

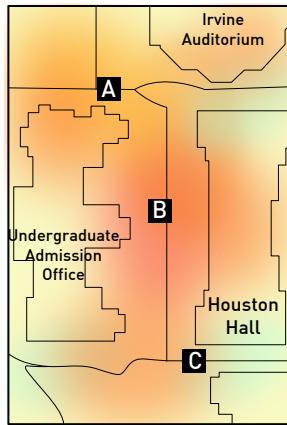
Environmental Systems I

Assignment II - Outdoor Thermal Comfort
 Jason Jongwon Lee / Moise Yamba / Ayo Ogunmoyero
 September 11, 2017

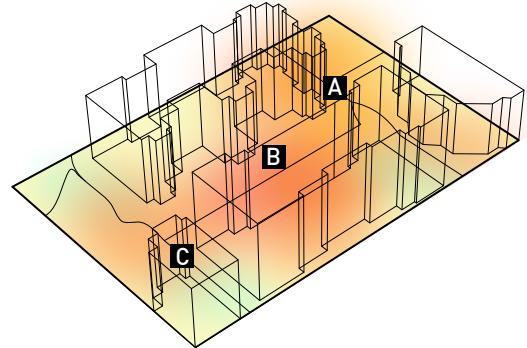
Analysis Site

Houston Hall / Convention Hall
 3417 Spruce St, Philadelphia, PA, 19104

Observation I	A	B	C
10:30 a.m.			
Dry Air Temperature	74.1 F	80.3 F	75.8 F
Phone Temperature	74 F	74 F	74 F
Relative Humidity	48 %	48 %	48 %
Wind Speed	1.6 m/s	1.7 m/s	1.5 m/s
Comfort Condition	Cool	Slightly hot	Good



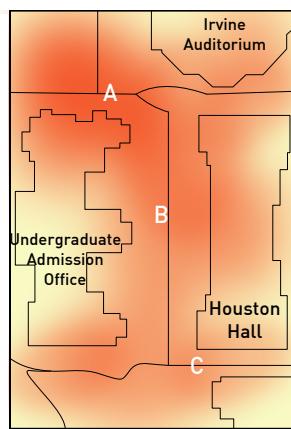
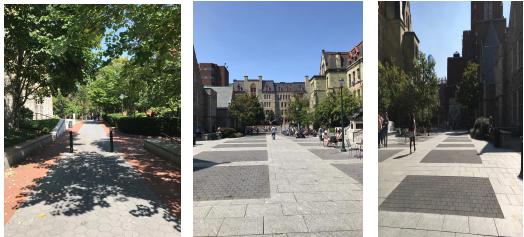
Houston Hall Site Plan



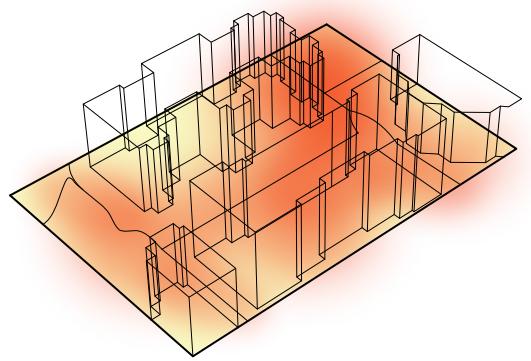
Houston Hall Site Axon

We noticed that the front yard between Undergraduate Admission Office and Houston hall takes the most heat, and thus people stay on the peripheries. One week ago, due to the high exposure to radiation at site B, there was a temporary tent for a community event, but the sudden air flow from point A to point B brings a huge wind with pressure difference, and gives good circulation along the aisle towards point C.

Observation II	A	B	C
12: 25 p.m.			
Dry Air Temperature	80.3 F	87.5 F	94.4 F
Phone Temperature	75 F	75 F	75 F
Relative Humidity	46 %	46 %	46 %
Wind Speed	1.8	1.4	0.9
Comfort Condition	Chill	Warm	Hot

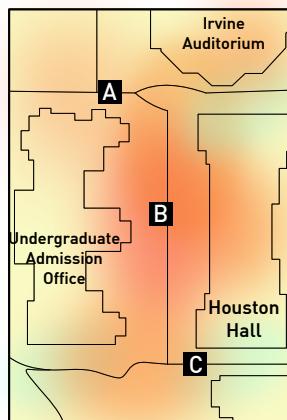
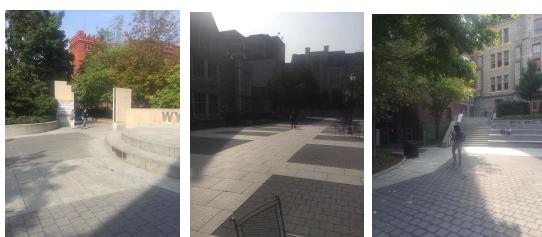


Houston Hall Site Plan

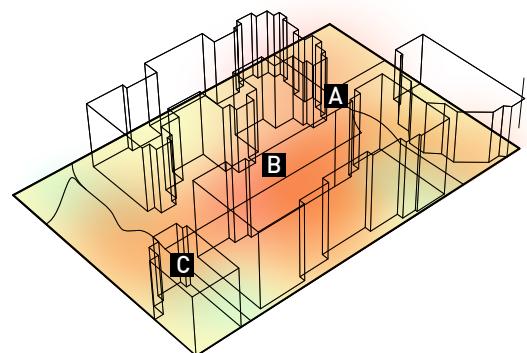


Houston Hall Site Axon

Observation III	A	B	C
3:55 p.m.			
Dry Air Temperature	89.6 F	98.6 F	71.6 F
Phone Temperature	77 F	77 F	77 F
Relative Humidity	33%	33 %	33 %
Wind Speed	3.6 m/s	2.9 m/s	3.1 m/s
Comfort Condition	Hot	Hot	Good/Cool



Houston Hall Site Plan



Houston Hall Site Axon