Thermal and Visual Comfort Maximization of an Unconditioned Space

PROJECT GOAL

Maximize hours or percent of comfort.

OBJECTIVES

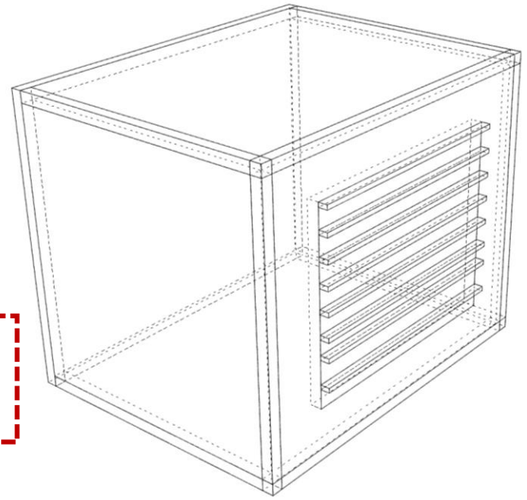
Analyze the climate

Analyze Performance of Base Case

Devising Design Strategies

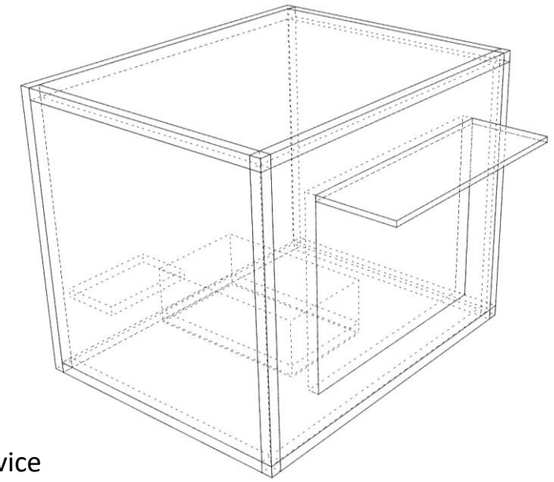
Evaluating the performance of an improved design proposal

Design Iterations	Comfort %	sDA	March (DGP)			June (DGP)			December (DGP)		
			9A.M	12 Noon	3 P.M	9A.M	12 Noon	3 P.M	9A.M	12 Noon	3 P.M
Base Design	15.58	65.96	0.35	0.29	0.28	0.34	0.3	0.29	0.27	0.28	0.26
1.A	76.17	87.14	0.35	0.32	0.26	0.3	0.3	0.27	1.0	0.34	0.26
1.B	76.47	90	0.36	0.32	0.27	0.31	0.3	0.27	1.0	0.36	0.27
2.A	78.8	72.86	0.28	0.27	0.24	0.25	0.25	0.24	1.0	0.28	0.24
2.B	79.1	67.14	0.27	0.26	0.24	0.25	0.25	0.24	0.29	0.28	0.24



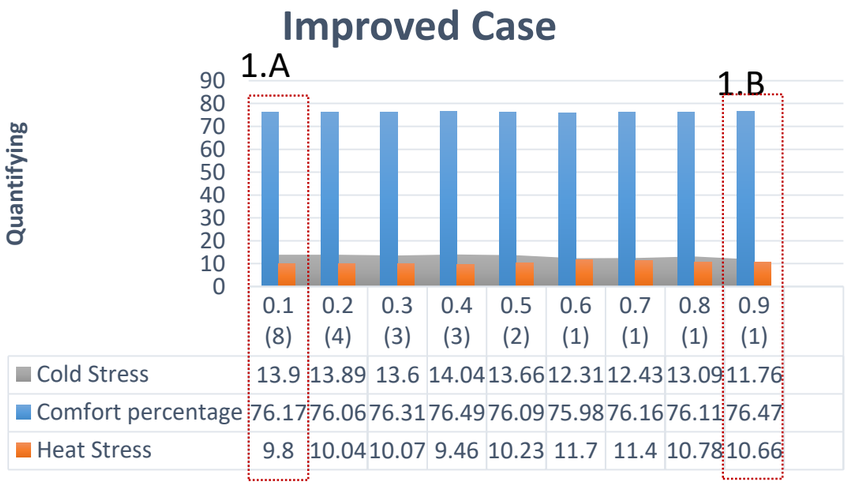
Improved Case 1

- South Glazing 40%
- Orientation 20 degree
- Longer face has the opening
- 8 nos. 0.1mt thickness of shading device



Improved Case 2

- South Glazing 40%
- Orientation 20 degree
- Longer face has the opening
- 8 nos. 0.1mt thickness of shading device



Here the quantities 0.1, 0.2, 0.3, etc depict the depth whereas the nos. inside parenthesis (1,2,3,etc.) stand for the nos. of shades or blinds.