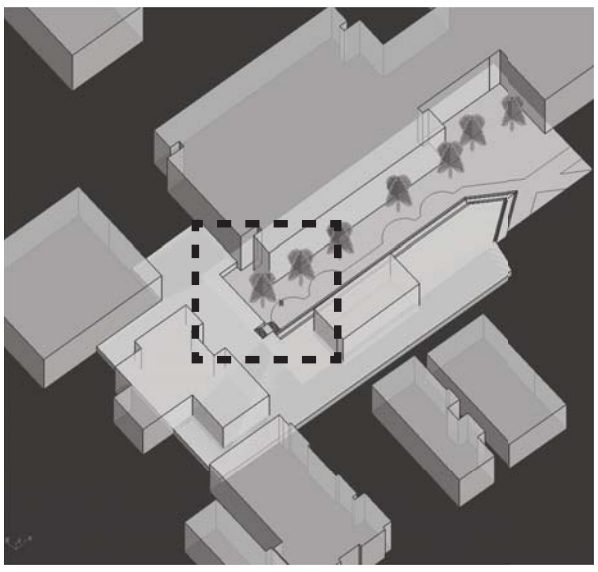
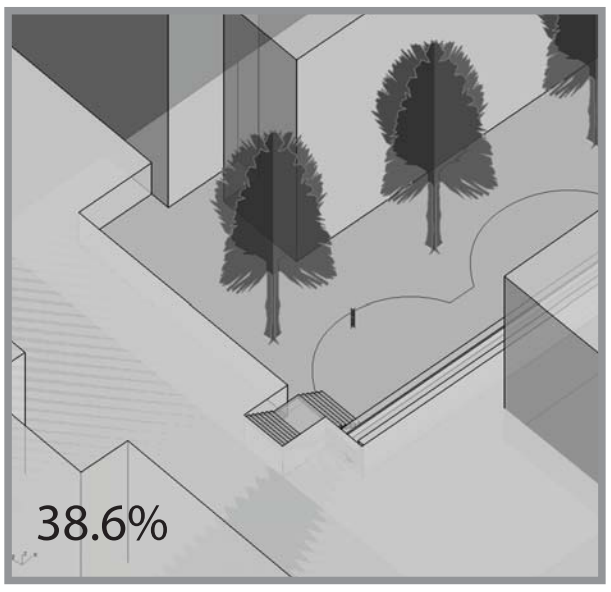
Outdoor Comfort Analysis
Elizabeth Heldridge (Team 5)

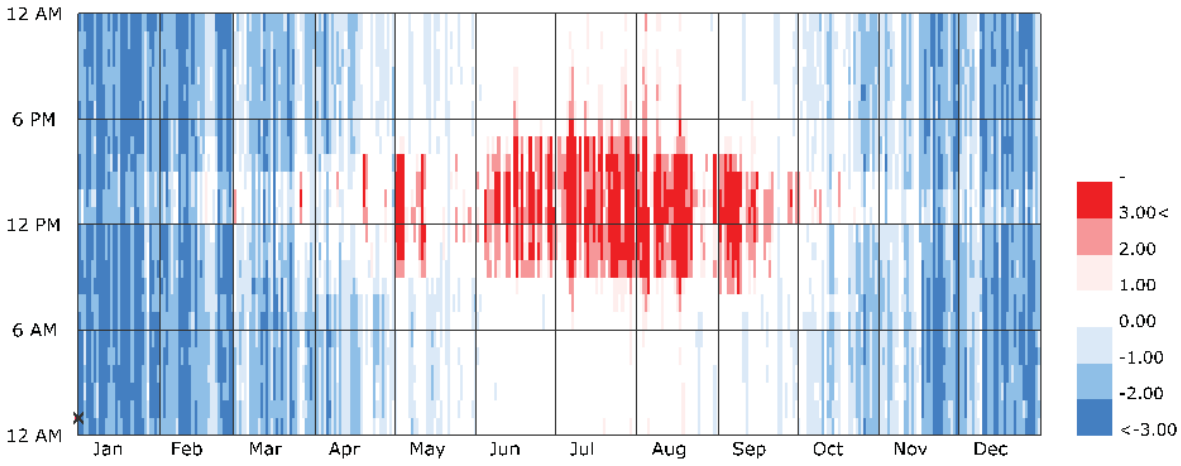
For this analysis, I chose a location in an extremely shaded area of the site. For this reason, I knew I wouldn't be able to impact the comfort by a large margin. To establish my baselines, I used the site with NO intervention (38.6%) vs enclosing the person in a sphere to find the maximum. (41.2%)

I then used milder strategies to evaluate within this range, finding two design strategies that increased by 1% each time.

My interpretation of this analysis is that the region chosen on the northern side of Van Pelt is consistently going to be uncomfortable during winter, with no intervention improving that. However, during summer, shading strategies can be employed to decrease radiation and improve comfort.

