

Emily deGrandpré



Emily — *Latin, meaning*

hardworking, industrious, striving

deGrandpré — *French, meaning*

of / from the large meadow, field

Contact Information

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Hello! My name is Emily and I'm a graduating senior studying architecture in the 4 year BA program at Carnegie Mellon University. My path through architecture school has been non-traditional, after realizing back in 2017 that I did not wish to become an Architect with a capital A, but that I enjoy many aspects of architectural thinking and I'd like to work on problems with people that care deeply about our relationship to and with the built environment.

Over the last 3 years, I have applied myself beyond the boundaries of architectural drawings, which you will see in the following pages. What I found during my time as an undergraduate is that I have strong analytical inclinations that inform my creative thought processes; combining the analytical and the creative lends well to explanations through diagrams, maps, sketches, avid note taking, with the goal to build **living works or systems where feedback can be gathered to inform the process even further**.

I'm extremely interested in **researching locations, contexts, and human preferences in micro and macro scales**. I'm also interested in **understanding the role of technology when designing for public/private spaces, social interactions, and rethinking the ordinary. There's so much to learn**. Supporting those main interests, I've also worked with analyzing user engagements (both for the physical and digital), solar energy, project management, marketing, responsive front end web development, and more recently developing VR/AR experiences... All the while grappling with **the question of how to bridge knowledge and communication gaps in and across industries by using design thinking and collaborative tools that enable research, sharing, mobility, ideation, and prototyping**.

Currently, I am working as a student intern at Metro21, CMU's Smart Cities Institute, where I have been making maps for presentations and writing articles as well as learning about faculty research, smart street lights, community engagement, funding, stakeholder meetings, and public and private partnerships.

With rapid changes in how we live and work in cities — they are increasingly becoming hyper-connected hubs for exchange and interaction, and they have so much potential for the **co-creation of value**. This is something I'm learning about now in my Human Computer Interaction course, Digital Service Innovation. Other coursework I've engaged with at CMU include studies in Psychology, Art, Design, Information Systems, Philosophy, and Business. From all of this academically diverse exposure, I'm interested in how our ambitions as individuals and as groups, enable us think more critically and creatively about the quality of life and future of living.

I ask a lot of questions and enjoy in depth research. I hope to prototype for both the tangible and intangible benefits of design and technology. I hope **not only to think** critically about our relationship to advances in technology **but also to act upon, build, and inspire change** for the inputs and decisions that will lead us to delightful and viable outputs.

My curiosity, passion to reveal insights, and positive attitude is unparalleled when it comes to pouring my energy into projects. I hope you will consider the value that I can add to your team. Thank you for your time and consideration.

Resume & References

Education

Carnegie Mellon University / BA Architecture

AUG 2015 - MAY 2019 (PROJECTED) / PITTSBURGH

Awards & Involvement

Dubai Design Week, Project Exhibition in Global Grad Show, November 2018
1st Place, Carnegie Mellon Carnival Booth, Structural Design Chair, Spring 2018
Volunteer, Habitat for Humanity, Spring 2018 / Doors Open Pittsburgh, Fall 2018
Peer Mentor, School of Architecture mentorship program, Spring 2016 - Present

Experience

Metro21: Smart Cities Institute / Communication Design Intern

AUG 2018 - PRESENT / PITTSBURGH

Writing articles/proposals and designing maps used in executive presentations

Jack Morton Worldwide / 3D Environmental Design Intern

JUNE 2018 - AUGUST 2018 / SAN FRANCISCO

Designed microspaces for the Google Cloud NEXT conference attended by 30,000
Visualized the strategists' brand research and industry-specific consumer insights
Delivered 2 brand experience designs as a pitch to senior leadership

Pennmark Management / Project Management Intern

JULY 2017 - AUGUST 2017 / PHILADELPHIA

Reallocated 3,000 - 10,000 SQ. FT. spaces for new commercial real estate leases
Revised architectural drawings in collaboration with Construction Project Manager
Improved site plan representation and property information accuracy by over 40%

Community Energy Solar / Analyst Intern

JUNE 2016 - AUGUST 2016 / PHILADELPHIA

Analyzed and reported on KPI for solar sales, kWh, based on geographic location
Assisted in planning for solar walk project for Amazon Web Services & Dominion
Condensed RFP and RFI information into executive summaries

TEDxCMU / Head of Marketing

FALL 2015 - FALL 2016 / PITTSBURGH

Promoted main TEDx talk event through in person & Facebook marketing
Created awareness of the revived student organization on campus
Led recruitment and interviews for new student executive board

