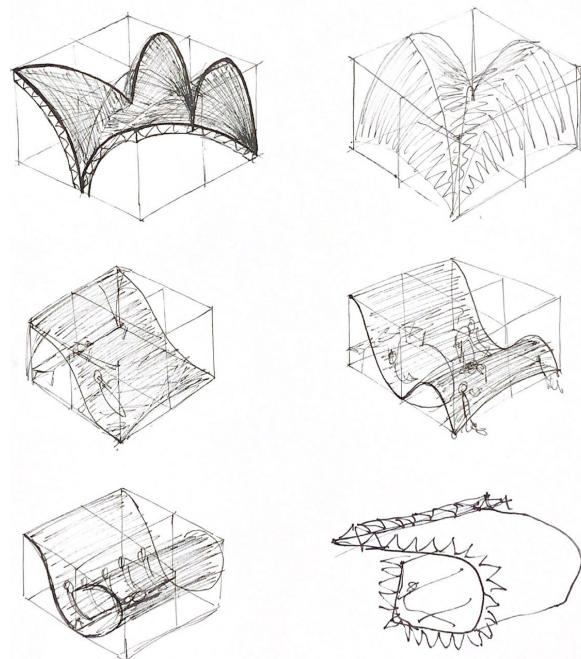
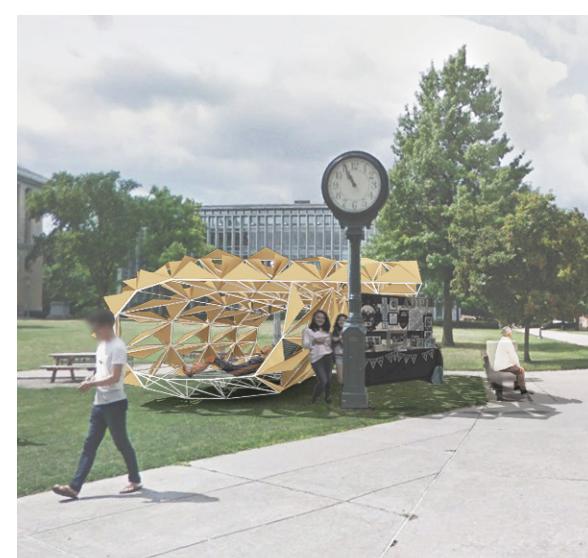
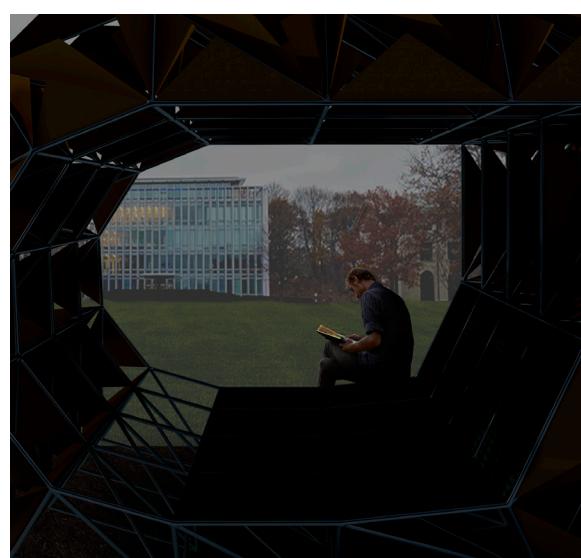


The project Σκηνή (“tent” in Greek) stems from a common ritual on the CMU campus: painting the fence. Between midnight and dawn, student organizations often paint the famous CMU fence. Sometimes more than one organization try do it at the same time; in the case of a standoff, tradition dictates that whoever stays by the fence longer wins the right to paint the fence. Members of organizations take turns keeping watch and often sleep by the fence in multi-day relays. We created a rest area and parasol that allows both for surveillance of the fence. Another key ritual of student organizations is also facilitated: tabling. Shade is provided in connection with the amount of sunlight parts of the pavilion receive allowing for a light but glare-less habitation.



The curl in the structure unifies its two functions. It also exemplifies the two different types of tent found on campus: on one side the structure an open tent allows for community connection away from the sweltering sun, on the other side a closed tent offers the seclusion needed for a quick nap between shifts watching the fence. The space frame offers a versatile bridge between the two that is both the structure of the lounge on the one side, and the shade above the tablers on the other. Altogether, the “tent” is not only responsive in its panelling system, which protects from direct sunlight, it is also responsive to the cultural needs & context of CMU.



