

AESTHETICS COMMENTARY

by Frederick Gottemoeller



Building a major bridge over a wide and deep scenic valley is a challenge that most bridge designers would welcome. The first goal must be to place a bridge in the scene that, at the least, does not detract from the valley. The more important goal is to place a bridge that actually adds to the site's scenic quality, that becomes an asset to the site, and that fits the site so well that it looks like the bridge has always been there. The designers of the Jeremiah Morrow Bridge rose to that challenge.

Many of the positive qualities of the new bridge can be recognized by comparing it to the previous truss bridge. In most settings, and certainly in scenic ones, visual simplicity is a virtue. However, the truss superstructure is complicated, with multiple members at multiple angles to each other. Jeremiah Morrow's concrete box superstructure is a single modulated shape. The existing piers are stepped, with two columns that abruptly change thickness as they rise, connected by multiple cross struts. They call to mind tall, thin wedding cakes. Jeremiah Morrow's new piers are single tapered shapes, forked at the top. Because of this simplicity, the new bridge will not engage the eye as much as the existing bridge. The mind will be freed to engage with the scenic virtues of the site.

In a natural environment, one is surrounded by trees. Trees naturally embody the effect of the forces on them: branches are thickest at their origins and thinnest at their tips. Jeremiah Morrow's girders are thickest where the forces are the greatest—over the piers—and thinner everywhere else. Jeremiah Morrow's piers are widest where they meet the girder, then taper slightly before they head to the ground. Trees take these shapes because that uses resources as economically as possible. Jeremiah Morrow does the same, and this congruence is one source of its aesthetic appeal.

The openings at the tops of the piers are there to create some longitudinal flexibility for dealing with thermal and long-term stresses, but have the aesthetic effect of adding points of interest and a sense of lightness to the bridge. This is another of those instances when structural goals and visual goals can be served by the same feature, making for a design "twofer". The faces of the piers are divided into three vertical planes set at slightly different angles. Each plane reflects light differently. The piers are visually divided into three vertical strips of differing brightness, making the piers look thinner than they actually are.

None of the features described above could have added significant or even recognizable cost to the bridge. All are the result of careful selection of shapes and proportions for elements that had to be there anyway. Ohio has a beautiful new bridge.

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