Skills

Design

Adobe Ps, Ai, Id, Sketch
Rhino + Grasshopper, Vray
Unity, TouchDesigner

Investigation

Google Marketing
Python, HTML + CSS
Ethnographic Research

Fabrication

model building
mixed media art
laser, CNC, 3D Print

References

Molly Wright Steenson, PhD

steenson@cmu.edu • (203)-640-8653
K&L Gates Associate Professor of
Ethics & Computational Technologies
School of Design at Carnegie Mellon University

Student in Molly's two part seminar course,
Artificial Intelligence and Culture Bodies & Cyborgs and Buildings & Cities

Chuck Hoover

choover@gmail.com • (650)-505-9506

General Manager, Facebook Reality Lab
Adjunct faculty at Carnegie Mellon's ETC

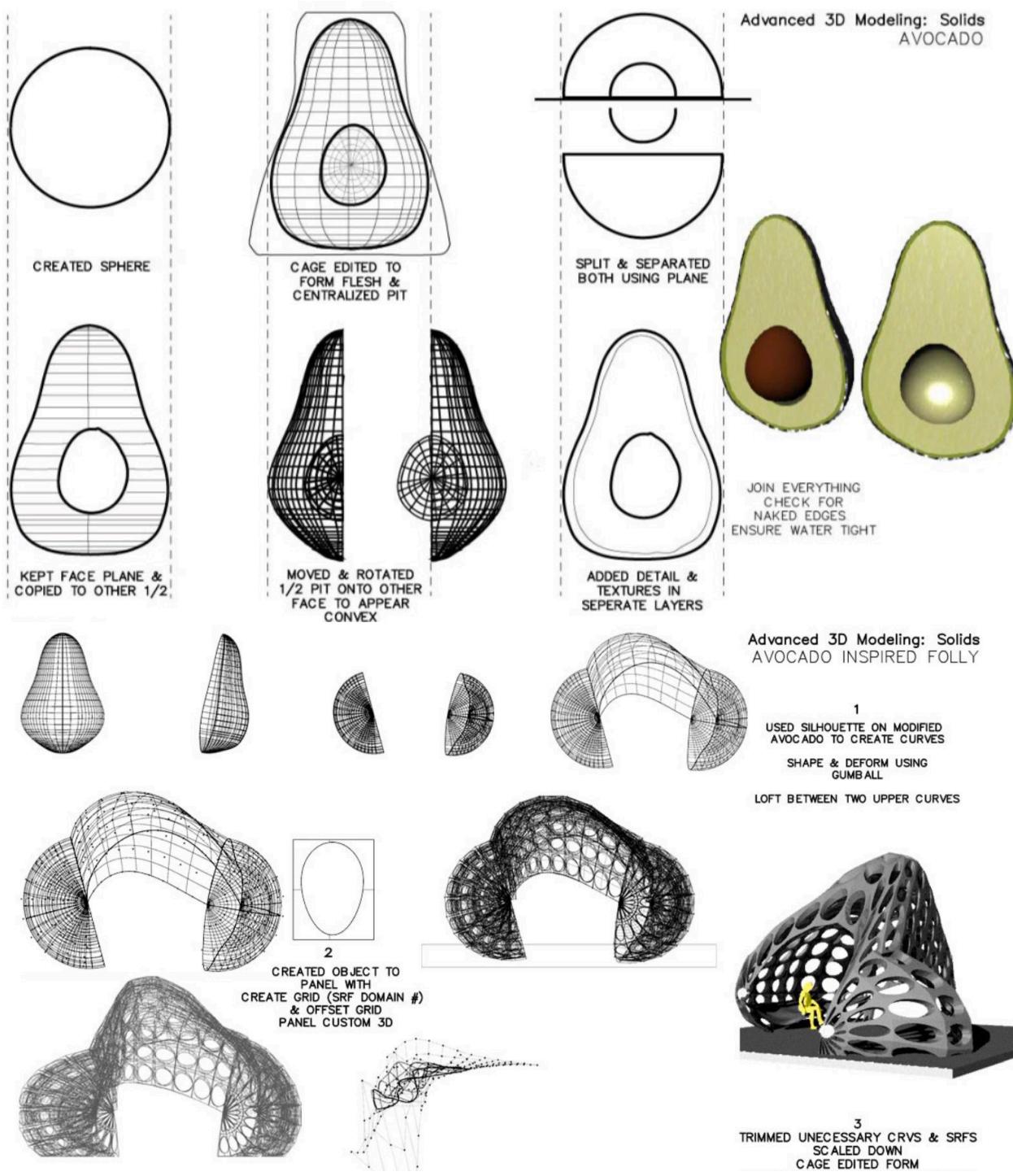
Student in Leadership & Production at the
Entertainment Technology Center, Pittsburgh

Chelsea Cavlovic

chelseac@cmu.edu • (724)-421-5794
Sr. Admin Coordinator
Metro21: Smart Cities Institute

Chelsea is my direct supervisor for my on campus internship, which started last fall

parametrics & 3D modeling



Context

When tasked to create a fruit inspired folly, I chose an avocado.

