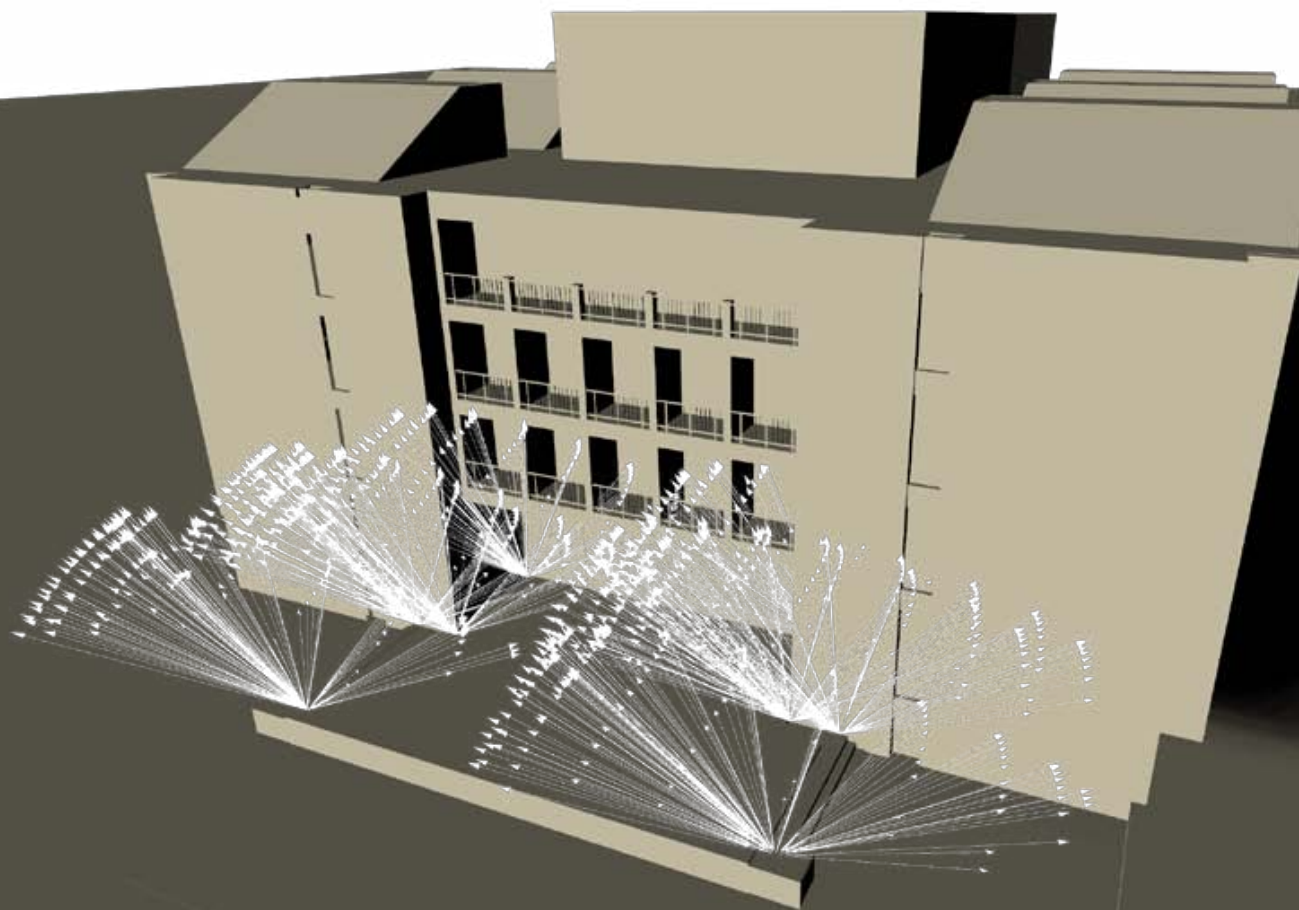
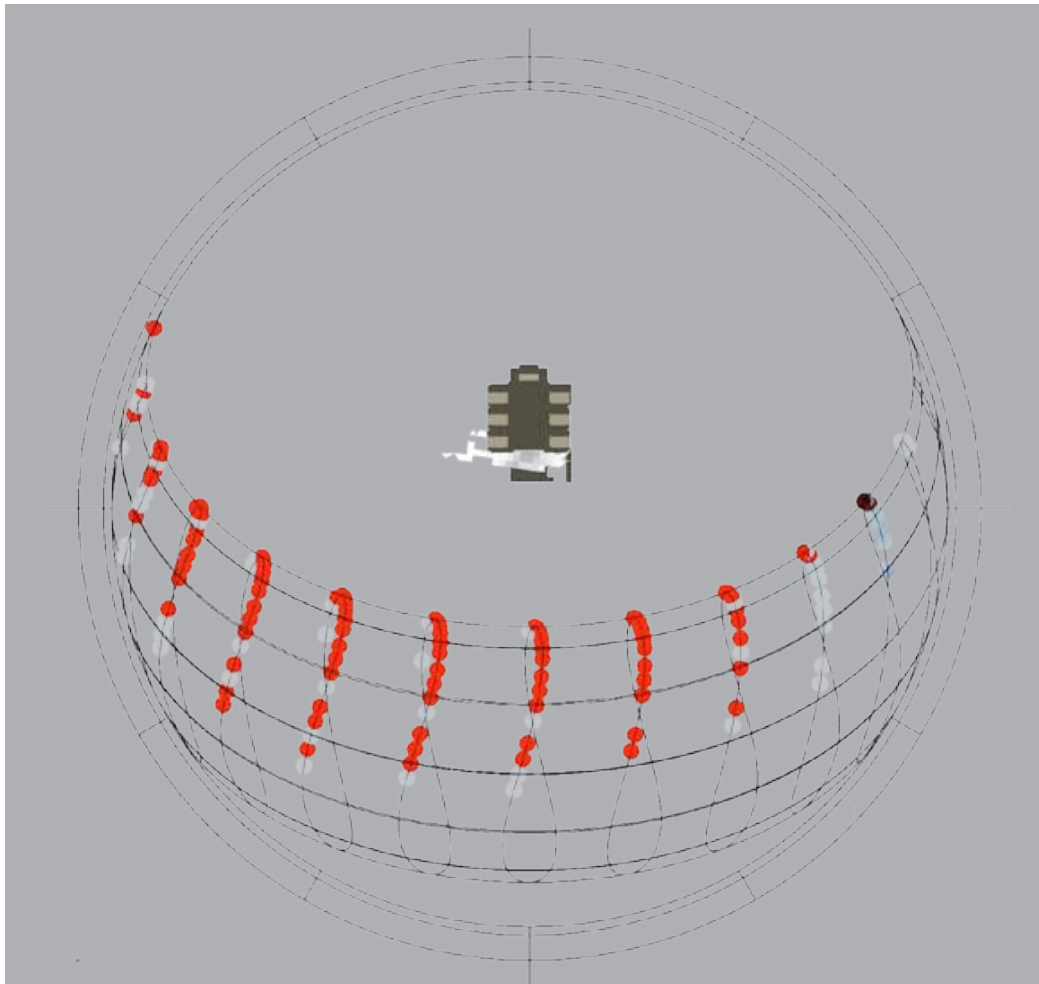
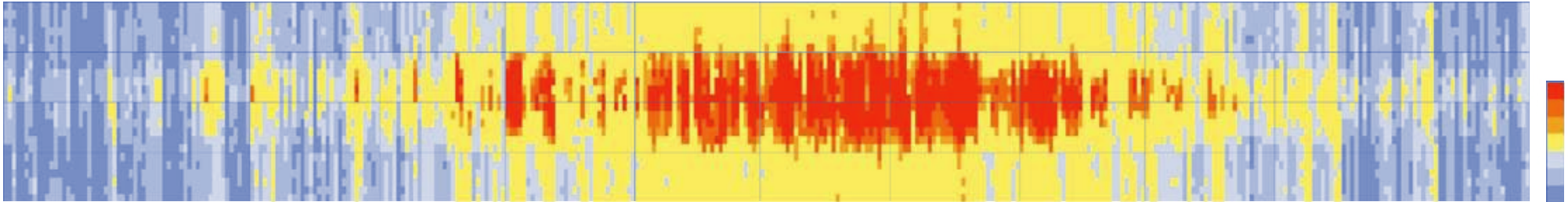


