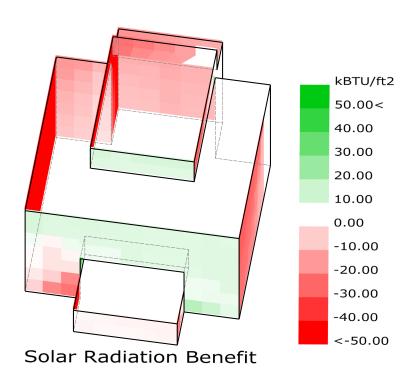
Assignment-07_Massing_Meyerson_Hall

Meyerson Hall_Original

Net Solar Value: -9786



kBTU/ft2 50.00< 40.00 30.00 20.00 10.00 -10.00 -20.00 -30.00 -40.00 <-50.00 Solar Radiation Benefit

Meyerson Hall_Iteration 1

Net Solar Value: -10138

Process of Finding the Optimum Form:
I tried to adjust the angle of the surfaces which were facing west in original design. However, the new surfaces are not facing fully toward north or south, therefore, it does not optimize the form. Besides, new iteration increase the surface of the facade which decreases the value of Net Solar Value.

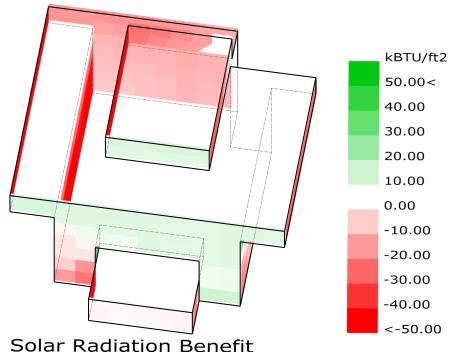
kBTU/ft2 50.00< 40.00 30.00 20.00 10.00 0.00 -10.00 -20.00 -30.00 -40.00 <-50.00

Solar Radiation Benefit

Meyerson Hall_Iteration 2

Net Solar Value: -11568

Process of Finding the Optimum Form:
I adjust the surfaces on west and east elevation.
However, in this iteration, it increases too many areas of the facade surface which at the end dramaticly decrease the Net dSolar Value.



Meyerson Hall_Iteration 3

kBTU/ft2 NetSolarValue:-6818

Process of Finding the Optimum Form: In this iteration, instead of adjust the surface angle, I create overhang volumes on the west and east elevation, which shade the facade beneath it. Therefore, it increases the Net Solar Value without creating too many exposed surfaces to the sun.