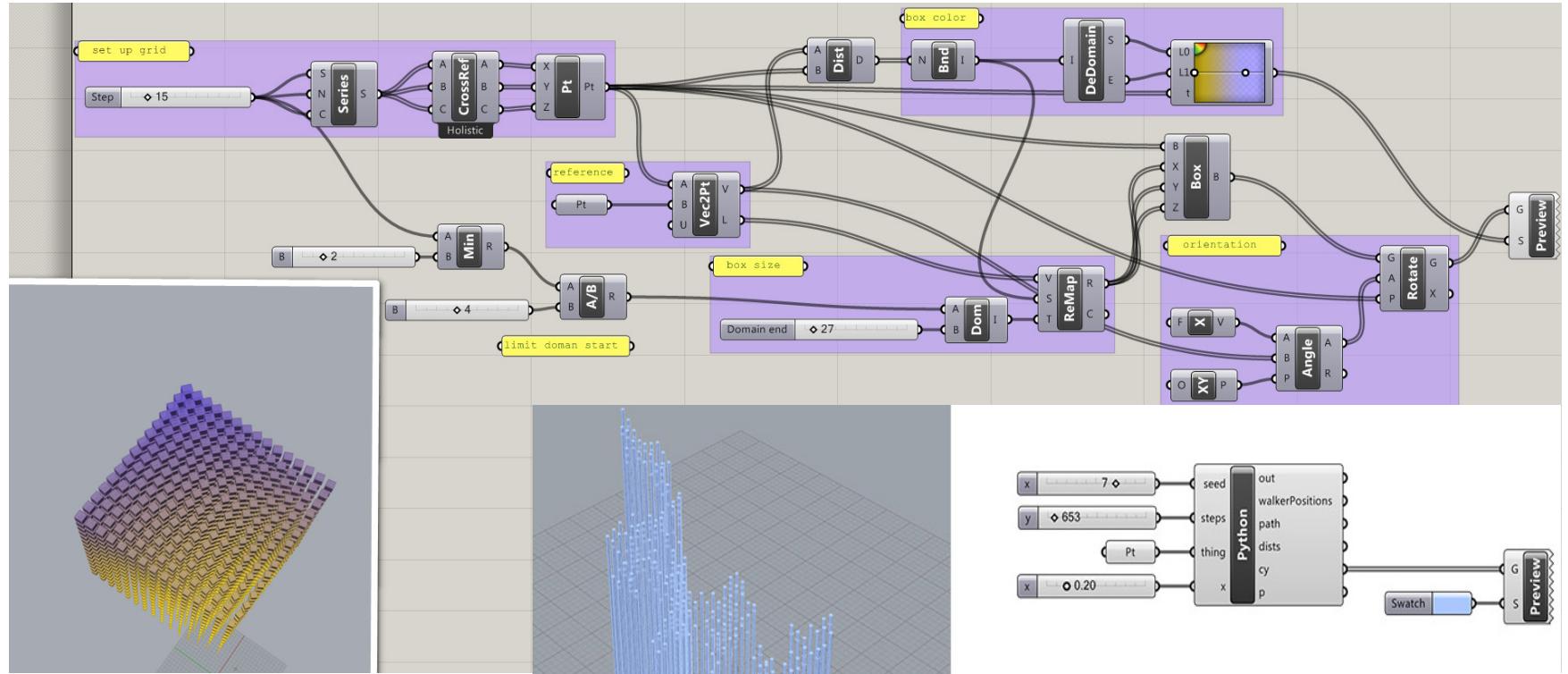
We had to think heavily about the procedure in 3D modeling of solids so I created a step by step tutorial for someone who wished to do something similar in Rhino.

The top diagram focuses on creating the shape itself and the last step “Join everything” is important to think about if this object were to be 3D printed.

The diagrams in the bottom emphasize the second part of the process. In order to panel, I needed a single object that could be easily stitched together with as little seams as possible.

