Folding Method for “OSU Triptych No. 2”

Robert Orndorff
June 2016
Seattle

The work itself is a permanent manifestation of an ephemeral artwork, namely, one solution for a specific one-straight-cut problem. Such problems are usually stated as follows: How must one fold a paper rectangle into a flat figure such that one straight cut through all of the layers will produce a given planar straight-line graph? Here the problem has been solved with paper and then represented in acrylic. To a significant degree the work relies on transmitted and reflected light, and so it never looks the same twice. The figure (the letters "OSU") has been divided into three frames. The crease patterns for the left and right letters are pedestrian, but the crease pattern for the central letter is sublime. The short note that I am contributing to the gift exchange includes the crease pattern and a description of the folding process. The Joint Mathematics Meetings Art Exhibit was an international juried event. Three awards were given, and this work received one of them.

Fig. 1. “OSU Triptych No. 2.” 2015. Acrylic.

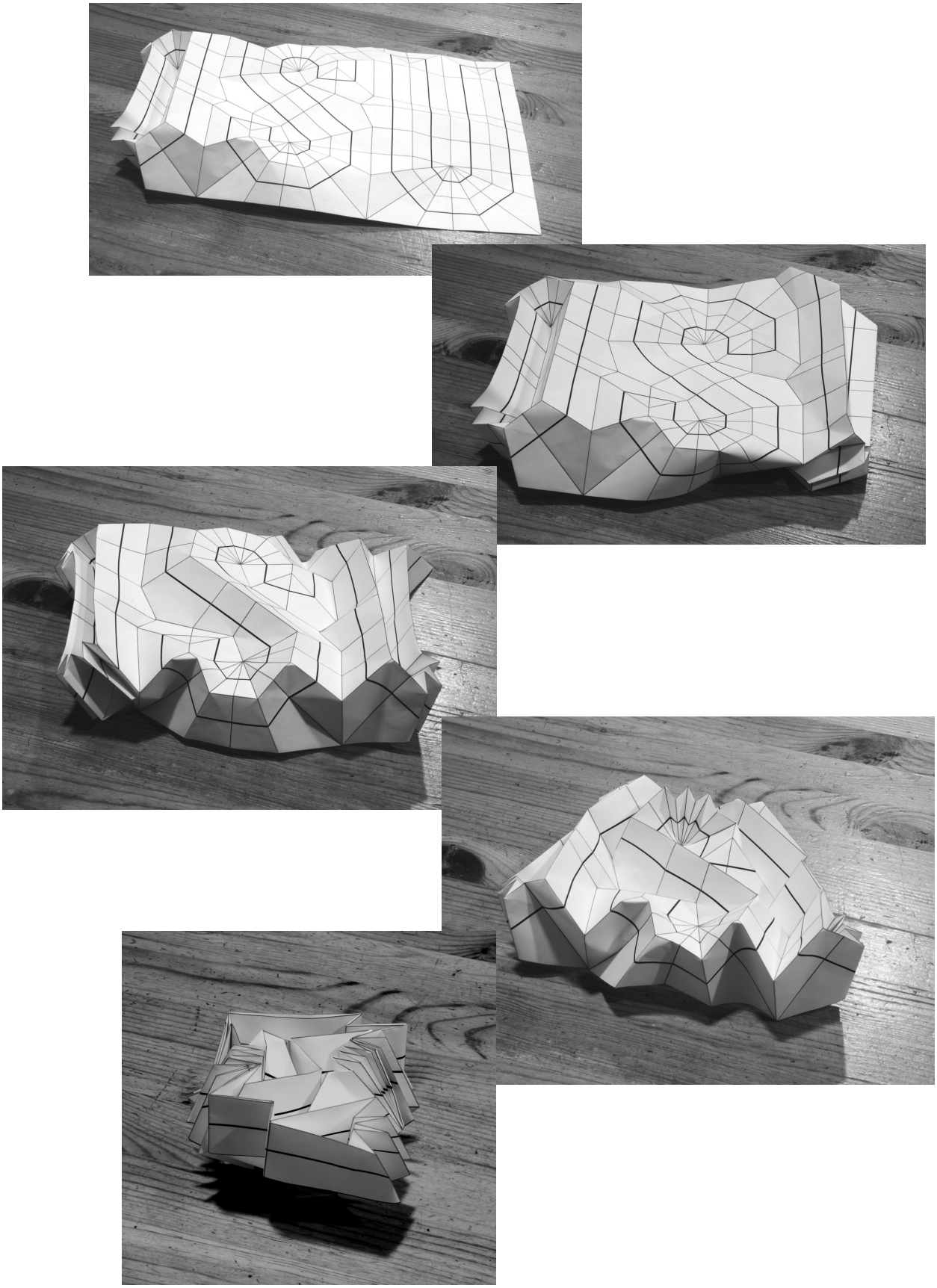

Fig. 2. Folding method for “OSU Triptych No. 2.”

