the landscape of New York City, but its building process was not an easy walk in the park. It took a lot of dedication and sacrifices from engineers like John A. Roebling, his son Washington Roebling, and Emily Warren Washington's wife. Additionally, the workers who risked their lives in unsafe work environments and the ones who died during the process. Every person involved played a huge part in making the bridge become a reality.



NYC DOT. *Brooklyn Bridge*, www.nyc.gov/html/dot/html/infrastructure/brooklyn-bridge.shtml.

Accessed 2 Apr. 2025. The Brooklyn Bridge is in its current state.

John A. Roebling

John A. Roebling was the main engineer behind the Brooklyn Bridge. He was known as the visionary who made the bridge possible. Roebling was already a successful engineer, having designed other suspension bridges, but his idea for the Brooklyn Bridge was his most impressive achievement (Mann & Witschonke, 2001). He saw the chance to build a bridge across the East River to connect Brooklyn and Manhattan when the river froze over in the winter of 1867. His design was groundbreaking because it used steel cables as a new way to support the huge structure. It was going to be the largest suspension bridge in the world at that time (History, 2019).

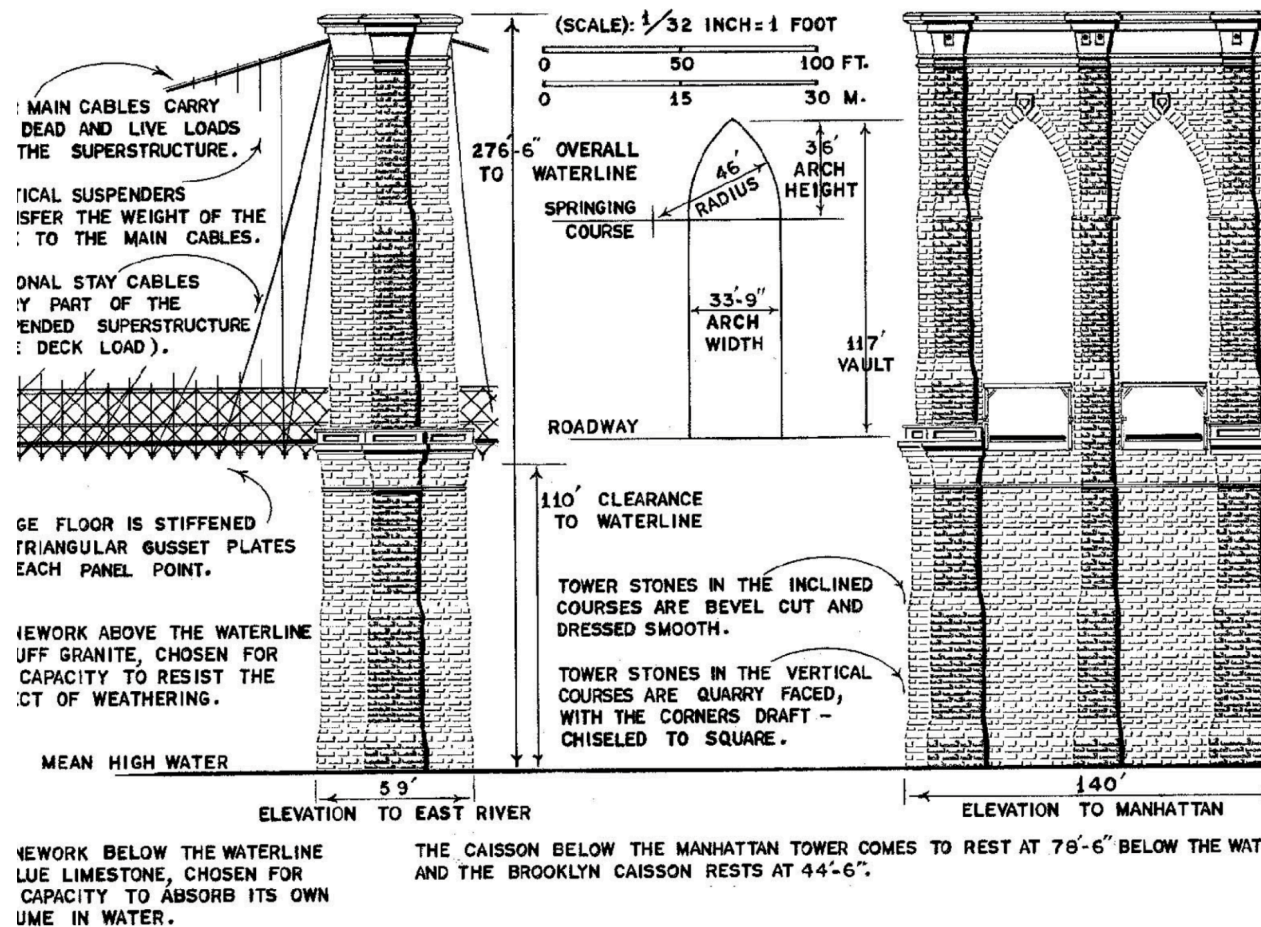


Image 1: Witcher, T.R. "Brooklyn Bridge Original Blue Print," *American Society of Civil*

