



EMILY WARREN ROEBLING

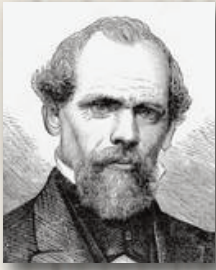
# Emily Warren Roebling: Graceful Determination

*By Faith K. Stern*

In 1883 the **Brooklyn Bridge** opened to universal acclaim, admired both for its surprising beauty and its breathtakingly successful engineering. As Brooklyn mayor Seth Low proclaimed at its festive opening, “Not one shall see it and not feel prouder to be a man.”

How this iconic structure was created is both a moving human story and a chronicle of innovative engineering. Both aspects are explained by this principle of **Aesthetic Realism**, the education founded by the American poet and critic **Eli Siegel**: “All beauty is a making one of opposites, and the making one of opposites is what we are going after in ourselves.” Opposites made one in the bridge—strength and grace, heaviness and lightness, determination and ease, simplicity and complexity—are the same opposites the Roeblings, creators of the bridge, hoped to have one in themselves, just as every person now alive also does.

**John A. Roebling** designed the bridge; his son **Washington** became chief engineer upon his father’s untimely death; and Washington’s wife, **Emily**, faithfully



JOHN  
ROEBLING



WASHINGTON  
ROEBLING



EMILY WARREN  
ROEBLING

and imaginatively became her husband's private secretary, diplomatic emissary, nurse, and indispensable assistant after he was partially paralyzed by caisson disease.

Emily Warren Roebling is therefore a woman important in American history, and she is honored by a bronze plaque on the Brooklyn tower of the bridge she helped to build. I came to know of her through my husband, John, who wrote "*The Brooklyn Bridge: A Study in Greatness*" with Aesthetic Realism consultant Carrie Wilson (which they gave by invitation at the official celebrations of the 120th and 125th anniversaries of the opening of the bridge).

Emily was born Emily Warren in 1843 to a family long established in Cold Spring, New York, on the Hudson River 50 miles north of New York City. She met Washington Roebling, then a colonel in the Union army serving under her brother General Gouverneur Warren, at an officers' ball during the Civil War in 1864. He was attracted by her grace, charm, and intellect—she had an advanced education and an inquiring mind—and they fell in love. The next year they were married. Soon after the war he was called to Cincinnati to assist his father, John A. Roebling, in completing the great suspension bridge across the Ohio River there. He assumed that Emily would stay with her parents in Cold Spring, but she wanted very much to be part of her husband's life and work and insisted on joining him in Cincinnati.

In 1869 Washington and Emily moved to New York, to work with his father on the new bridge that was to connect the growing cities of New York and Brooklyn. Marilyn Weigold writes in her biography of Emily, *Silent Builder*, that for the Roeblings, "there was no nobler objective than completing the great bridge."<sup>1</sup> And when John Roebling died that same year as the result of an accident, Washington became chief engineer of the bridge. "At first I thought I would succumb,"







BROOKLYN BRIDGE  
CIRCA 1950'S



he wrote, “but I had a strong tower to lean upon, my wife, a woman of infinite tact and wisest counsel.”<sup>2</sup>

In 1872 Washington became partially incapacitated by caisson disease as a result of his work on the underwater foundations for the towers of this tremendous structure. To assist her husband, Emily began to learn the intricacies of bridge engineering—higher mathematics, stress analysis, the strengths of materials, and more. She learned these so well that she was able to carry out her husband’s detailed instructions and oversee the work of the men who were building what was, in the 1870s, the longest—and what many people feel is still the most beautiful—suspension bridge in the world. Ms. Weigold tells us:

*[Washington] painstakingly dictated correspondence to his wife. Day after day Emily faithfully took down notes....To protect his [eye]sight from deteriorating further,...he had her read everything back to him.*<sup>3</sup>

Then he made revisions and she read it back to him again, as many times as were needed. *Silent Builder* continues:

“Given her bright mind and all the repetition involved in the process, Emily amassed an enormous amount of information about bridge building.”<sup>4</sup> She met with engineers, foremen, and suppliers’ representatives as equals. In one instance she helped a steel mill supply new shapes needed for the bridge. “By her knowledge of engineering,” Ms. Weigold



BROOKLYN BRIDGE & PARK  
CIRCA 2010

explains, “she helped them out with their patterns and cleared away difficulties that had for weeks been puzzling their brains.”<sup>5</sup>



EMILY WARREN  
ROEBLING

This exemplifies a beautiful mingling of strength and grace which, I've learned from Aesthetic Realism, arises from the intense desire to know and respect the world outside oneself. This is what Emily was able to do to a very large extent. Her graceful yielding to the facts of engineering and politics made for her strength in dealing with all sorts of situations, in order to ensure that her husband's plans and decisions were carried out exactly. She exercised force with tact, principle with diplomacy. Historian David McCullough writes in his magisterial book, *The Great Bridge*:

*How many ruffled feathers she smoothed, how many times she sat patiently listening first to one side of an argument, then another, how many tactful words of caution she offered [visitors] before they entered [Washington's] sickroom, how frequently she herself dealt directly with [officials and trustees] is not indicated in the record. But the impression is that she was very busy indeed at just such tasks. Roebling would describe her role as "invaluable."<sup>6</sup>*

Emily's devotion to the bridge, her knowledge of engineering, and her loyalty to her husband, especially during crises, made her greatly admired. David McCullough explains:

