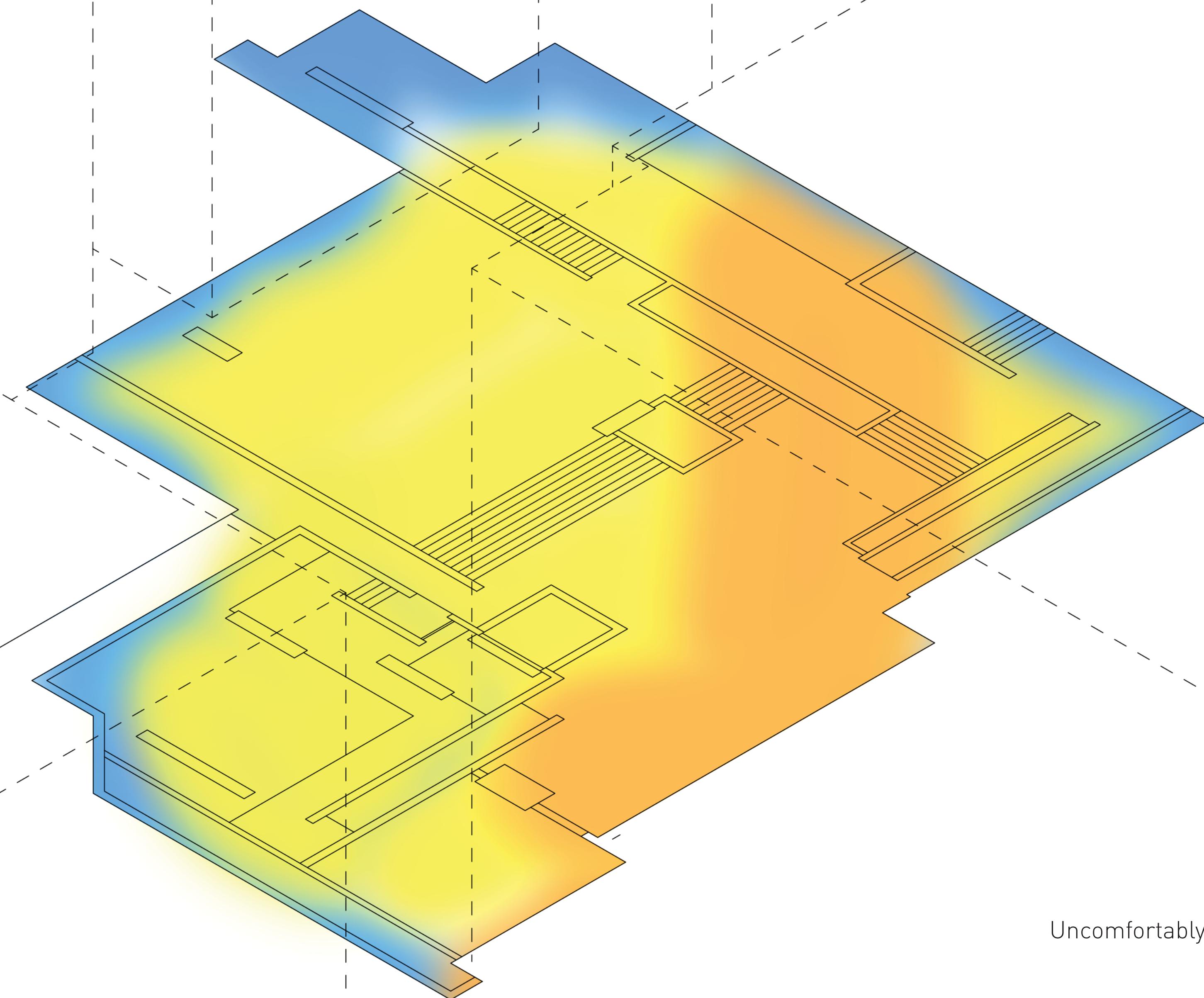


OUTDOOR THERMAL COMFORT STUDIES
GROUP 01 | JUSTINE HUANG + KATHERINE LANSKI + LOGAN WEAVER