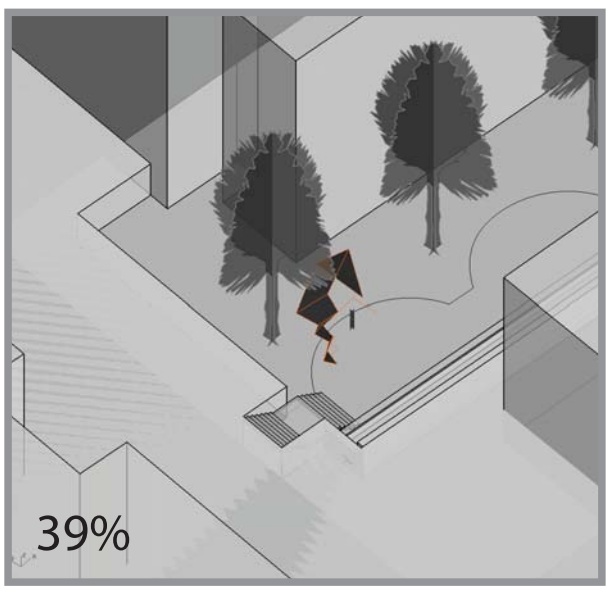


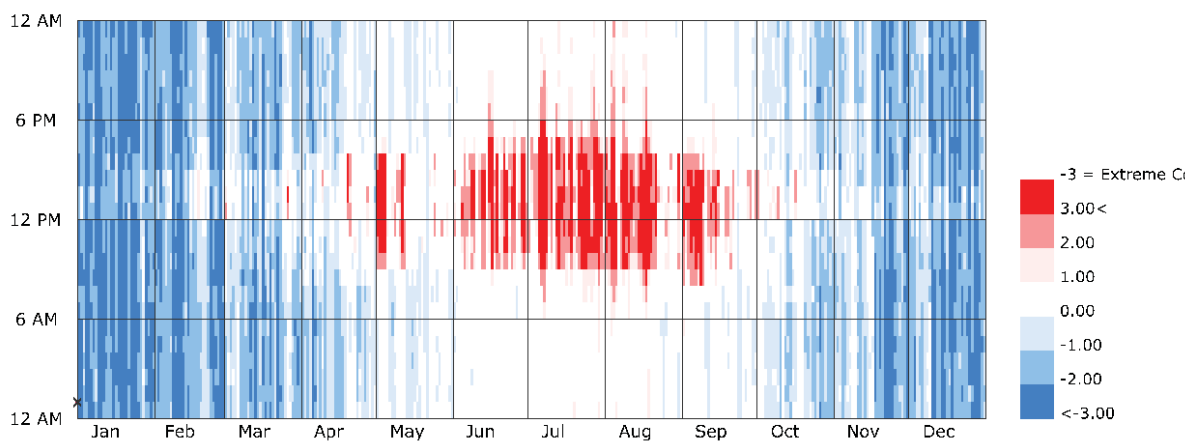




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat)
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

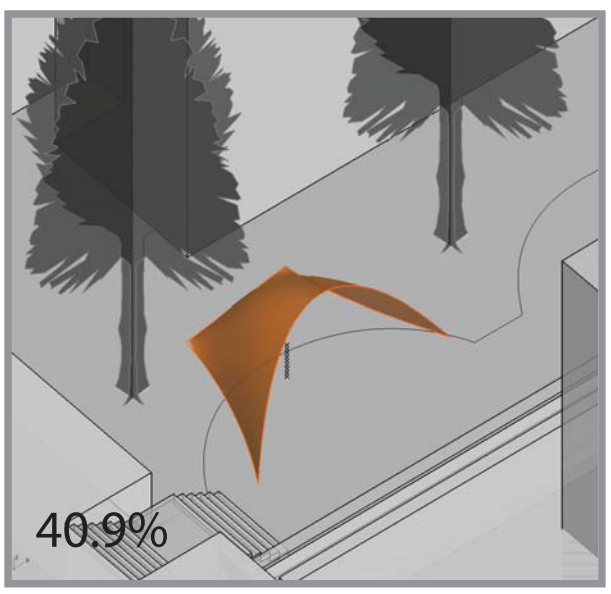
Comfortable: 38.61%; Short period comf.: 19.61%; Heat stress: 8.2%; Cold stress: 33.58%

