Arch 463 ECS Fall 2023

SiteX-1 Virtual "East City Park Site Analysis"

For this site exercise you will be expected to remotely explore, document, and experiment with your assigned (surrogate) site. Your TAs will be on hand to lend you guidance. Use available digital tools to perform your site analysis—the topographic map provided on our web site, Google Earth, Cove Tool, etc..

Specific assignments:

- (1) During the virtual site visit, examine the site topography and vegetation using the site plan and Google Earth to identify potentially advantageous microclimates for your future building site (and plot them on your site plan). Annotate your observations about vegetation and water features on the site plan. Screen captures from Street View in Google Earth can be an invaluable component for recording the site configuration. Indicate the position and direction of each view on your site map. Include this annotated site map, and your images/drawings in the documentation for the LabX.
- (2) Build a physical site model [See *InsideOut* B1.3 for tecnique] or a Sketch-Up model or a CoveTool model [see next page for CoveTool hints] and perform shading studies for at least two potential building sites to determine their suitability for solar heating and site-scale shading. Record the positions of the studies on your site plan.
- (3) Use the shading and topology information for microclimate analysis. You'll want to determine what the seasonally coolest/hottest, windiest/calmest, and wettest/driest spots on your site are. Record your findings and their positions on your site plan.
- (4) Write a conclusion about your virtual site visit to explain the meaning of your observations and the data that you've collected. Also, draw conclusions (and defend them with information, not data) about the site's potential to support the building type that you've been assigned.

All the above should be incorporated into your presentation for LabX-1.

Shading studies can be performed in CoveTool, but you have to trick it. Oshan says, "I tried a demo model with polygonal trees of same height and setting the tree trunk as wall layer and the part above the trunk as roof layer. Setting them in shading layers doesn't seem to work so, I used the wall and roof layers for the trees as well. I have attached the screenshots of the demo model and the shading result."



This is similar to modeling the trees in Sketch-Up.

