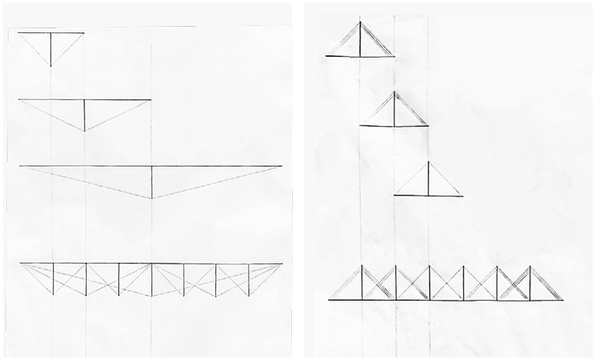
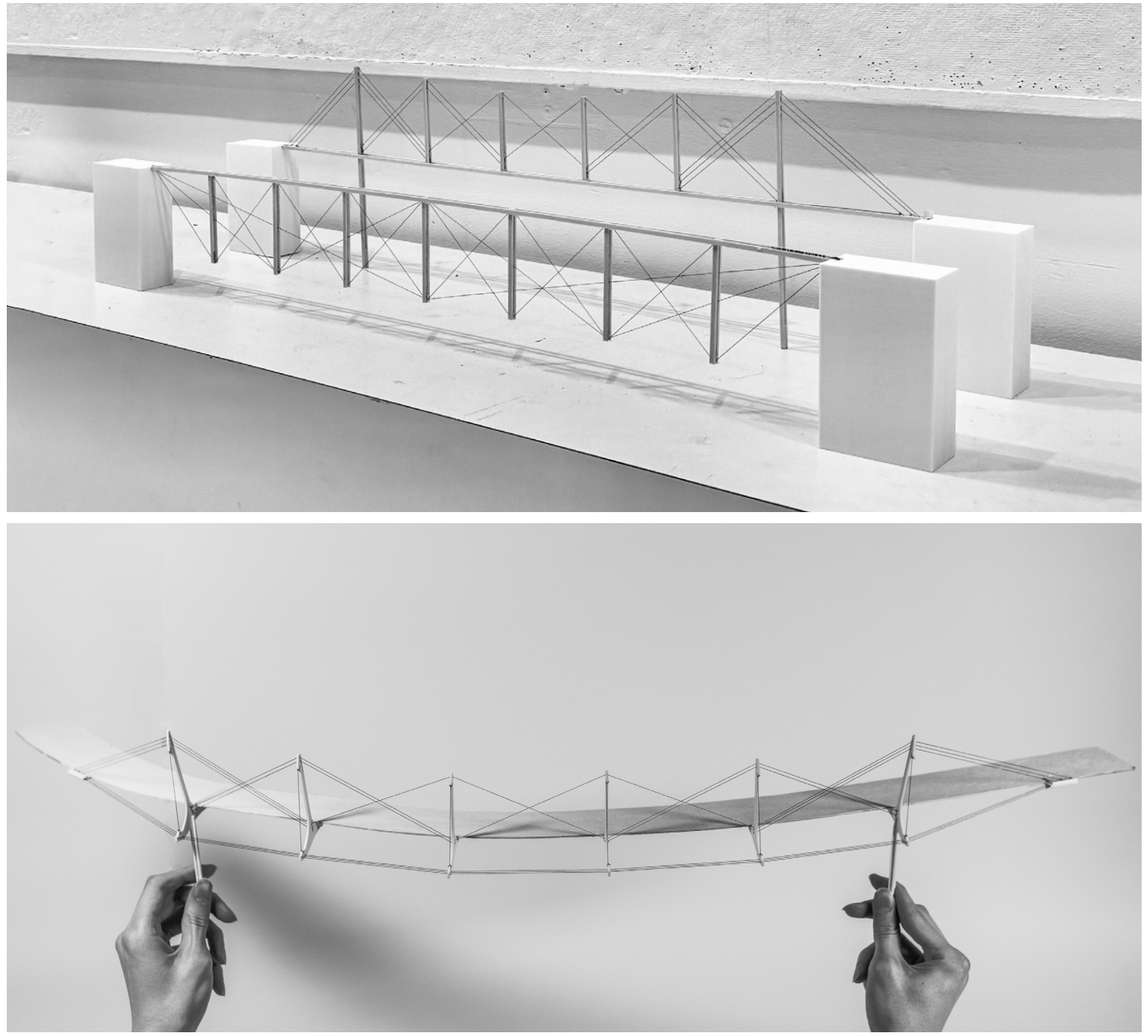
The Louisville bridge & Passerelle La Défense

-Evolution of Tensile Bridges

The Louisville bridge from 1870 was analyzed as a typical fink truss precedent, while Passerelle La Défense was the contemporary evolution of the fink truss, which introduced multi-layer systems and finally achieved a curved path spanning 90m/295ft with only two columns attaching the ground. Both bridges can be deconstructed into modules, The Fink truss has multiple lengths of modules overlapping each other while Passerelle La Défense has modules of the same length connected in sequence in which the number of cables increased according to tension load.