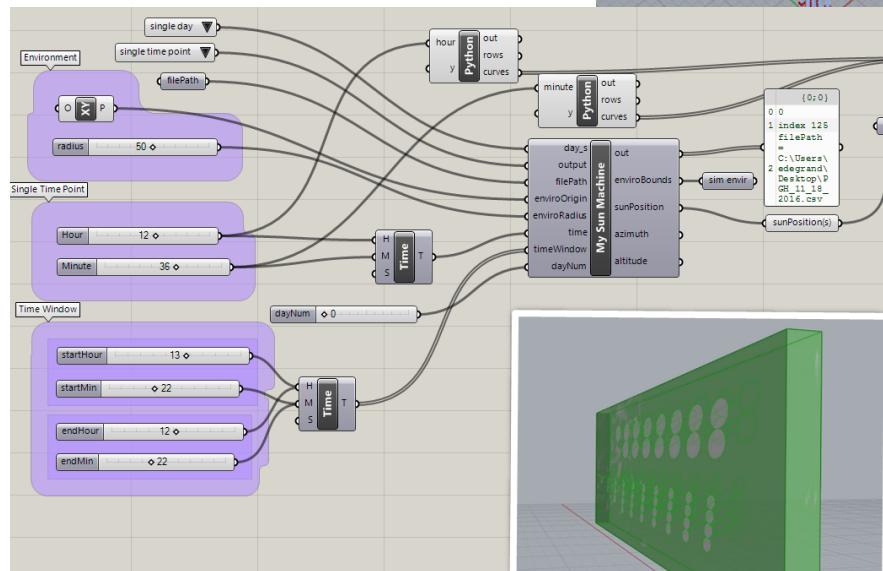
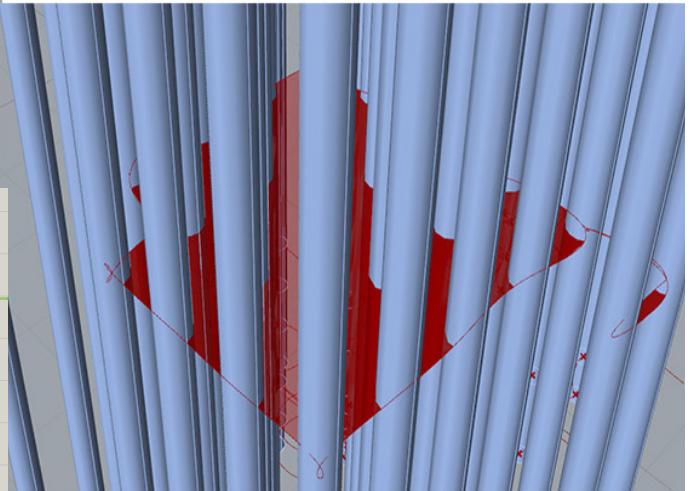
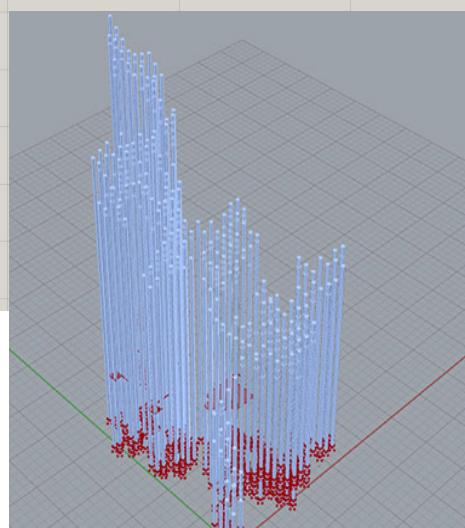
The actual paneling took place over the original solid UV orientations and then cage editing was used to adjust the final form and to create a small bench where the small yellow figure is sitting.

parametrics & python



Context

Grasshopper for Rhino explorations.
You can find more documentation [here](#)



Data Visualization, CMU

Context

In Fundamentals of Computational Design, I worked with a partner to visualize something I was curious about – where students at the university were from and how student populations have changed over time. To execute on my concept we took public data from Carnegie Mellon's website from the past 30 years (1986-2016) and created this poster.

Role

My role was gathering all relevant information from enrollment PDFs (student country of citizenship), parsing and cleaning the data into excel, and creating the bubble map. The map design represents the 2016 data where undergrad to graduate student ratios are in concentric circles, with undergrads in the darker color. Looking back, I've learned the pertinence of including keys since taking a GIS course and an information design course. My partner contributed to the project by using grasshopper for Rhino to draw the line graphs and we both post processed.