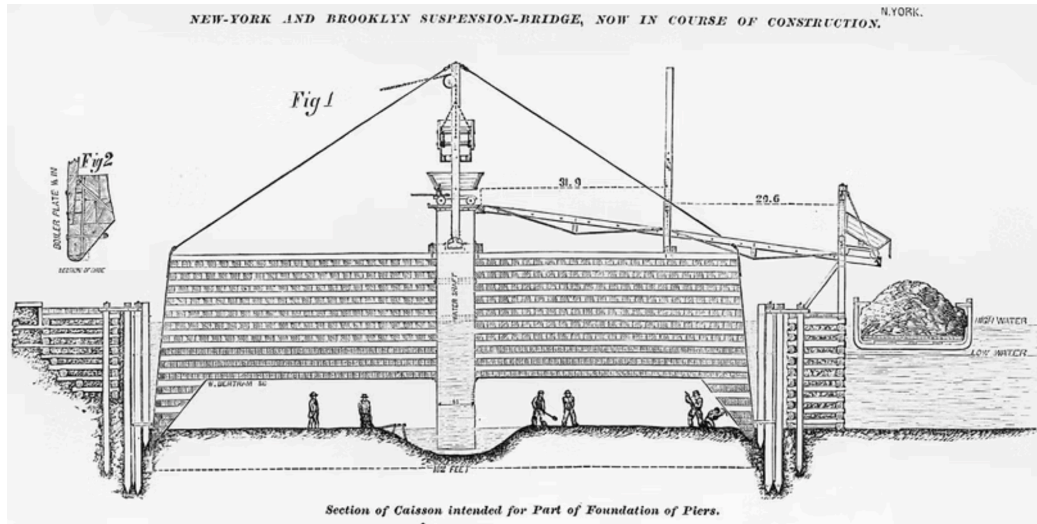
Engineers, 1 July 2022,

www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/issues/magazine-issue/article/2022/07/new-yorks-brooklyn-bridge-is-an-engineering-marvel. Accessed 28 Mar. 2025.

Sadly, Roebling's life was cut short before construction could begin. In 1869, he died in a boating accident while inspecting the site for the bridge (Mann & Witschonke, 2001). Even though he passed away, Roebling's vision and influence lived on through his son, Washington Roebling. He took over the task of finishing the project. John's design and ideas were crucial in getting the bridge built, and his work on suspension bridges, especially with the cables, helped shape how future bridges would be made ("Brooklyn Bridge," n.d.; Mann & Witschonke, 2001).

Washington Roebling

After John Roebling passed away, his son, Washington Roebling, took over as the main engineer in charge of building the Brooklyn Bridge. Washington inherited his father's intelligence, he worked nonstop to make his father's dream a reality. But his involvement came at a huge personal cost. While overseeing construction, he got decompression sickness from spending too much time in the caissons. They were huge pressurized tunnels that were used to dig the foundation for the bridge underwater (Mann & Witschonke, 2001).