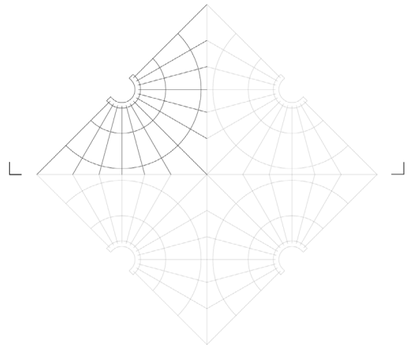


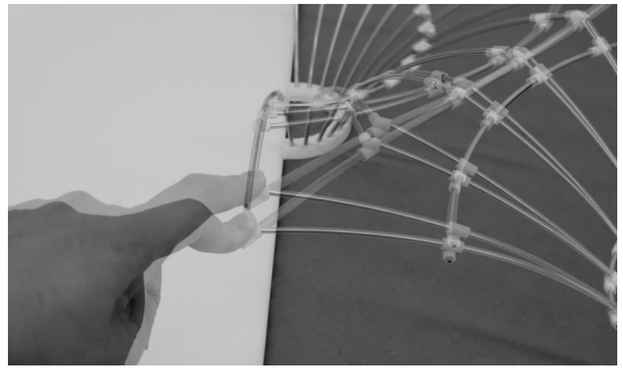


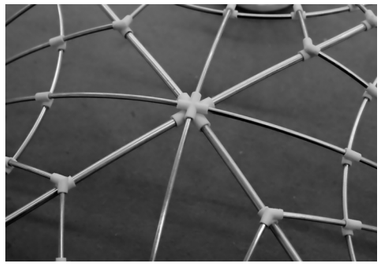
Structure II, Fall 2023; Instructor: F. Meier
Collaborator: Yudi Luo

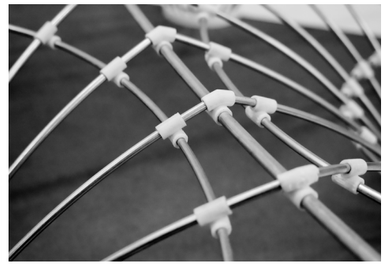
BCM Rooftop Pavilion, Toshiko Mori Architects

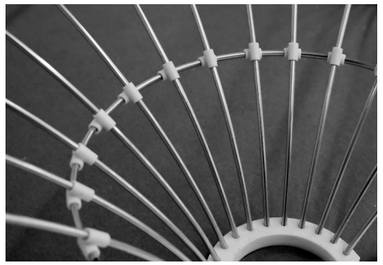
-Analysis of tension and compression

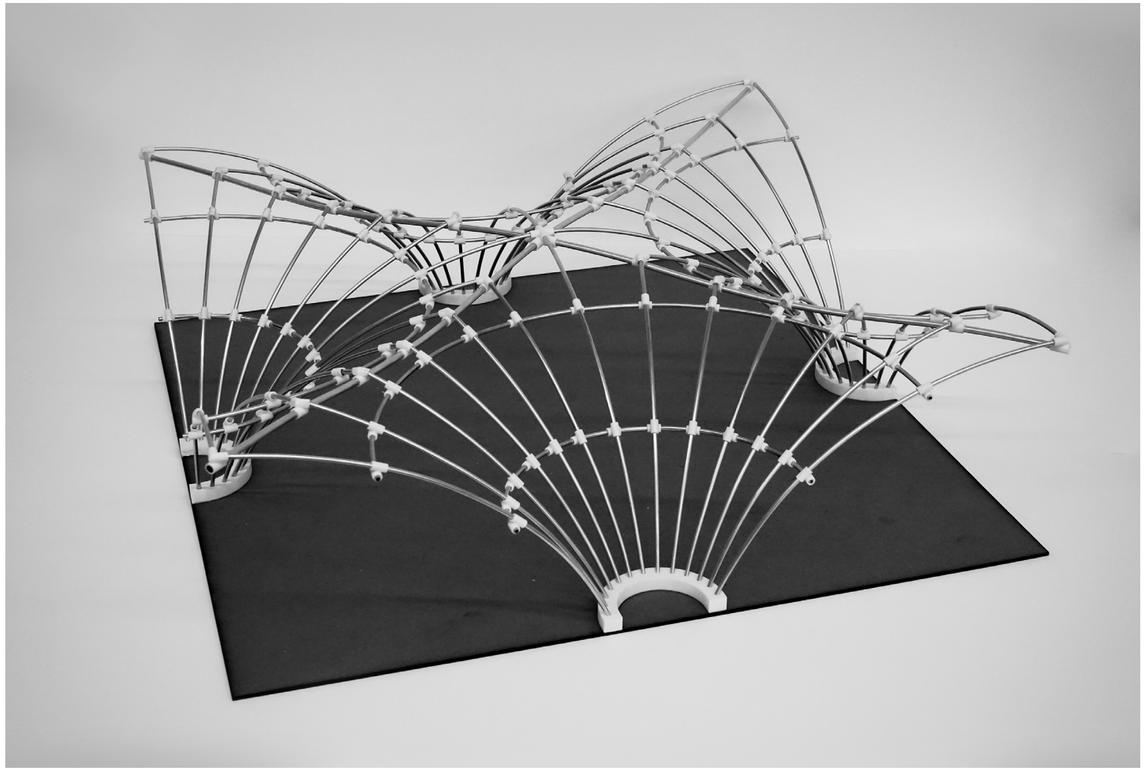












Structure I, Fall 2022; Instructor: E. O'Donell
Collaborator: Daniel Luo