Top: the panelling system tuned to the passage of the sun provides shade under the structure

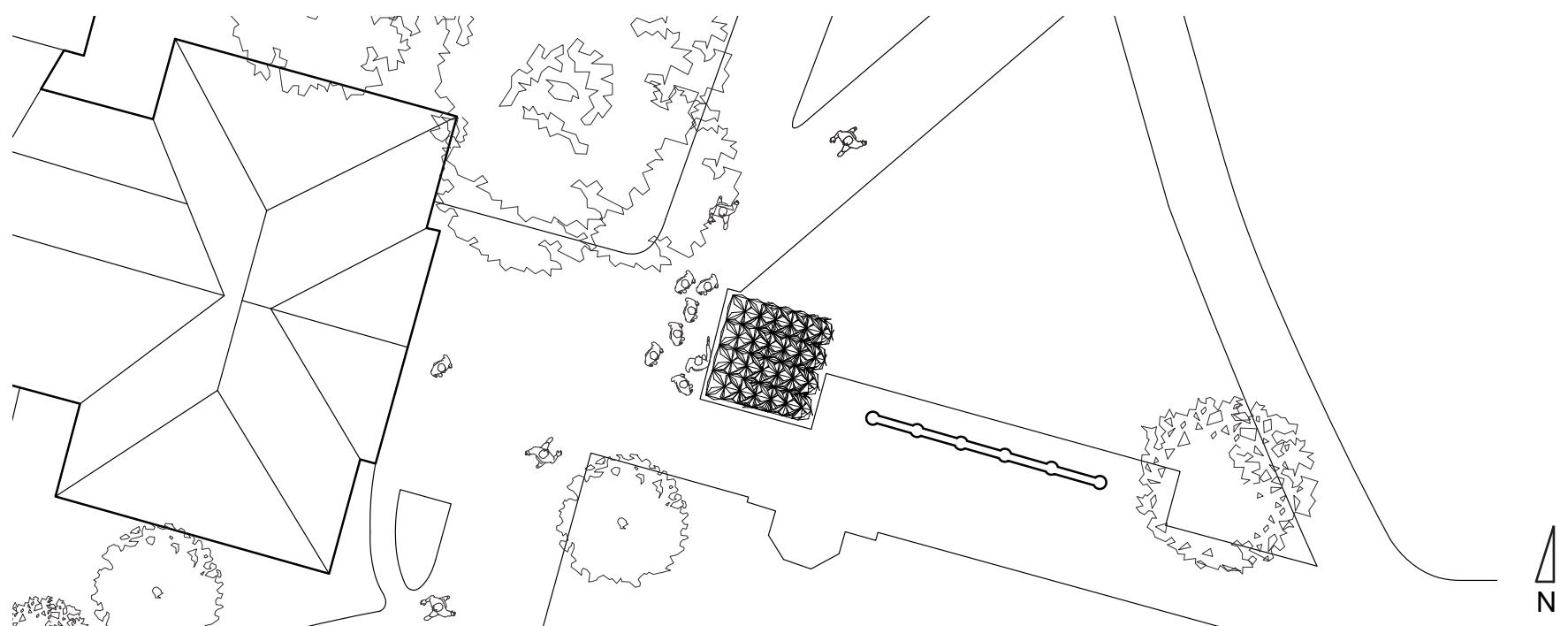
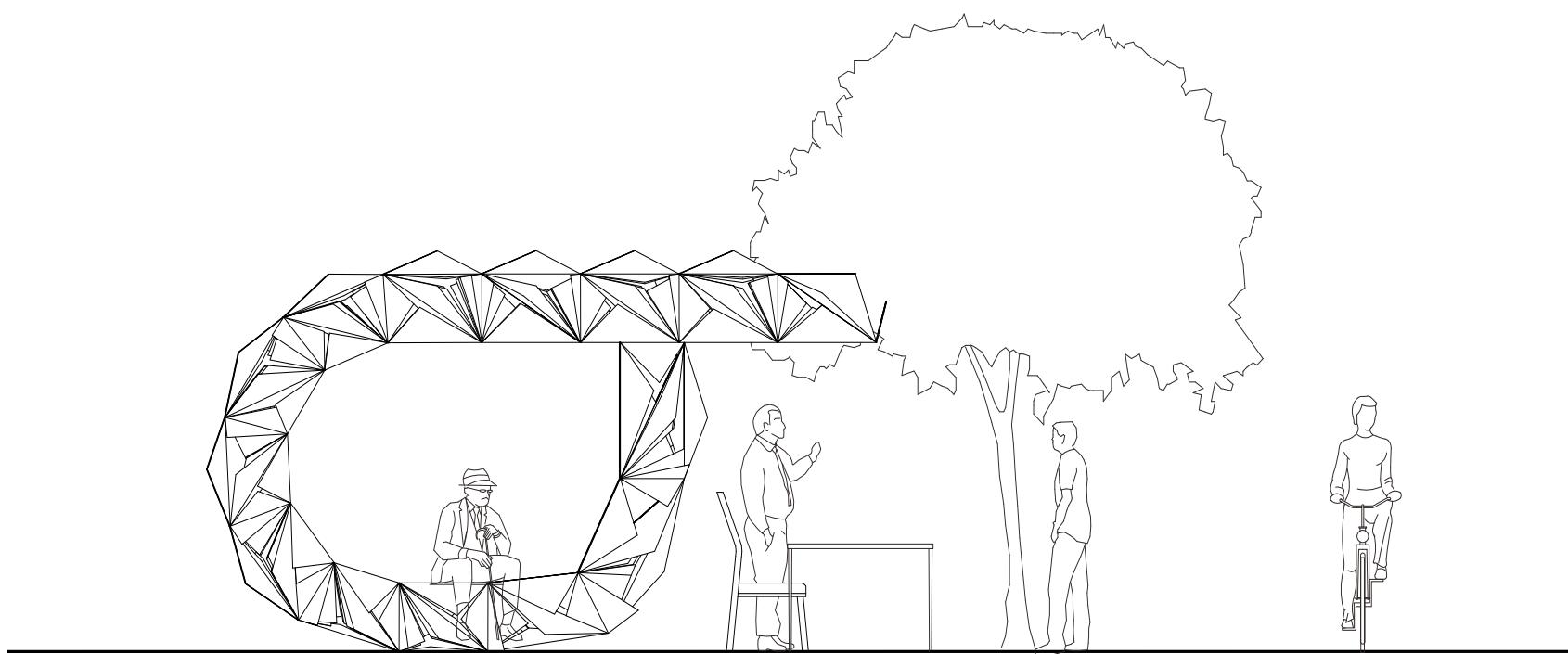