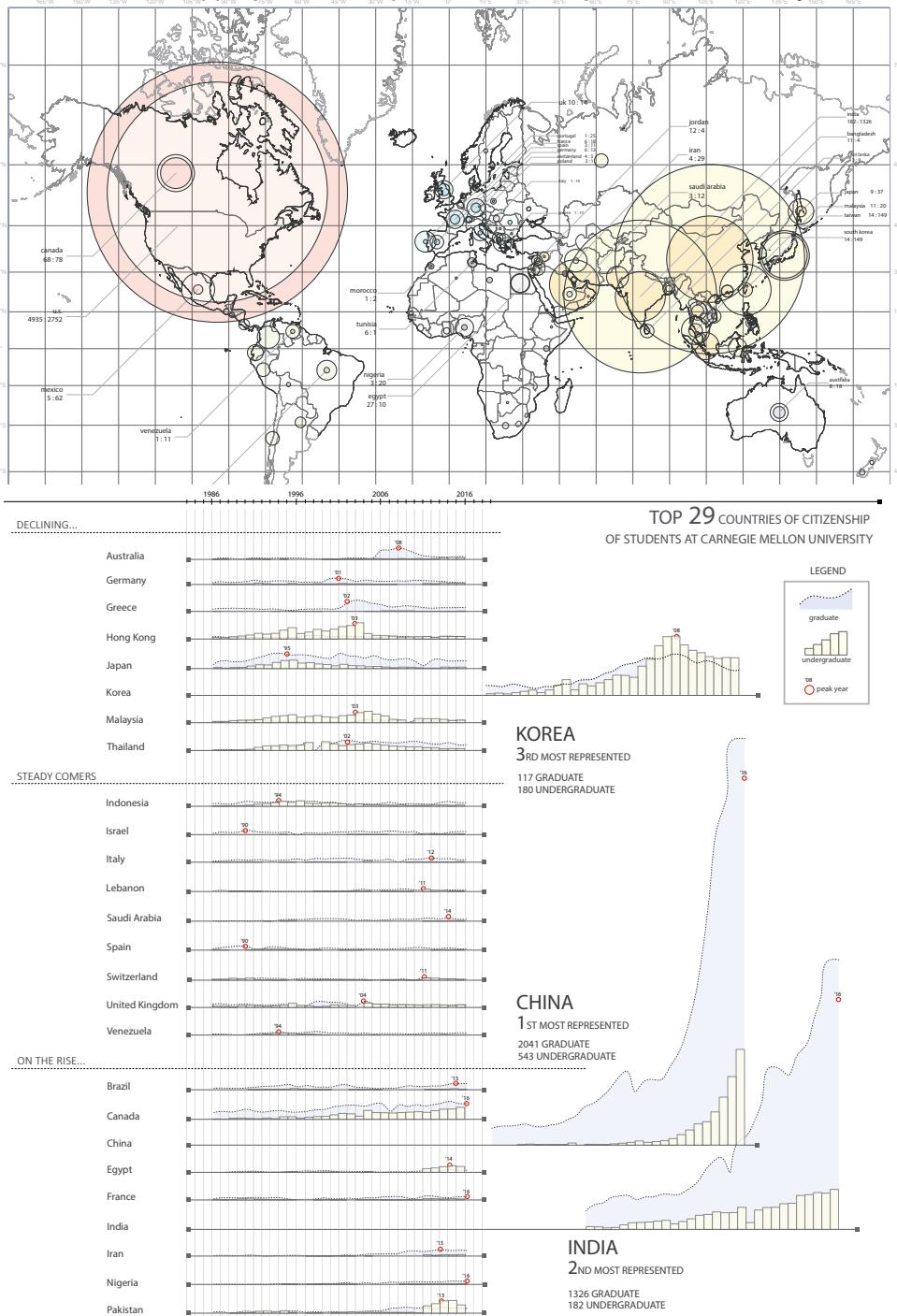
Process

In the design process, I was careful to properly proportion the data to the calculated area of each circle, since this is what the eye sees. At the time, I didn't have any relevant software (Tableau) or programming experience (Python) to speed up the process, so it was a manual feat, starting from a blank map, and working back and forth from Excel to Illustrator to create something visually engaging.

Takeaways

From the bubble map we see there are many graduate students coming from the east and that the UK has a similar number of undergraduates and graduate students. The timeline graphs annotate the peak year of student enrollment. These two visuals together help to aid in further analysis, to see what potential political or economic relationships may exist between nations, and perhaps to ask questions about CMU admissions and university futures.