History.com. *Brooklyn Bridge*, www.historydilemmas.com/brooklynbridge. Accessed 2 Apr. 2025. The underwater caissons the workers and Washington Roebling worked in.

This illness left him unable to walk or move for months, so he couldn't supervise the bridge's daily construction. Even though he was seriously sick, Washington stayed involved, by directing work through his wife, Emily Roebling, and making important decisions from his bed (Mann & Witschonke, 2001). His determination despite being in pain and isolated, was key to the bridge's success. Without Washington Roebling's commitment, the Brooklyn Bridge would never have been finished. His suffering shows the huge sacrifices made by him, other engineers, and workers throughout the project (Wikipedia, n.d.).

The Workers

Even though John and Washington Roebling were important for the design and management of the Brooklyn Bridge, the workers who built it were also essential. A majority of these workers were immigrants. They faced dangerous and hazardous work environments, especially the ones working in the submerged caissons. These workers spent hours in pressurized

chambers, digging into the East River's riverbed to build the foundation for the bridge's massive stone towers. Unfortunately, the conditions inside the caissons were extremely dangerous, and a lot of workers became ill with a disease called decompression sickness, or 'the bends' (Mann & Witschonke, 2001). This painful and sometimes deadly condition happened when workers moved too quickly from the high-pressure chambers to normal air pressure.

A lot of workers died from this illness, and even more suffered serious injuries. At least 20 workers lost their lives working in the caissons, but the actual number might have been higher (Wikipedia, n.d.). Even though the environments were dangerous, the workers kept going because finishing the bridge was very important. Their sacrifices don't always get the credit they deserve in the story of the bridge, but they were essential to making the bridge happen. The workers' strength and determination, even in the face of death, show just how much dedication it took to finish the Brooklyn Bridge. According to a report from the New York City Department of Transportation (n.d.), their persistence was key to the project's success because they worked in conditions that modern construction teams would never agree to.

Emily Roebling

While John and Washington Roebling were the official engineers behind the Brooklyn Bridge, Emily Roebling was Washington's wife. She also played a very important role in its construction. When Washington got too sick to oversee the bridge's progress, Emily stepped up and took over his responsibilities. She made sure his instructions got through to the workers and kept everything running smoothly in his place (Mann & Witschonke, 2001). Emily became the bridge's manager, handling the day-to-day activities, inspecting the site, and making important decisions. Her involvement was crucial to finishing the bridge, but she did not get as much

recognition as she deserved.



Baker, Nina C. *Emily Robeling*, 23 Sept. 2019,

www.magnificentwomen.co.uk/engineer-of-the-week/83-emily-roebing. Accessed 2 Apr. 2025. Emily Robeling, took over the construction project after her husband became ill.

Back then, women were not involved in engineering or big construction projects, but Emily's leadership and intelligence broke those gender barriers. She proved that even in a male-dominated field, women can play major roles in making huge milestones. Emily's work on the Brooklyn Bridge not only just helped get the job done, but also showed that women can contribute to major achievements. According to the History website (2019), Emily's skills in engineering and supervision were important in keeping the bridge on track, showing that leadership can look different, even when society has certain expectations.

The Brooklyn Bridge shows the effort, hard work, and commitment of all of the people who have contributed to its construction. Like John A. Roebling who created the structure blueprint, Washington Roebling who was determined to lead the project even though he was sick, the workers' persistence in dangerous working conditions, and Emily Roebling who led its construction in its final stages. Without everyone's hard work and sacrifices, the Brooklyn Bridge never would have been finished. Everyone who played an important role during the construction of the bridge showed that big achievements require teamwork, sacrifice, and determination. The Brooklyn Bridge is a representation of human strength and the ability to push through challenges for the benefit of humanity. It stands today as a reminder of the effort that the workers put in to make it possible, each person was essential to its creation.

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