



## SETTING A JEWEL

RE-CREATING THE ORIGINAL FRAME  
FOR *WASHINGTON CROSSING THE DELAWARE*

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# Setting a Jewel: Re-creating the Original Frame for *Washington Crossing the Delaware*

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Modern-day museum curators and collectors alike give great thought and care to the proper display of works of art, seeking to honor the original intent of the artist and his time. Research in the field provides considerable information about specific periods and styles of frames. A particular pattern of ornament, a precise type of leaf, or a specific tonality of gilding contributes to the understanding of what comprises an historically appropriate frame. If available, period photographs that illustrate works in their original frames are an invaluable resource. Over the past two decades many paintings in the American Wing of the Metropolitan Museum, among them *Madame X* by John Singer Sargent, *Max Schmidt in a Single Scull* by Thomas Eakins, and *Lydia Crocheting* by Mary Cassatt, have received more historically appropriate and aesthetically complementary frames.

One painting in particular, however, provoked passionate concern: *Washington Crossing the Delaware* by Emmanuel Leutze. While many are familiar with the iconic depiction of Washington's valiant crossing, few realize that the painting is enormous: 12 feet tall and 21 feet across. And yet at least since 1918 it had been enclosed in a plain, narrow, gilded frame unbecoming a canvas of such monumental size and import. Although art historians suspected that the iconic painting must once have been given a frame more in keeping with its size and subject, years of research had yielded little information. That changed in 2006. Kevin Avery, then a curator at the Metropolitan, was searching for information at the New-York Historical Society about another painting when he came upon a leather-bound volume that famed nineteenth-century photographer Mathew Brady had titled *Recollections of the Art Exhibition at the Metropolitan Fair New York 1864*.<sup>43</sup>

Considered the father of photojournalism, Brady (1822–1896) studied with daguerreotypist Samuel F. B. Morse before striking out on his own in 1844. During the Civil War he photographed a number of Union and Confederate officers and organized a staff of more than twenty assistants who went directly to the battlefields to capture the harsh realities of war. Today the thousands of images Brady produced serve as the most important visual documentation of the Civil War. He also made photographs of eighteen American presidents, including several well-known portraits of Abraham Lincoln.

Brady was a member of the art committee for the Metropolitan Fair in 1864, and he exhibited some of his photographs and then donated them to the benefit auction. Held on behalf of the nonprofit United States Sanitary Commission, the fair sought to raise money for supplies and aid for injured Union soldiers. Like a small World's Fair, it showcased Yankee industry and ingenuity. Brady's photographs of the art gallery at the fair (figs. 32, 33) show Leutze's magnificent painting displayed in an equally dramatic frame replete with patriotic regalia, including a





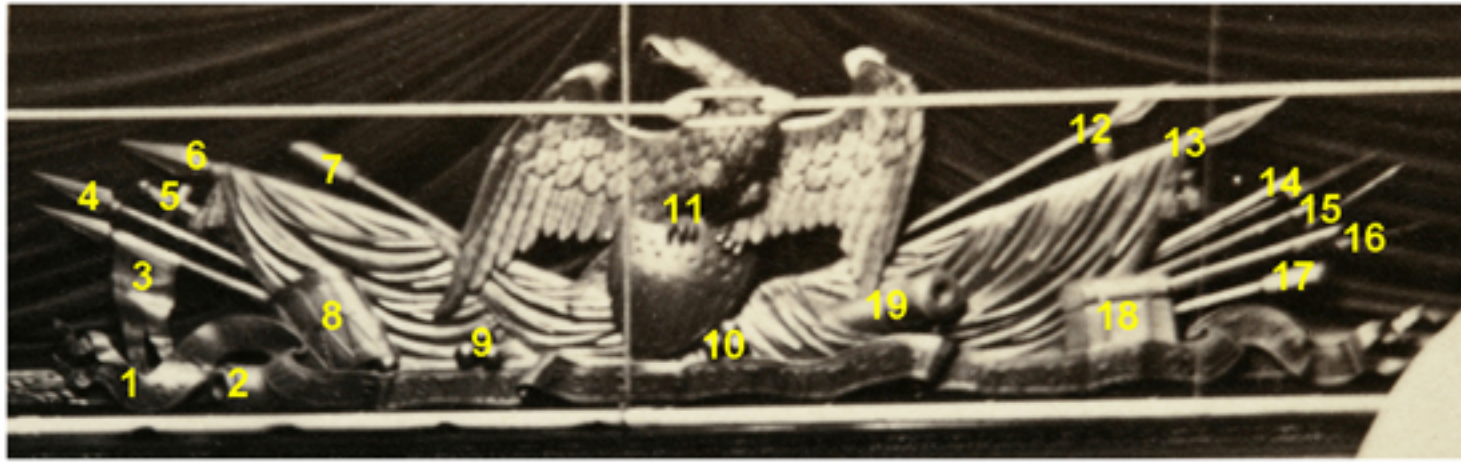
crest several feet across crowned by a spread-winged eagle. Fortuitously, the thrilling discovery of the photographs coincided with plans for the renovation and expansion of the American Wing and the reinstallation of its paintings galleries. It was an opportune moment to reconsider how Leutze's painting should be displayed, and the Museum called on Eli Wilner & Company to re-create the magnificent eagle-crested frame.

