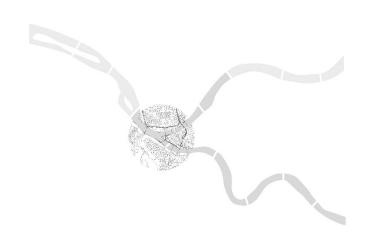**Project Proposal**
CFA North Stair Map

General Objectives

Create an aesthetically beautiful, dynamic map that illustrates clearly some of the same unique figure/ground characteristics of the existing Nolli Map.

Activate the space for the passive observer with a dynamic, eye catching functionality, as well as provide an opportunity for a beautiful and enlightening interaction.

Design Description

The map will be arranged around the convergence of the three rivers. The rivers, being one of Pittsburgh's most recognizable characteristics, will also be the primary activator of the space. The rivers will stretch out across the wall, at the same scale as the current map. They will be made from plain aluminum sheets, offset off the wall with short brackets, divided based on the locations of key bridges. The sections that appear darker are reachable, and will produce a tone through a central speaker when touched. This creates an opportunity for interaction with the piece, and with other people as one person cannot produce more than two/three tones at once. The circled area is limited in size due to budgetary concerns, we settled on this location due to the importance of emphasizing the convergence of the rivers, and the inability to cover more ground without purchasing an obscene amount of LEDs. The circled area will be made with sheets of mdf with the building footprints laser cut out, and the road lines etched in. These panels will be backed with translucent acrylic, and will have LEDs running behind them. They will animate in a continuous and iterative pattern driven by a sketch in processing. The way the project is set up now, there is potential for future areas to be added on in subsequent circular areas. The cost of doing the entire map in such a manner (LED backing) is likely too much for the first phase.

Materials and Costs

MDF: 40 square feet total: 42$

Aluminum: 36 sqft: 80$ (ideally would be a heftier metal)

Power Supply: 25$

FadeCandy: 25$

Arduino: In possession

Speaker: In Possession

LEDs: 20 strips @ 15$: 300$

Rasperry Pi: 35$

Total rough cost: 507$ (recommended allotment 600$ for unforeseen expenses)

Schedule

Nov. 21st: Rough Prototype (processing sketch finished, code for tones finished, test of lights behind acrylic)

Dec. 7th: Circular section finished with all functionality

Jan. 21st: Everything fabricated and tested

Jan. 27th: Fully installed

More detailed schedule to follow