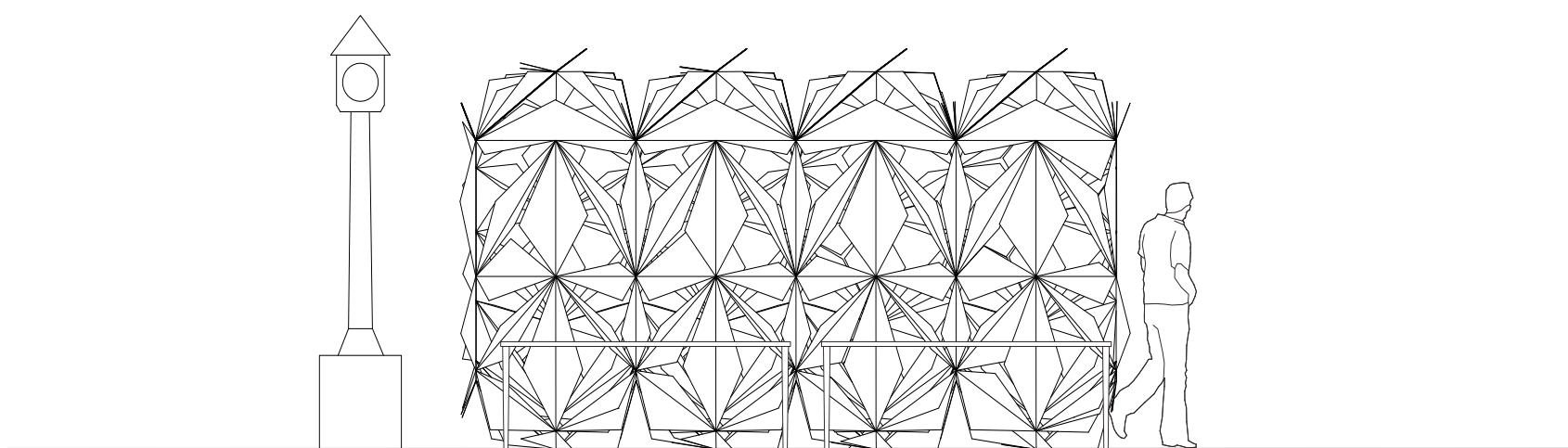
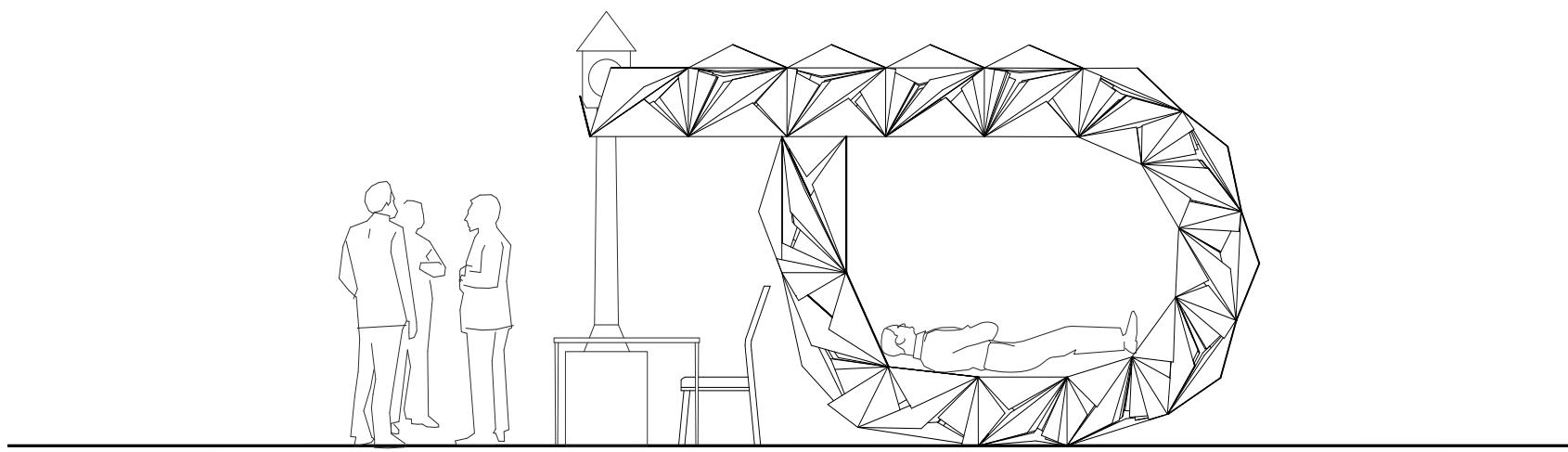
Lower Right: the “tent” is situated between the fence and Doherty Hall