We set about the daunting task of turning just two small photographs into a much larger three-dimensional object. Moving from a two-dimensional reference to a three-dimensional object poses obvious challenges. The 1864 photographs were indistinct or out of focus in places. There was no view from the side that would have allowed us to discern the relief of the crest and other ornamental objects. The best photograph was taken at a slight angle to the frame, so we had to account for foreshortening and consider how the view of the crest—fifteen feet above the bottom of the frame—was affected. The enormous size of the frame posed a problem. We estimated that it would weigh 2,000 pounds, so we needed to determine how to join it safely and how to mount the crest.

Our task began in 2007 with extensive research provided by the curatorial staff at the Metropolitan.<sup>44</sup> A fascinating, comprehensive report confirmed our belief that the frame had been made when the painting was first exhibited in 1851, thirteen years before the Sanitary Fair. Considering its monumental size, the painting was probably rolled for shipment from Germany and framed only after it arrived in New York. Indeed, on October 14, 1851, the *New-York Daily Times* reported that the painting would "positively be exhibited during the latter part of this month. . . . The delay in its exhibition is caused by its having been sent over without a frame."<sup>45</sup> An article in the *Literary World* published four days later remarked, "We saw this painting under great disadvantages, it being set against the wall, without a frame, and in a bad position for light, but we are sure that the highly-wrought anticipations of the public will be more than realized."<sup>46</sup>

*Washington Crossing the Delaware*, with its new frame, was ready for viewing at the Stuyvesant Institute on October 29, 1851. Morillo Noyes, a businessman from Burlington, Vermont, echoed the sentiments of the steady stream of Americans who crowded the gallery. On November 11 he wrote to his wife: "Upon my return down Broadway, it being quite early in the evening, I was induced to pay a visit to Leutze's Painting of 'Washington's Crossing the Delaware,' now about two weeks [on] exhibition in this country. It is certainly a meritorious & magnificent work of art, and forcibly illustrates the skill, beauty & grandeur of man's efforts when perseveringly directed for a worthy & noble end. The size of the painting is enormous, meaning, as I should estimate, 24 or 30 feet in length, by 18 or 12 feet in height. The frame is very rich & elegant, upon which among other striking selections of important Revolutionary events, are – 'First in War, First in peace & First in the hearts of his Countrymen.'





33. Detail of one of the 1864 photographs (fig. 33), with each object in the crest numbered to facilitate research

It would certainly gratify you much to see it, & much do I wish that you could do so. Its success so far has been highly favorable."<sup>47</sup>

The report from the Museum also explored historical precedents for depictions of Washington with martial emblems. Each individual object in the crest was numbered on a detail of the Brady photograph (fig. 33), and examples were gathered of related styles of decoration in use at the time: eagles, military heraldry, rifles with fixed bayonets, cannons and flags, and the unfurled ribbon bearing text that sweeps across the bottom of the crest. Several words and letters on the ribbon were visible in the photo: the word *war* draping over the cannon, the letter *F* just right of center on the drum, *in* centered under the left set of cannonballs, *peace* after the fold and left of the shield, and a second *first* centered under the right set of cannonballs. Clearly the ribbon contained the phrase "first in war, first in peace, first in the hearts of his countrymen" that Henry "Light Horse Harry" Lee used in 1799 when he eulogized Washington in Congress. By the 1850s Lee's words were embedded in popular culture.