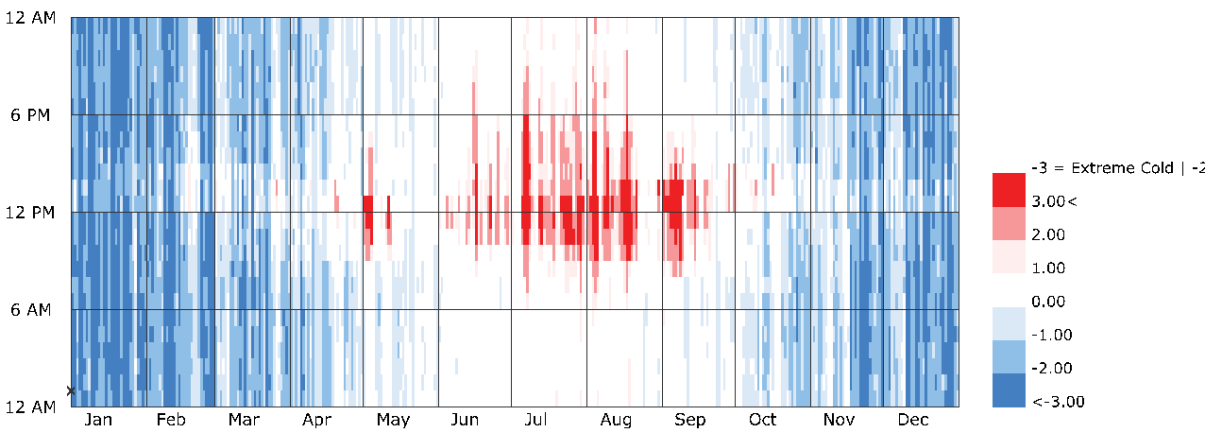




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Hea ly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

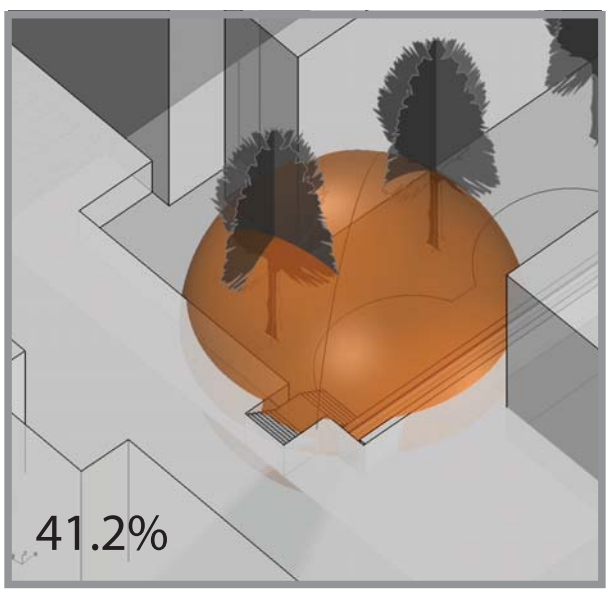
Comfortable: 39.01%; Short period comf.: 19.77%; Heat stress: 7.73%; Cold stress: 33.49%

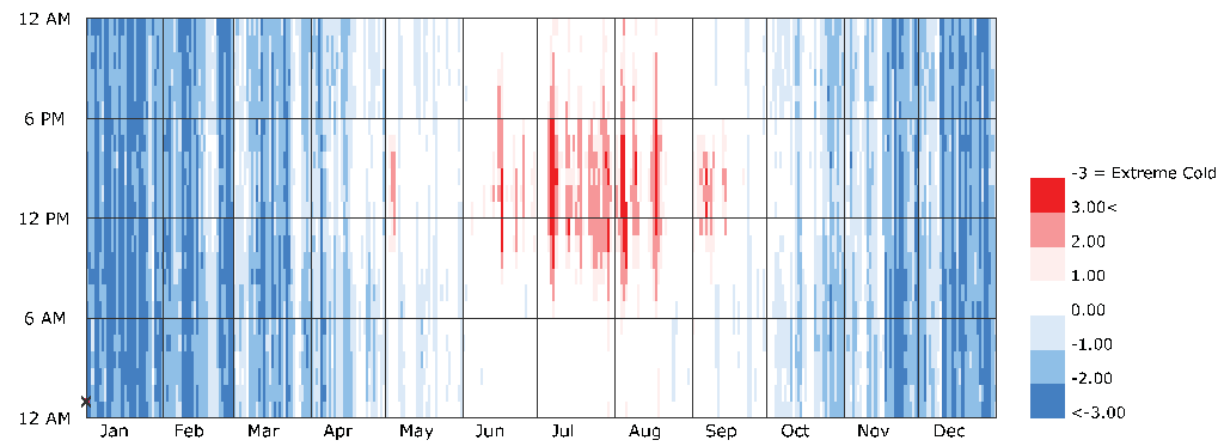




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat) - H
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

Comfortable: 40.92%; Short period comf.: 20.64%; Heat stress: 4.93%; Cold stress: 33.5%





Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat)
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

Comfortable: 41.28%; Short period comf.: 21.24%; Heat stress: 3.14%; Cold stress: 34.34%