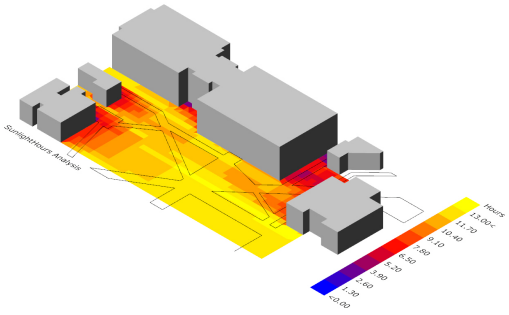
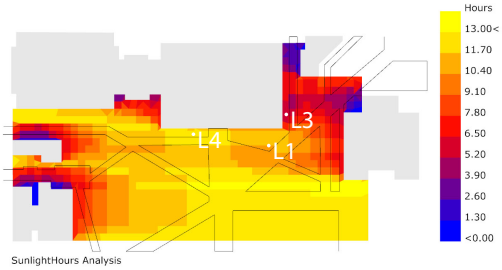
Nicole Bronola
2017 |10 | 07



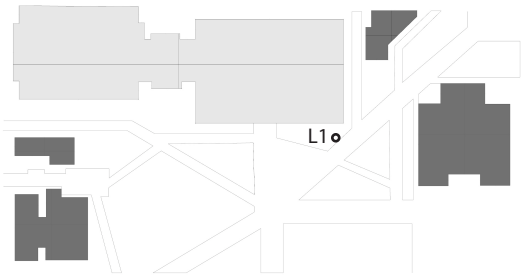


1. To find the best location, I have used the weather data comfort map for the location we specified. The data above, ranging from most to least comfort gave me possible location assumptions. After locating possible six positions(page 1 & 2below) for the seating based on the data, I run the UTCI report for each point. The assumption was based on proximity to the buildings, and context dependent factors.

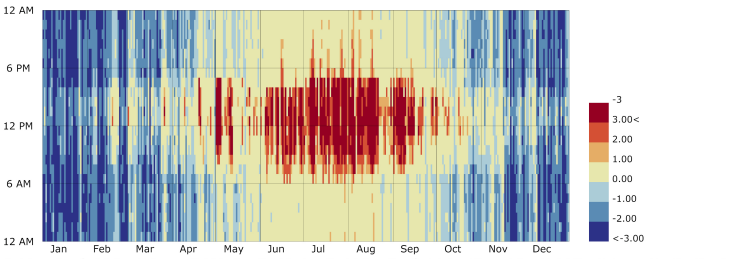
2. The best location was L3 at 39.75% and the worst was L2 at 37.74%. The difference in percentage of comfort was 2.01%.

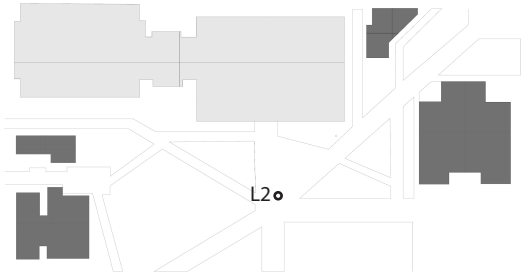
3. The effective parameters seem to be the amount of exposure on site, the amount of sunlight received, the shading given by the existing context , and the proximity to exiting context. The L position with the most comfort has achieved a significantly lower heat stress, however the cold stress remains high.

4. The main limitations of the current simulation method include the context itself. The data does not include landscape, mainly the large trees that give additional shading. Also, the wind data creates a limitation.