Armed with the findings of the Museum's report, we made a trip to the New-York Historical Society with our studio manager, Myron Moore; our master carver, Felix Teran; and our expert woodworker, Ernest Pollman. There we were able to view firsthand many items from the period that were depicted in the crest: rifles, bayonets, muskets, cannon rammers, cannonballs, drums, pikes, and carved spread-winged eagles. Examining these objects allowed Teran to articulate details in his carving that were indecipherable in the photographs.

After our thorough visual and historical review we began planning for construction. The Brady photographs were scanned at the highest possible resolution to allow for enlargements. Because the original photo was taken at a slight angle, our scan was skewed to square it and to match the known proportions of the painting. Once this was complete, we were able to determine the exact dimensions of the crest, the width of the molding (13 inches), and the spacing of elements within the profile. The classic cove profile and the essential ornaments visible in the photographs, including the acanthus-leaf motif near the sight edge and the leaf-and-berry pattern that runs along the top rail (fig. 34), are typical of American frames of the 1850s, so we searched our extensive inventory for frames of the same period as the original Leutze frame. Although we found examples that were identical in style (see fig. 35), the scale was far too small, and the decoration on the prototypes had to be enlarged to the correct proportion for the Leutze frame. Once we had determined the correct size and spacing of the ornaments, we were able to make a detailed drawing of the proposed profile of the new frame.

With the profile drawing in hand we calculated how much material would be needed to build the frame. The profile was 9 inches high and 13 wide and the two horizontals more than 24 feet long. For dimensional stability and ease of shaping the molding, and because of the limita-





34–35. Blowup of the leaf-and-berry pattern along the top rail of the frame in the 1864 photographs and a detail of an 1850s frame with leaf-and-berry decoration

tions of the available materials, the frame had to be crafted from nine separate sections of wood laminated together. Shaping the profile would reduce the weight of the wood to some degree, but when we factored in the addition of the gesso layer and the metal connecting and hanging hardware we still predicted that the frame would weigh approximately 2,000 pounds. (The weight of the finished frame with the crest is about 1,400 pounds.) To determine the quantity of gold leaf we would need to gild the frame we estimated the smooth surface area (including the crest and corner shields) at 250 square feet. Because a carved or cast surface, particularly one with high relief, requires additional gold leaf, we doubled the area. Even so, our initial estimate—7,500 leaves of gold—was low; the finished frame used 12,500 leaves.

Creating the monumental frame required four years of close collaboration between our staff and the staff of the Metropolitan’s American Wing. We wanted to be certain that each detail of the frame was carefully scrutinized for accuracy and authenticity. In order to accommodate the evolving frame alongside our other regular projects we developed a special approach to storing it as it was constructed. The only space in our studio that was large enough was near the ceiling, so we designed three platforms, two 3 by 8 feet and one 3 by 16, that could be raised and lowered and that would be strong enough to support the considerable weight.

We carefully considered the structural specifications of all the materials before building the platforms, each of which was supported by two two-ton chain hoists as well as two redundant safety straps.

Consulting the enlargements of details from the historical Brady photographs and photographs of period objects from the New-York Historical Society, we began to make models of the crest and its details. These small models helped us resolve spatial relationships such as how much the eagle should tilt forward to be seen correctly from below and the depth of the relief in the crest. We first carved an 18-inch-wide model of the entire crest (fig. 36). Next we created a 22-inch-high model of the eagle alone in the proportions and style typical of carving from the mid-nineteenth century (fig. 37). We partially gilded the model, basing the color and patina of the gilding on a remarkably well preserved American frame of the 1850s in our collection. The Museum curators reviewed all of our models and offered suggestions for making the frame as historically accurate as possible. Judging by the sheer size and weight of the original frame, *Washington Crossing the Delaware* was clearly intended to have a permanent home as a monument to a nation’s most honored hero. As we crafted our replica we began to feel toward it the same awe and reverence that must have greeted the painting’s first unveiling.