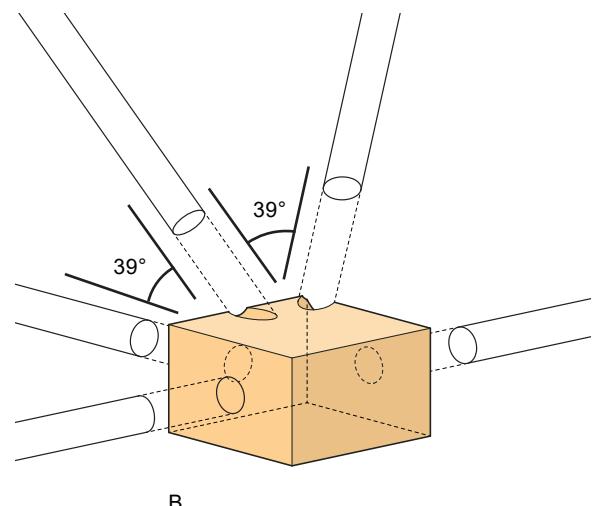
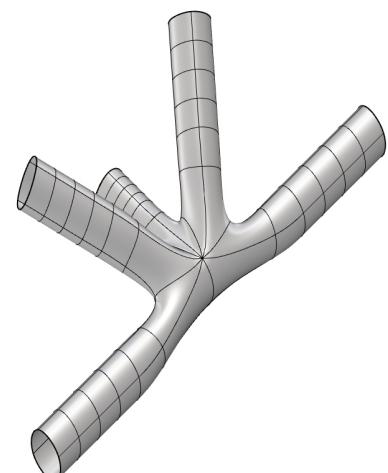
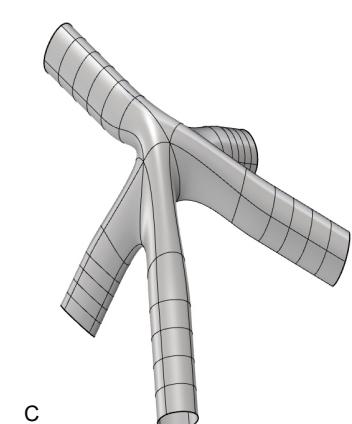
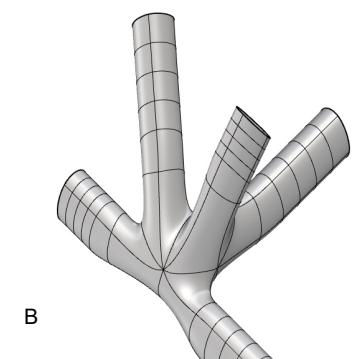