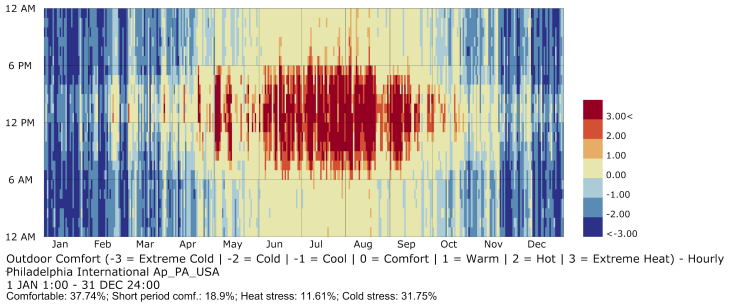


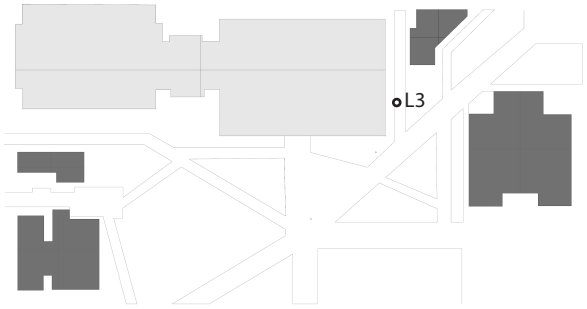
LOCATION 1: 38.46 %

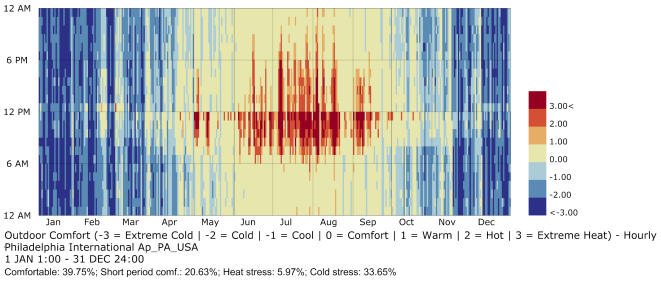




LOCATION 2: 37.74 %

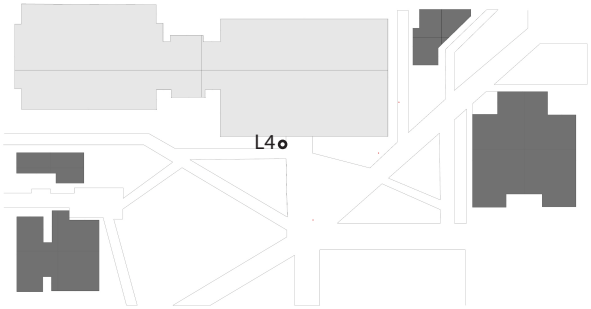


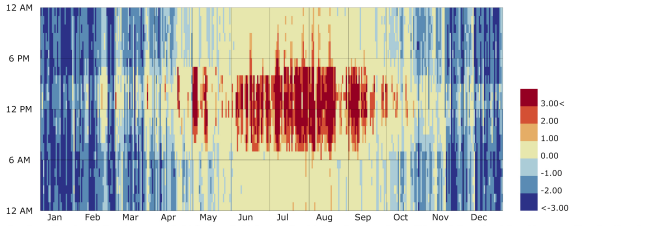




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
Comfortable: 39.75%; Short period comf.: 20.63%; Heat stress: 5.97%; Cold stress: 33.65%

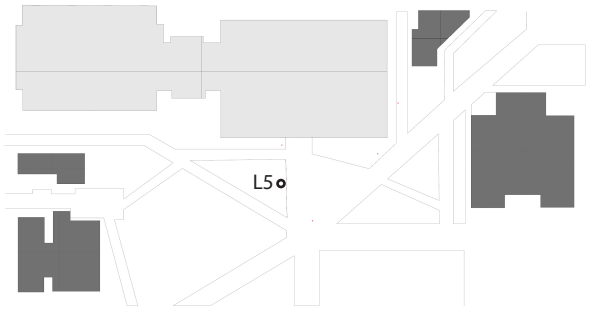
LOCATION 3: 39.75 %

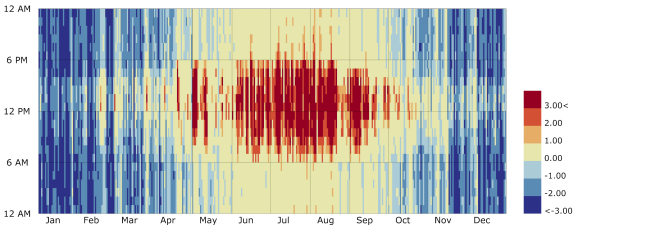




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
Comfortable: 39.2%; Short period comf.: 19.29%; Heat stress: 9.65%; Cold stress: 31.86%

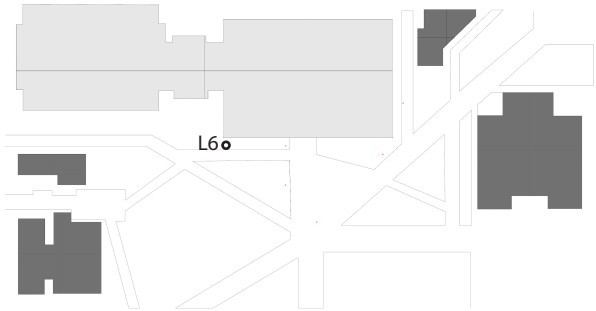
LOCATION 4: 39.2 %

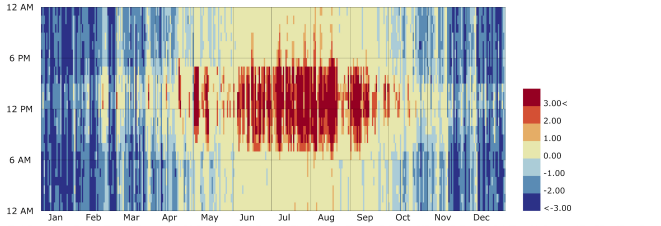




Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
Comfortable: 37.96%; Short period comf.: 19.13%; Heat stress: 11.06%; Cold stress: 31.85%

LOCATION 5: 37.96 %





Outdoor Comfort (-3 = Extreme Cold | -2 = Cold | -1 = Cool | 0 = Comfort | 1 = Warm | 2 = Hot | 3 = Extreme Heat) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
Comfortable: 38.6%; Short period comf.: 19.27%; Heat stress: 10.21%; Cold stress: 31.93%

LOCATION 6: 38.6 %