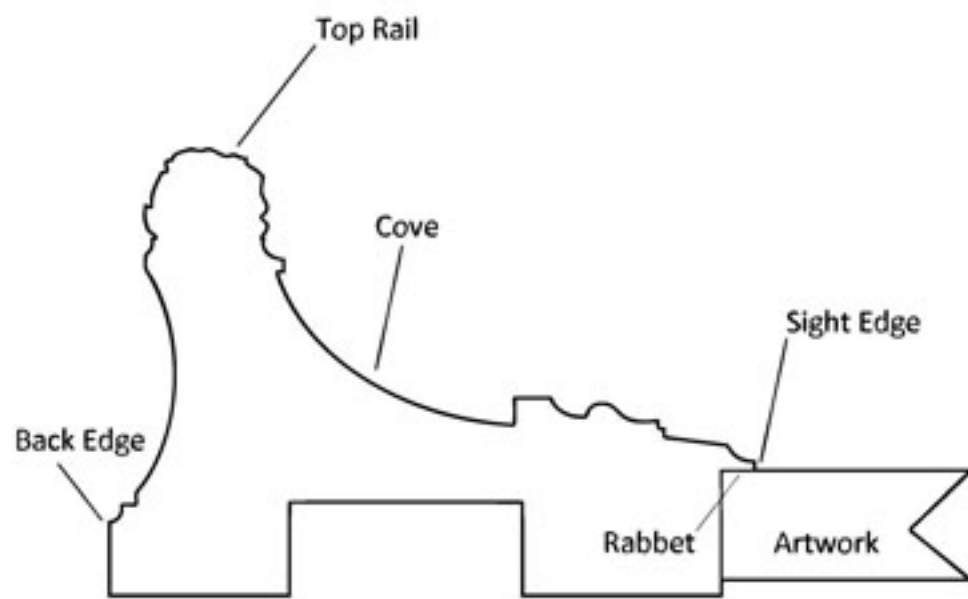


36. Small maquette of the crest for the new frame. The model was 18 inches wide.



37. Small model (22 inches high) of the eagle for the crest, partially gilded





The two-dimensional calculations we had made gave us a good idea of how the frame would appear when viewed from the front, but we needed to account for its depth as well. Again, we began with a drawing, using a profile from a similar frame in our collection as a model and adjusting it to a width of 13 inches to accommodate the actual depth of the Leutze painting on its stretcher. Once we were satisfied with our finished profile we shaped enough wood to make a full-size 4-by-4-foot corner of the molding (figs. 38–40), not only to verify that our profile was accurate but also to work out the complexities of how the frame would be joined. To make the corner a true sample, we also made full-scale carvings of the acanthus-leaf motif near the sight edge and the leaf-and-berry ornament on the top rail, both of which are variations of popular embellishments on American frames of the mid-nineteenth century.

Because the margin of error when translating an image measuring less than an inch to a finished product more than a foot wide is so great, throughout the construction process we referred continually to Brady’s photographs of the original frame. When we did this with our corner sample, we could see that the cove section (the recessed area) was too narrow and too shallow by a quarter inch. As it was, the star and tendril ornaments on the cove would be cramped, and the overall proportions seemed to lack grace. We made the necessary adjustments and compared the corner again to the photographs. Satisfied that all was now well, we were ready to begin the construction of the final molding.

The curators overseeing the project approved the sample molding, but after discussions with them we chose an alternate method for fabricating the two primary ornaments. We had offered to carve all of the ornaments in wood, which would not have been excessive for such an important frame. On nearly all American frames of the nineteenth century, however, the decorative ornaments were molded of composition, or “compo” as it is usually called, and then applied to the wood frame. Compo is a combination of chalk, hide glue, and linseed

38–40. Final profile drawing of the new frame and the full-size sample (4 by 4 feet) of the corner of the molding



oil formed into a pliable putty. The compo is pressed into intricately reverse-carved wood molds and then transferred to the frame. (Today we sometimes use different materials, such as silicone, to make casts of the desired ornaments.) Once dry, the compo becomes hard and can be treated just as if it is carved wood. Hand carving inevitably produces variations throughout the work, however carefully a carver attempts to be faithful to a specific design. In contrast, casts are absolutely faithful to their mold. If the entire frame was carved it would take longer to finish the project, because for a unified effect the work would have to be done by a single carver. If the ornaments were cast more people could be employed and we could finish the project faster, though the total number of man hours would be about the same.