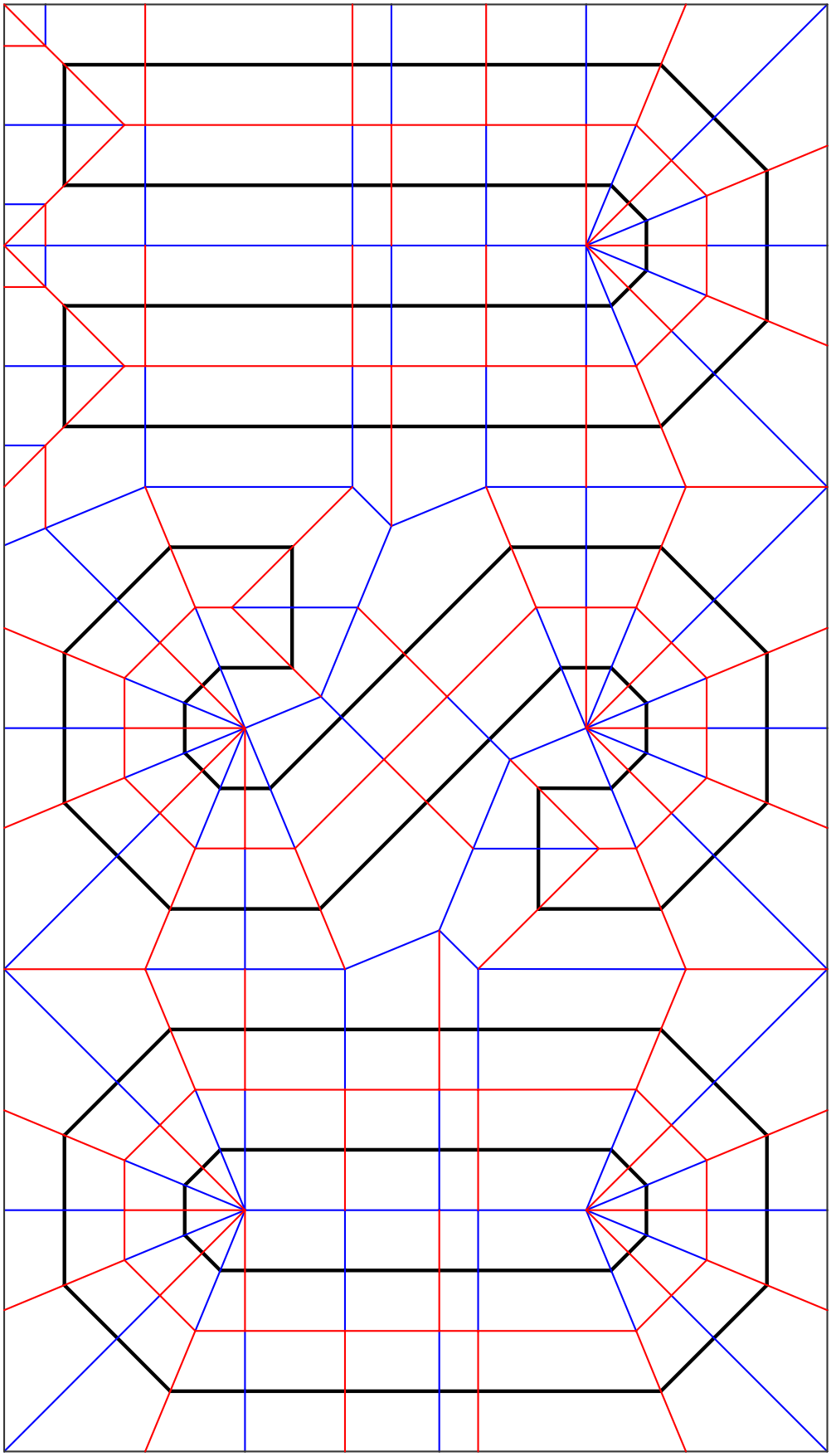

Fig. 3. Crease pattern for “OSU Triptych No. 2.” The red lines indicate mountain folds (convex); the blue lines, valley folds (concave). The bold black lines represent the figure that the single straight cut produces. There is one small error in the artwork (Fig. 1) which has been corrected here.