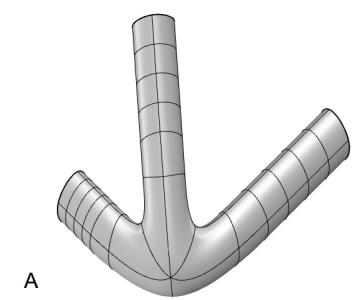
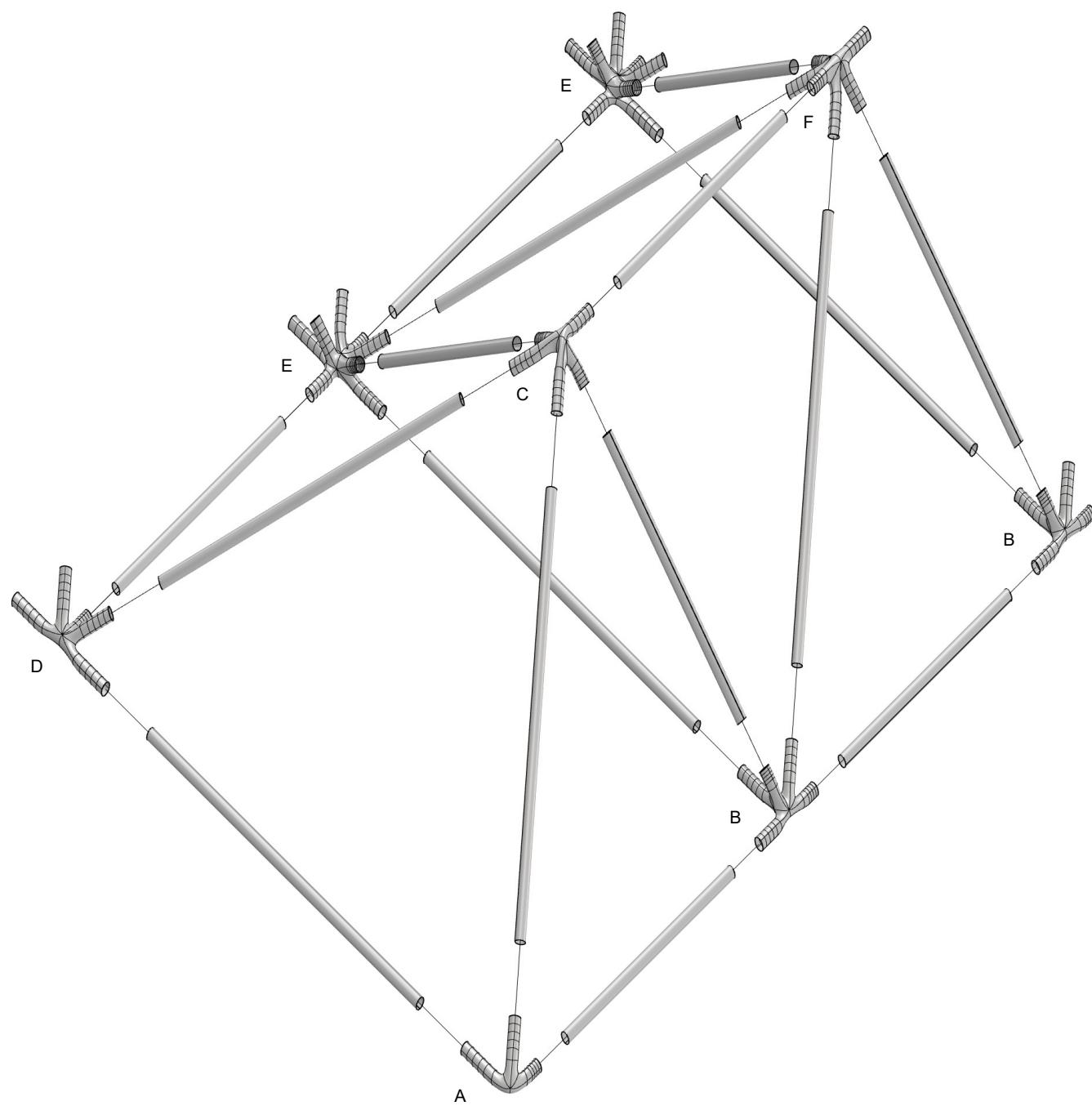
Lower Middle: tabling is facilitated within the structure