Ultimately the curators decided that the ornaments would be cast and the crest and corner shields hand carved. With this signal to go ahead we began creating molds for the final castings. The ornaments carved in wood for the sample corner had been only a foot long, and we needed five-foot molds for the frame. Silicone molds were made of our one-foot carved wood sections and then each was cast five times. The five sections were then joined together, and the seams where the pieces met were carefully sanded and recarved for fluency. New molds were then made of these extended sections (see [fig. 41](#)).

The cast of the leaf and berry at the top of the frame required special treatment due to its size. It is roughly a cylinder 2 ½ inches in diameter, and we knew from experience that casts this thick dry slowly and are likely to crack from internal stresses created by the curing process. By embedding a wooden dowel with a diameter of 1 ¾ inches in each segment of casting, we forced the casting material to a thickness that would dry more quickly and evenly and with less internal tension. The wooden core had an additional benefit: it provided a solid material through which we could secure the ornament to the frame with screws. The thick cast ornaments on nineteenth-century frames were often constructed this way.

Throughout the process we had been giving much thought to the best way to join the frame. A frame of such monumental size and weight would have to be transported in sections and assembled on site, without glue at the corner miters or in the attachment of the crest. Fortunately, the profile of the frame created very stable crossmembers that structurally resemble I beams. The decorative shields at the corners, which span the miters and are bolted to the adjoining sides, serve as gussets ([fig. 42](#)). Very large frames are often assembled with lag bolts, but repeated assembly and disassembly can strip the bolts' woodscrew threads and render them ineffective. Our solution was to use machine bolts that meet metal inserts securely embedded in each of the adjoining sides. At each corner two machine bolts (hidden by wooden plugs) go



41. Five-foot mold for the ornament on the crossmembers of the frame {fix}





42. One of the corner shields through-bolted to the frame {fix}

lifesize photograph of the crest a drawing with accurate proportions was made. The drawing was then reworked to clarify details and to determine the exact position of the letters on the ribbon across the bottom. Measurements were then transferred directly from the drawing onto large blocks of wood shaped to approximate the primary structure of the crest and its decorative elements so that each could be fully realized with precise carving (see [fig. 43](#)).

The unfurled ribbon across the bottom of the crest presented its own challenge. Carving wood to simulate fabric that appears to flow and fold with natural ease is extremely difficult. To aid the carver, pieces of stiff cloth were cut to the full size of the ribbon and dipped in plaster. The cloth was then carefully draped and suspended to imitate the folds visible in the 1864 photograph. Once dry this became a valuable three-dimensional reference that served as the basis for a carved sample of the banner. We could not decipher the typeface that had been used for the text on the banner; after exploring several options we settled on a font called Bookman Old Style, in bold and all in capital letters ([fig. 44](#)). The eagle was carved separately and then affixed to the rest of the crest ([figs. 45–48](#)). Even though Felix Teran had already created the 22-inch model, seeing the majestic eagle emerge fully formed from static blocks of wood was breathtaking. The way the talons grip the shield, the sweep of the wings showing every delicate feather, and even the tongue in the bird's open beak are truly awe-inspiring.

Once the crest was complete, we affixed special metal brackets to its back that extend down to fit into reciprocal spaces at the back of the top center section of the frame. When the frame was assembled in the gallery, the crest was lowered down into place and secured (see [fig. 56](#)).

The four round ornaments at the corners of the frame were a vexing mystery. The photographs were no help: The precise shape of the ornaments and their decorative embellishments looked different from different angles, and though we could make out what looked like text, there seemed to have been a different word on each corner ([figs. 49, 50](#)). We finally decided that the round objects were shields of some sort with decorative swirls at the outer edges. We made a lifesize drawing and sent it to the Museum. The curators asked us to make the ornaments less

through the side of the frame, and two more bolts thread first through a 16-inch metal corner bracket on the back of the frame, then through the frame itself, and finally into the corner shields. This construction method is called through-bolting. As another precaution, a second metal bracket set perpendicular to the first was mortised into the rabbet, or rebate, the recessed area beneath the sight edge in which the painting rests.