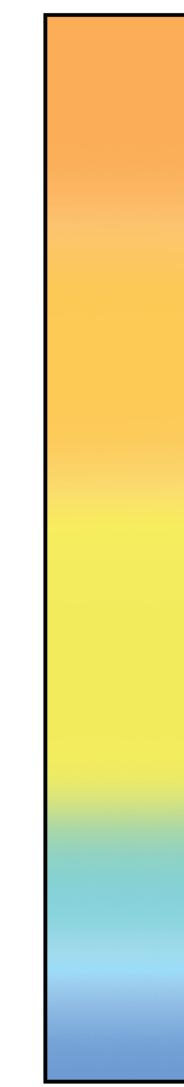


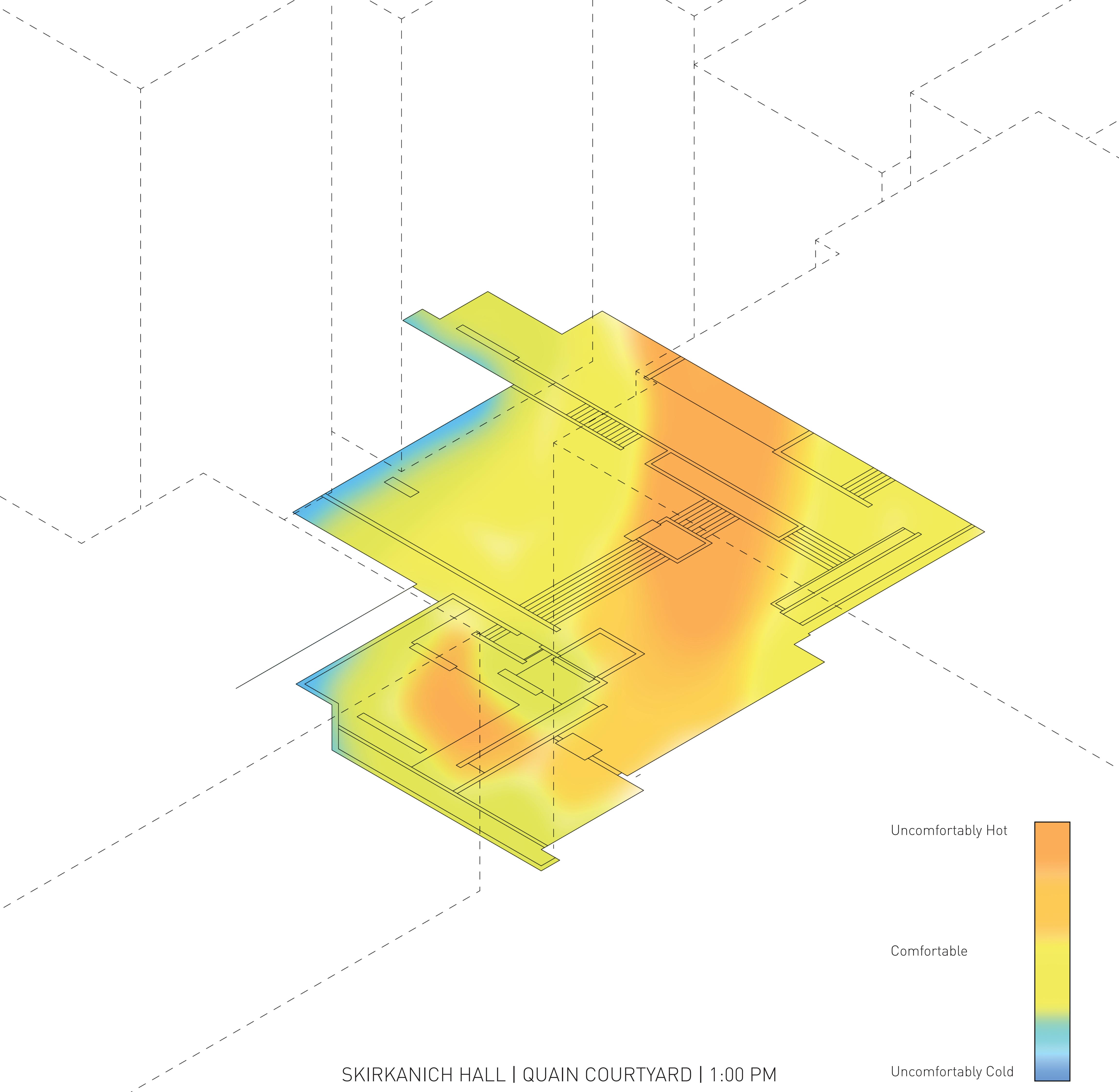
SKIRKLAND HALL | QUAIN COURTYARD | 11:30 AM