Lower Left: experience inside of the structure on a fresh morning

Left: iterative sketches showing design development and the function-related form finding that led to the curl

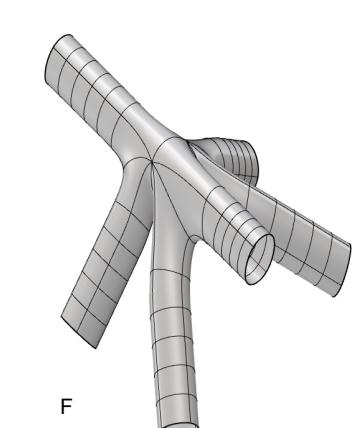
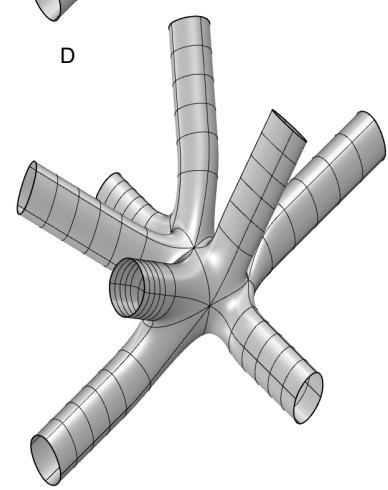
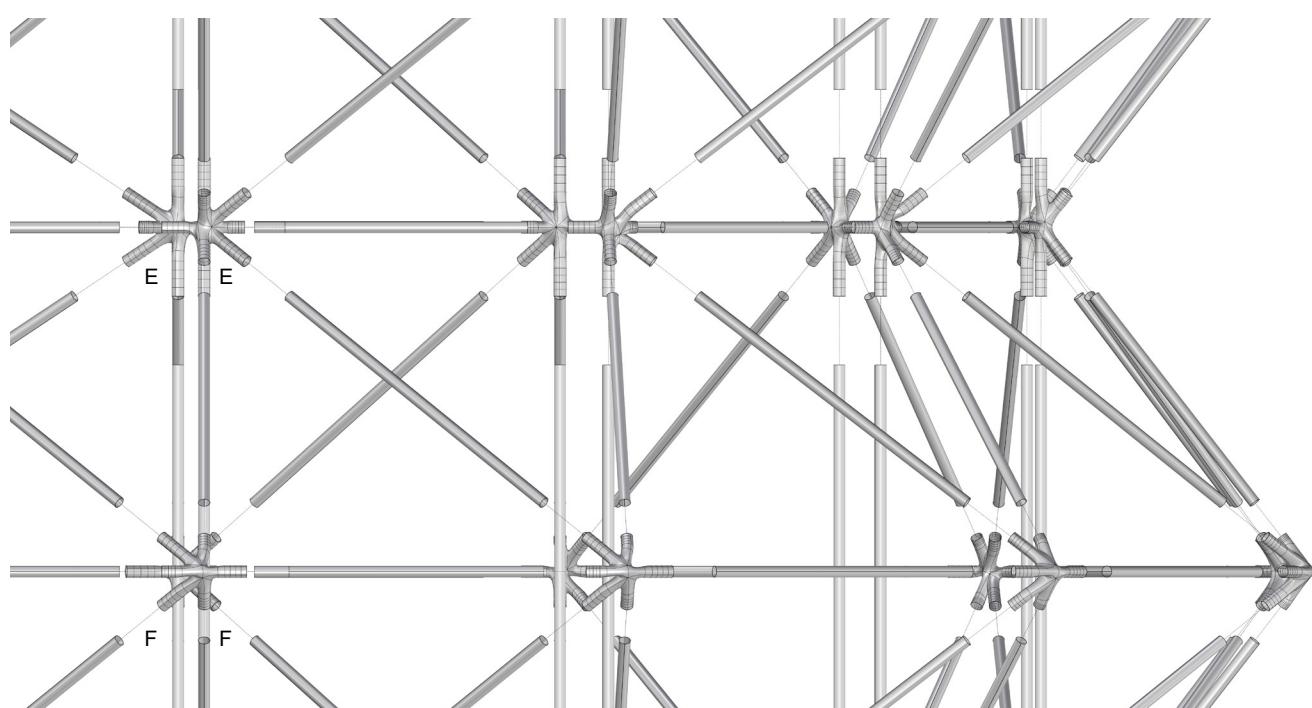






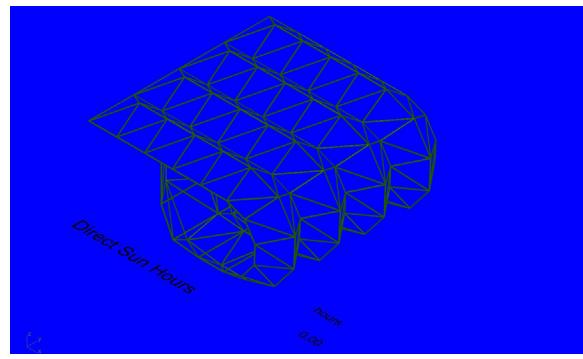
All joints in the proposal can be grouped into six families, four of which only exist to satisfy end conditions, and two of which, types E and F, serve as the joint group for the entire rest of the project. The joints within the family vary as the angles between pipes largen to wrap around the enclosed side of the project.

To the right a simple drawing of the woodblock used in M5 illustrates the angles involved for the B joint in the first module.

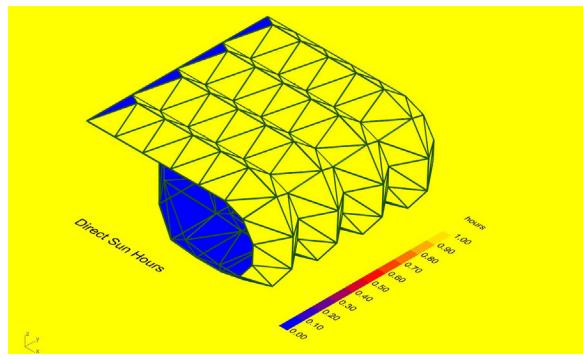


# Σκηνή Distributions

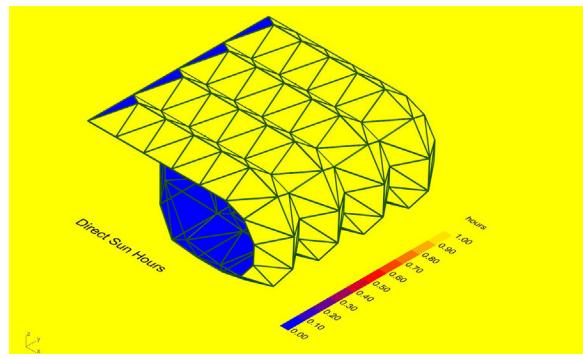
Aidan Smith, Henry von Rintelen  
Fundamentals of Computational Design, Spring 2022