Meyerson Patio Solar Shading Device

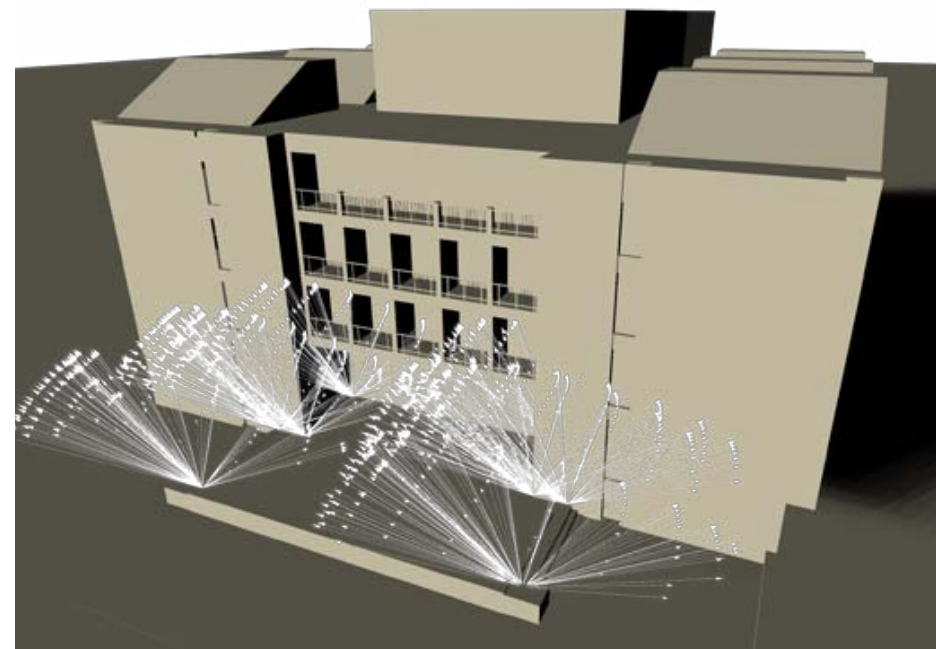
Kirin Kennedy



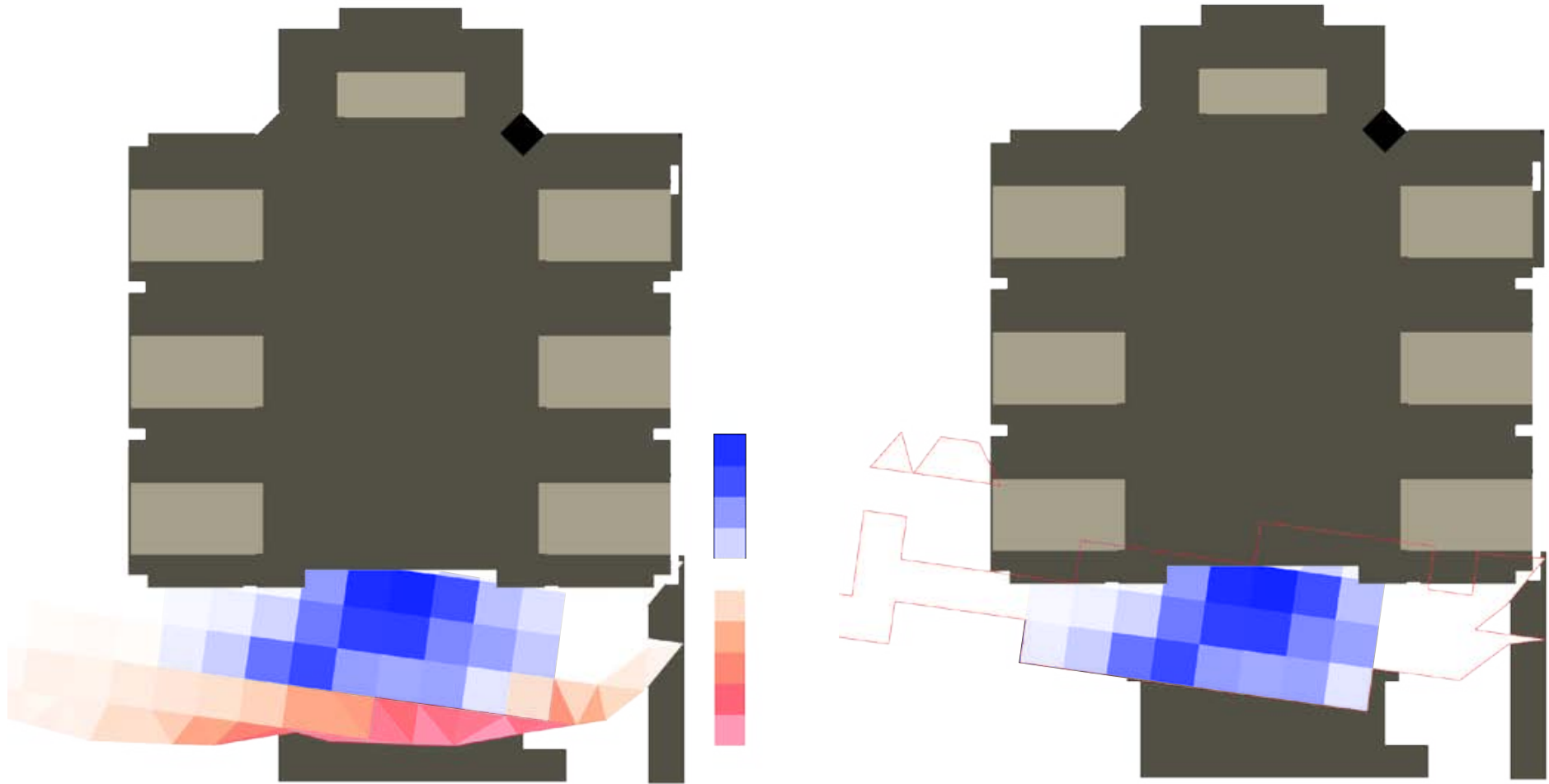
Philadelphia and Meyerson Hall



Philadelphia has a highly volatile climate with numerous periods of time above and below comfortable levels. Meyerson's south facing patio is a place which experiences both of these phases. By introducing shading devices over the area of the south patio, it is possible to reduce some of the summer uncomfortable heat. This shading device must seek to block the hotter summer sun while allowing in the winter sun.



Shading Device



To find a shading device which would work for the entire area of the south patio, the vertices of the raised slab were considered. Using these vertices and the location of the sun when the UTCI is uncomfortably warm, vectors were established which should be blocked. By optimizing for the more helpful solar blocking rather than the harmful blocking during the winter, a solar shade will help make the area more comfortable.

Despite attempts to try and troubleshoot the issue and the straight forward intention, this script did not work as initially planned. The shading device made little difference in heating or cooling on the deck. Rather than simply removing areas of a predetermined shape for the shading, this process seemed more appropriate to use the sun to dictate what needed to be blocked. Despite the final numbers, the position of the shading device does seem appropriately placed.