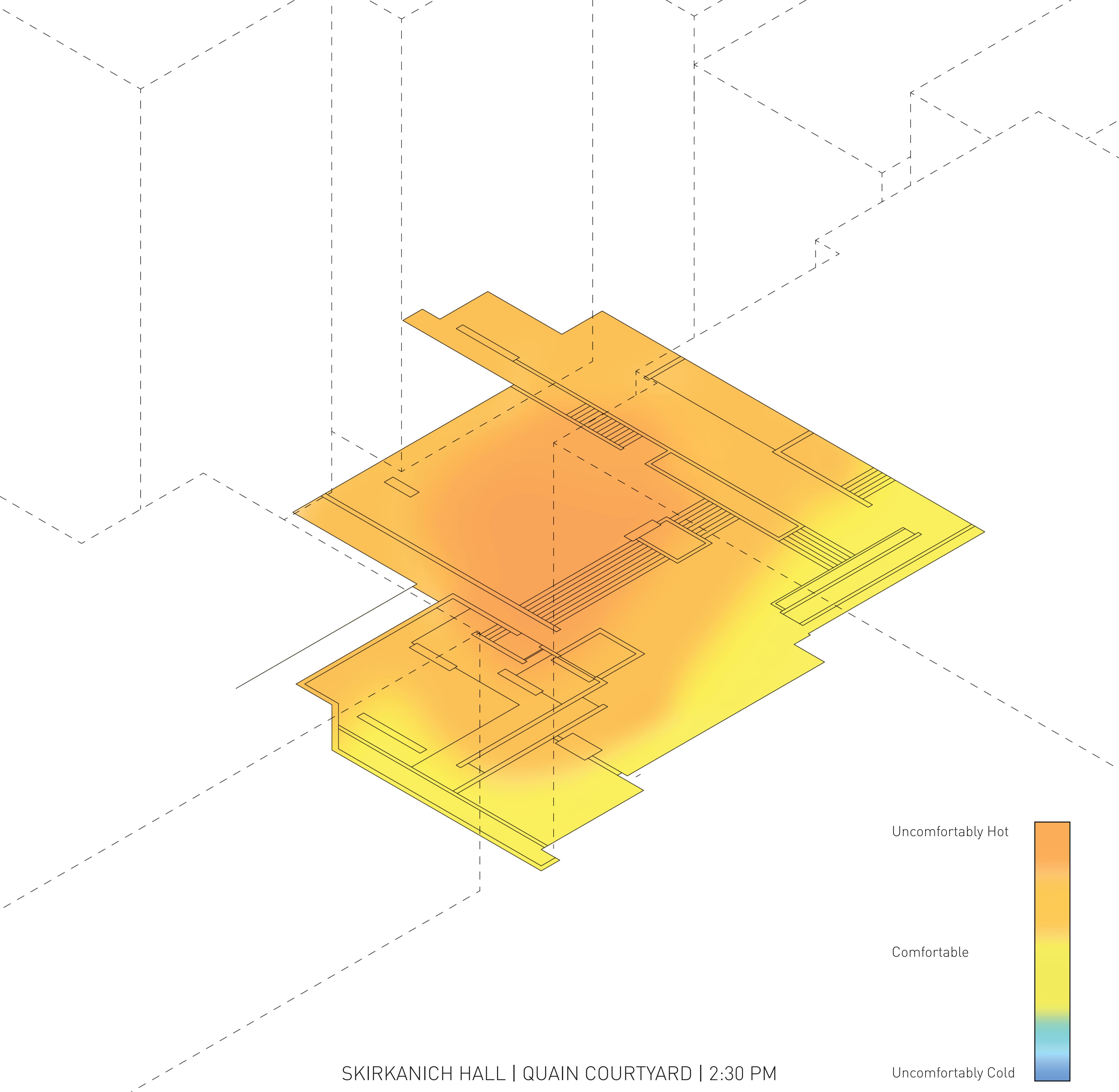
Uncomfortably Hot

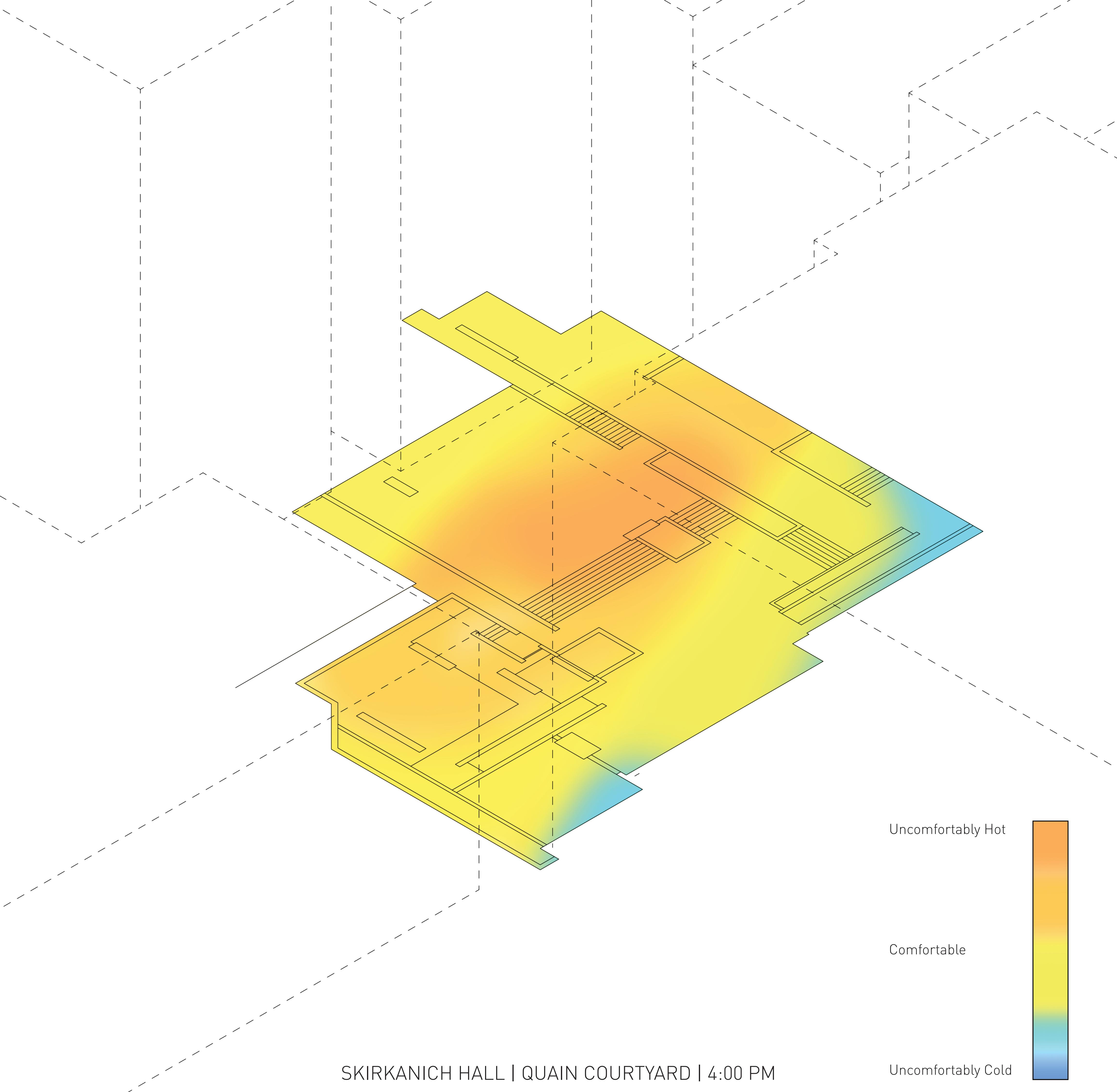
Comfortable

Uncomfortably Cold









SKIRKANICH HALL | QUAIN COURTYARD | WEATHER DATA

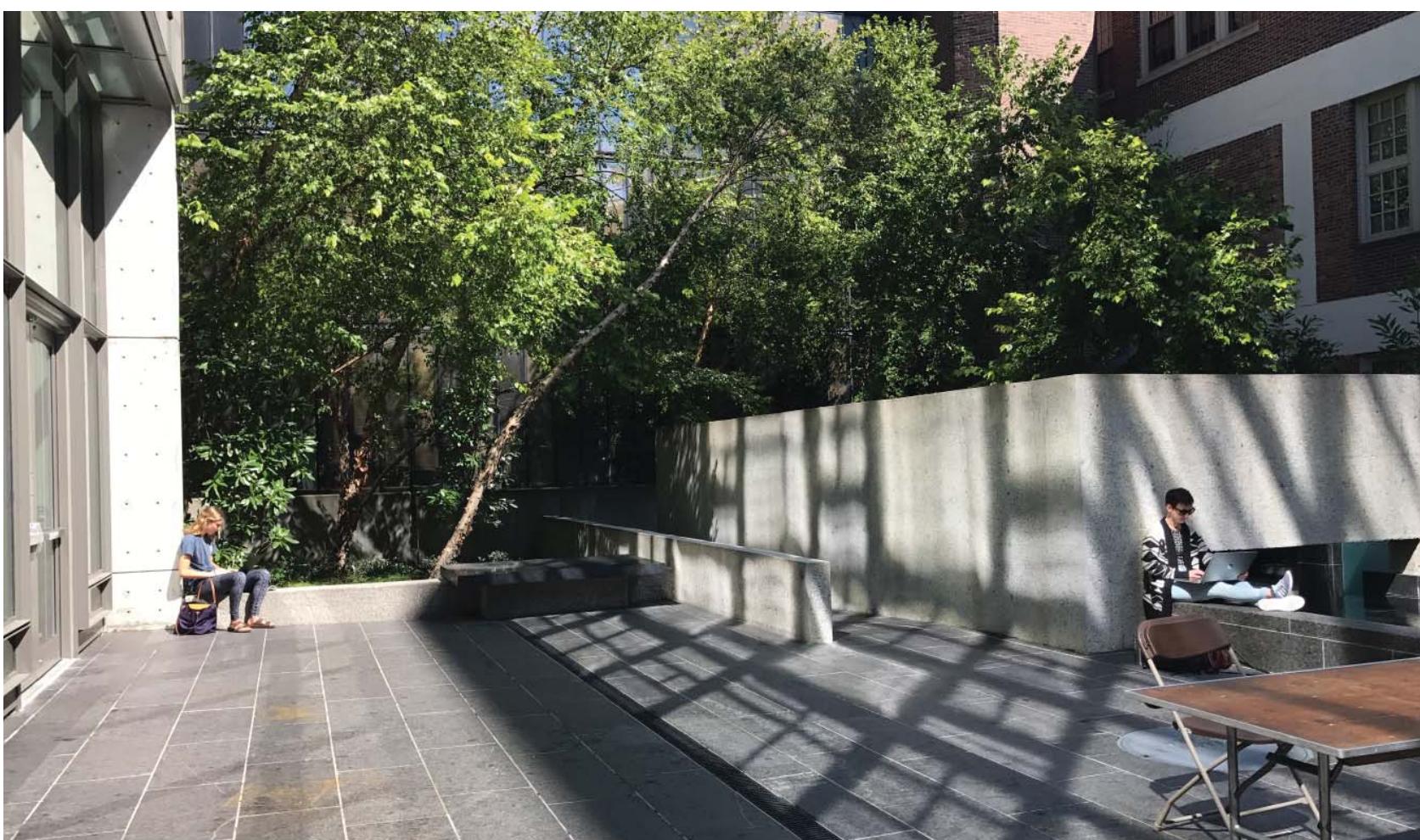
DATE	TIME	LOCATION	DRY BULB	RELATIVE HUMIDITY	WIND SPEED	COMFORT LEVEL
09.09.1995	11:00 AM	Philadelphia EPW	25.6 C	67%	1.5 m/s	
09.09.2017	11:30 AM	Weather Station	20 C	50%	5.1 m/s	
09.09.2017	11:30 AM	Quain Courtyard	21.6 C	52%	0.2 - 1.1 m/s	Comfortable
09.09.1995	1:00 PM	Philadelphia EPW	26.1 C	65%	3.1 m/s	