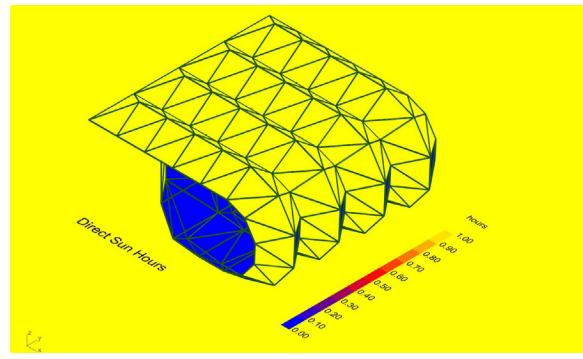
7 am



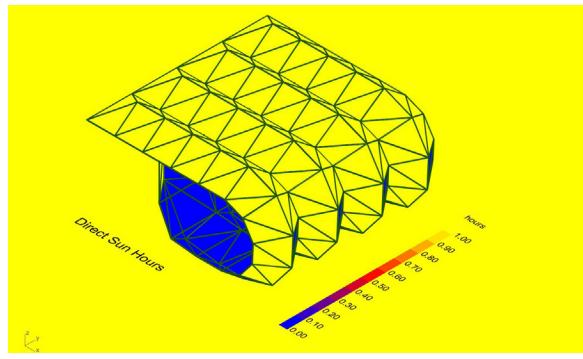
8 am



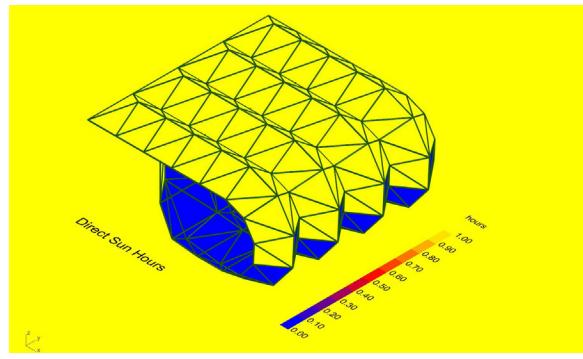
9 am



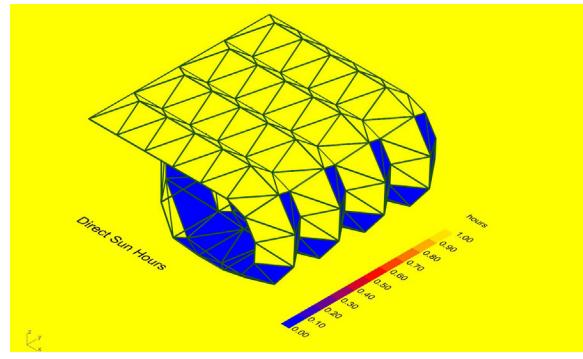
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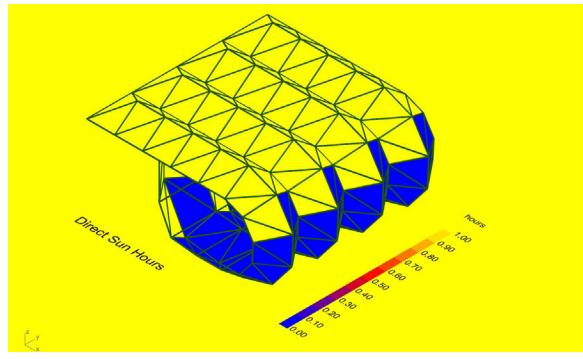
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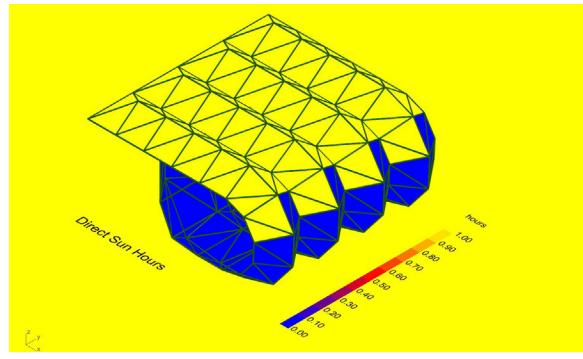
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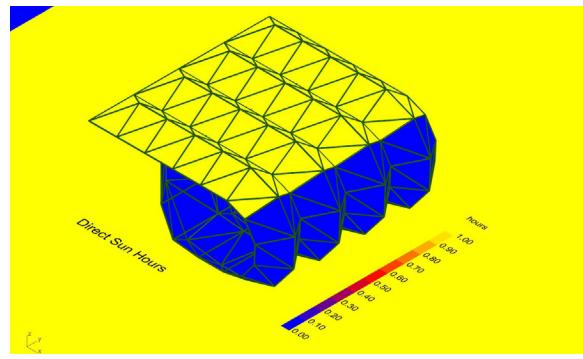
1 pm