As our woodworkers were constructing the frame our master carver was creating the crest utilizing a full-scale blowup of the Brady photograph. The computerized enlargement was divided into sections small enough to print and the printed sections reassembled. From the resulting





43. Each decorative element of the crest was carved separately from a block of wood {fix}

44. Detail of the banner on the crest before it was gilded





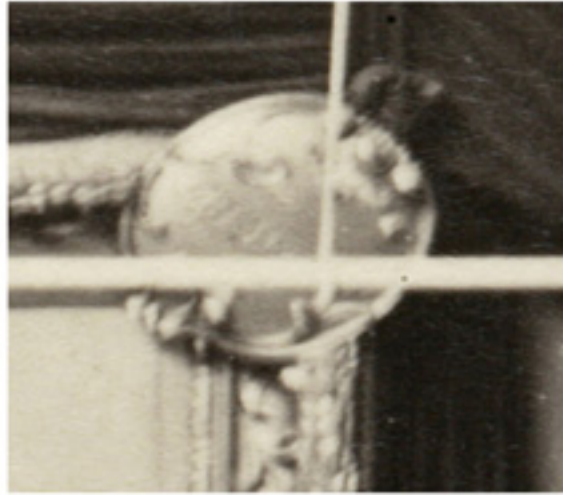
45-47. Master carver Felix Teran carving the eagle for the crest



49. The finished crest



49–51. Blowups of the two of the corner shields in the 1864 photographs and, at right, one of the corner shields for the new frame before it was gilded



52. Gilding and burnishing the new frame





round and more apple-shaped and the carving more florid and Rococo, with articulated veins and frilled edges, providing images of mid-nineteenth-century furniture with similar flourishes. As for the words, after considering “just,” “sincere,” “humane,” “dignified,” and other possibilities from Henry Lee’s funeral oration, the curators decided to err on the side of restraint. In the end we created four shields with a convex surface and lush, undulant flourishes around the edges (fig. 51). Happily, they look quite beautiful and appropriate without any additional embellishment.

Once all the components of the frame had been molded or carved, they were gilded (fig. 52). To determine the best finish we consulted other period frames in our inventory, but because we decided that as a trophy or a shrine to patriotism the frame would have been bright, we aimed for a much livelier appearance than our initial studies had indicated. Then too, because of its size the Leutze frame would not have been handled often, and it would have retained a dramatic crispness, darker in the recesses but bright overall. (A smaller frame on a painting of conventional size becomes darker on the highpoints of its form through handling and age.) The relief of the carving of the crest was emphasized, not only because it is the most sculptural element of the frame but also because installed in the gallery it would be nearly twenty feet off the ground. Seeing the completed crest fully gilded was exhilarating. Fourteen feet across and rich in detail, it perfectly reflects the drama of Washington’s crossing.

In late spring of 2011, the frame was at last complete. It was delivered in component parts for later reassembly in the gallery (figs. 53, 54). The two longest (horizontal) sections—too large to fit into an elevator—were carried in the front doors of the





53. The crest in its crate, ready to be transported to the Metropolitan, 2011



Museum and up the Grand Staircase! The finished frame was reassembled and affixed to the canvas and the framed painting hoisted into position in the new American Paintings Gallery, where it claims pride of place on the far wall of a grand skylit space (figs. 55, 56).

Of all the frame projects we have worked on, this has clearly been the most important and magnificent. From the genesis of the project, when the frame was just a question and then an idea, throughout the nearly four-year process of bringing the frame into being, every member of our staff brought his or her skill, devotion, and dedication to the task. We are honored and proud to have played a role in restoring Leutze's *Washington Crossing the Delaware* to its original glory.

54. Carrying the dismantled frame up the Grand Staircase at the Metropolitan, 2011







55–56. Installing Washington Crossing the Delaware and its new frame in the American Wing, 2011





Where the canvas ends, the art of Eli Wilner begins. From works of exceptional cultural value to purely personal treasures, quality and passion can make all the difference in how we experience artwork. Eli Wilner has the artistic vision, historical expertise and team of skilled craftspeople to make that experience something very special. It's no wonder his work is in the finest

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