09.09.2017	1:00 PM	Weather Station	19.4 C	47%	3.6 m/s	
09.09.2017	1:00 PM	Quain Courtyard	23.5 C	45%	0.4 - 1.9 m/s	Comfortable
09.09.1995	2:00 PM	Philadelphia EPW	28.3 C	55%	2.6 m/s	
09.09.2017	2:30 PM	Weather Station	21.1 C	42%	6.2 m/s	
09.09.2017	2:30 PM	Quain Courtyard	24.7 C	43%	0.5 - 2.0 m/s	Slightly Hot
09.09.1995	4:00 PM	Philadelphia EPW	28.9 C	53%	1.5 m/s	
09.09.2017	4:00 PM	Weather Station	21.7 C	39%	5.7 m/s	
09.09.2017	4:00 PM	Quain Courtyard	24.2 C	41%	0.3 - 1.4 m/s	Slightly Hot



11:30 AM



2:30 PM



1:00 PM



4:00 PM

We observed that there were more people out during the day as the temperature increased. When the temperature was at its highest, the occupants typically sat in the shaded, semi-shaded, and wind-exposed areas. Our top two design changes would be to use less reflective and less absorbent materials due to heat radiation. The comfort level of a summer and winter day are difficult to predict because this site has adequate sunlight and wind exposure, allowing warmth in the winter and a breeze in the summer.