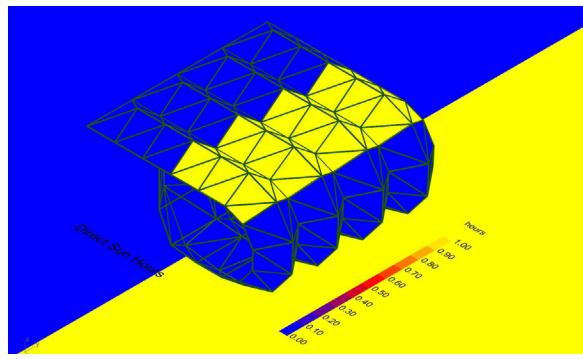
2 pm



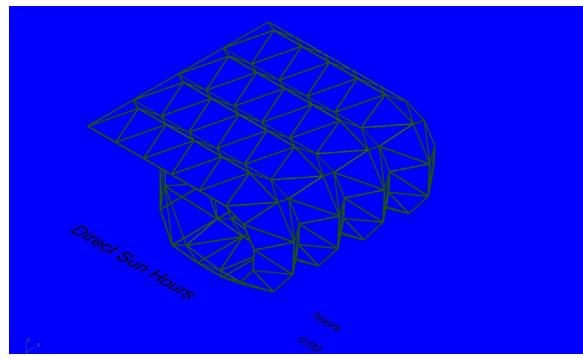
3 pm



4 pm

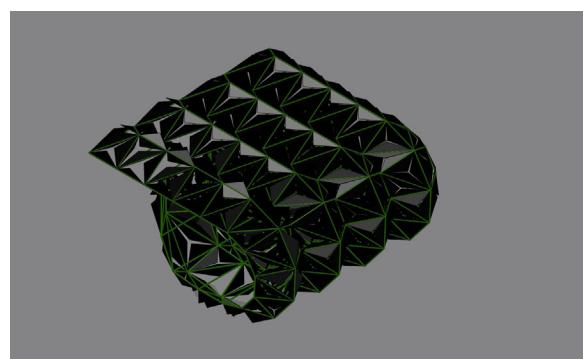


5 pm

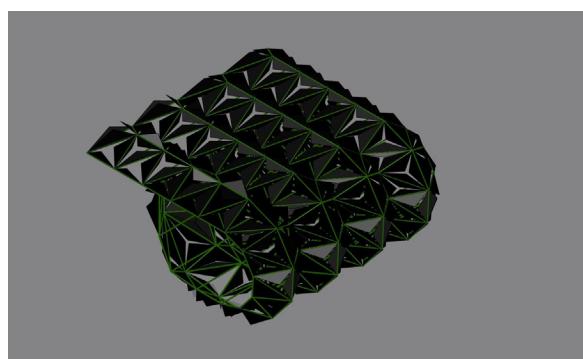


6 pm

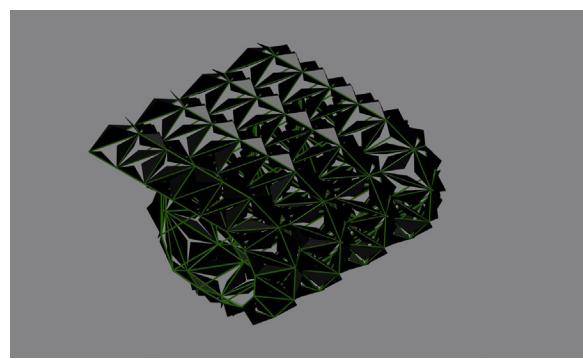
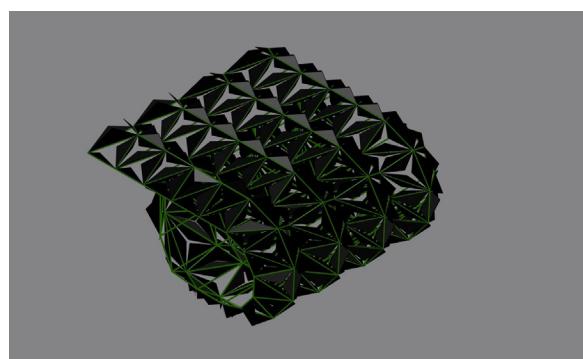
**Responsiveness:** as the provision of daylight without allowing for large amounts of glare was one of the focuses of the project, simulations were used to determine how open the panels would be on the various faces of the project. Above can be seen which panels are in shade (blue) and sun (yellow) throughout the day. The large shadow to the west in the afternoon is caused by Doherty Hall. The animation frames below show how the panels could dynamically open and close throughout the day to provide maximal amounts of shade. The panel position rendered on the first page is a formal response to the average daylight across all 24 hours of the day. The panels were not projected to be dynamic, even though it is a possible contingency. The panels in that iteration are most open towards the north, while being closed to the east, south and west.



panels closed to the east in the morning



panels partially open in the middle of the day



panels opened towards the north in the afternoon