*Apparently just about everyone involved with the work liked her enormously and held her in great regard, regardless of his politics, profession, age, or particular feeling about her husband. That she was welcome among them, her opinions regarded seriously, was considered testimony in itself, in a day and age when*



WORKMAN  
CABLES & ARCH





EMILY WARREN  
ROEBLING

*a woman's presence in or about a construction job... was absolutely unheard of.*<sup>7</sup>

In his definitive essay, "A Woman Is the Oneness of Aesthetic Opposites," Eli Siegel writes about opposites every woman is trying to have one in herself:

*HARD: SOFT Often a determination comes to women which can hold its own with that of Napoleon or a boulder in a city park. And women are also pitying, sympathetic, moved to give up their notions because of the plight of another.*<sup>8</sup>

Emily certainly had a firm determination that the Brooklyn Bridge must be built, and that she would do whatever was necessary to achieve that.

Emily also was moved to give up her notions of normal domestic life because of her husband's precarious health, which cast doubt on whether the bridge would be built at all. Her determination was one aspect of her strength, while her compassion and diplomacy were aspects of her grace in meeting such a challenging situation.

In fact, the Brooklyn Bridge could not have been built as it was had not Washington and Emily Roebling respected each other and the facts of engineering as thoroughly as they did. But as David McCullough tells us, they were "both people of 'decided temper,'" which suggests that they could disagree, sometimes heatedly, and perhaps not always with good will.

While Emily was invaluable to her husband during the building of the bridge, she also made the mistake of many wives which, I've learned from Aesthetic Realism, is the biggest danger for a person:



BROOKLYN BRIDGE  
AT SUNSET



BROOKLYN BRIDGE  
THEN

the desire to have contempt, to get a “false importance or glory from the lessening of things not oneself.” Contempt makes us unseeing and unjust, has us assert ourselves without grace.

Like many women, she felt increasingly impatient with and superior to her husband. Years later, writing to their son John, she asserted (and this way of asserting herself was decidedly ungraceful): “I have more brains, common sense, and know-how generally than any two engineers, civil or uncivil, that I have ever met.... Your father was for years *dead* to all interest in the bridge.”<sup>9</sup>

This was simply not true. Washington was alert, active, and innovative in every phase of construction, even when he was almost prostrated by caisson disease, meanwhile helping Emily learn everything she came to know about bridge building. During construction they were a superb team as they worked together to build the bridge.



BROOKLYN BRIDGE  
NOW

How to assert ourselves gracefully—which is respect—is a question every person has, and the Brooklyn Bridge shows it can be answered. David B. Steinman and Sara Ruth Watson write in their book, *Bridges and Their Builders*:

*The pierced granite towers, the graceful arc of the main cables, the gossamer network of lighter cables, and the arched line of the roadway combine to produce a matchless composition, expressing the harmonious union of power and grace. It is a thing of enduring beauty.*<sup>10</sup>

As we go about our lives, we want to have the same purpose as the Brooklyn Bridge: be strong but not heavy-handed or overbearing, graceful without being weak or limp. We want to assert ourselves, as Emily Roebling



certainly had the right to do, without being unjust to others. As we look at the bridge and study how it came to be built, we can learn, through the knowledge of Aesthetic Realism, about our own lives, our own questions. We can ask—in relation to a husband or wife, a son or daughter, a parent, or anyone: As I assert myself with this person, am I sufficiently graceful, yielding, considerate of what that person feels and deserves?

Washington and Emily Roebling, as husband and wife, could have learned from the very opposites that their magnificent creation puts together so well, including strength and grace. The way its cables and diagonal stays are strong yet yielding, firm and flexible, as they lift the heavy roadway across the wide waters, provides a lasting example of how we want to be both strong and graceful, grounded and soaring. As we have the grand experience of walking across the bridge through those arches of granite and space, embraced by the spider's web of suspender cables, and we look out at the expansive vista all around us, we feel proud and humble at once, related to wide space and solid matter. The world is welcoming as it also adds to us. This is what we want to feel as we meet other people and new situations during the days and years of our lives.



THE ROEBLINGS – METAL SCULPTURE AT THE BASE OF THE BROOKLYN BRIDGE BY KEITH GODARD



**FAITH K. STERN** is an Aesthetic Realism consultant, is co-author (with her husband) of “The Imaginative Beauty of New York's High Line” on the website [beautyofnyc.org](http://beautyofnyc.org), and has also written on subjects that include film, love, and the family. For a more complete bio click on this link: [FaithKStern](http://FaithKStern)

<sup>1</sup> Weigold, Marilyn, *Silent Builder* (Port Washington, NY: Associated Faculty Press, 1984, p. 27)

<sup>2</sup> McCullough, David, *The Great Bridge* (New York: Simon & Schuster, 1972, p. 452) <sup>3</sup> Weigold, p. 32-33

<sup>4</sup> *ibid.*, p. 33 <sup>5</sup> *ibid.*, p. 33 <sup>6</sup> McCullough, p. 474 <sup>7</sup> *ibid.*, p. 474

<sup>8</sup> Siegel, Eli *The Right of Aesthetic Realism to Be Known* (New York: Aesthetic Realism Foundation, No. 513, February 2, 1983)

<sup>9</sup> Weigold, p. 57 <sup>10</sup> Steinman, David B. and Watson, Sara Ruth, *Bridges and Their Builders* (New York: Dover Publications, 1957, p. 247)