Time Mapping Student Population at Carnegie Mellon University



Pittsburgh Neighborhoods

OBSERVATIONS

The North Side of Pittsburgh can be broken down in five distinct categories of people, ranging from energetic newcomers who seek to forge an exciting scene, to longstanding natives who want to protect the community's values while still seeking a positive environment for their families. These categories drive the area's social, economic, and cultural atmospheres. The effects operate noticeably on a small scale, influencing circulation between businesses, services, and community staples; they also reflect on a larger scale in the demographics of the North Side.

Context

In an Architecture Studio focused on Urban Agriculture we analyzed 3 closely connected diverse Pittsburgh neighborhoods that make up a core area of The Northside. We thought especially hard about the people living there, their sentiments, and access to resources.

Role

This project allowed me to think about the neighborhood scale and variations of urban living. My main role was to research all relevant demographics. I also thought about the narrative and collaborated on how to display all of the data into a detailed story on just two large spreads.

Process

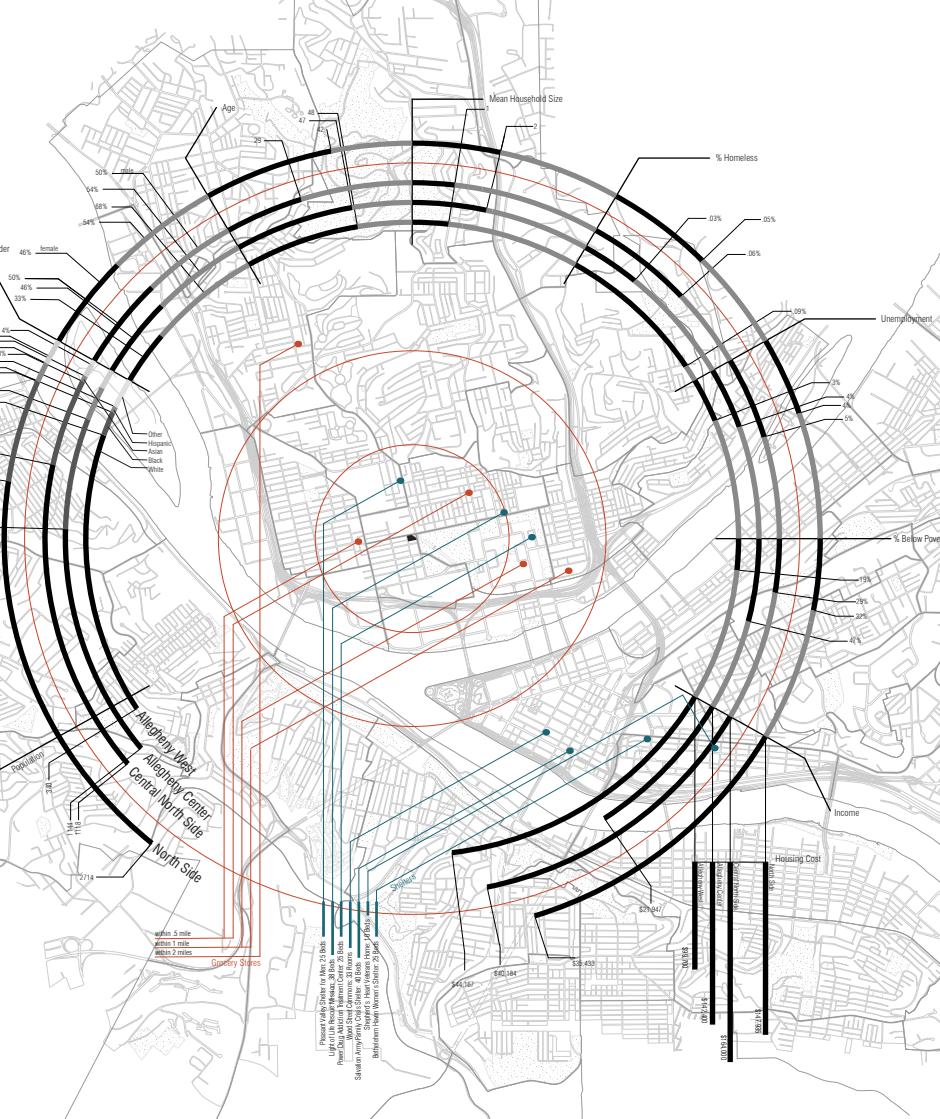
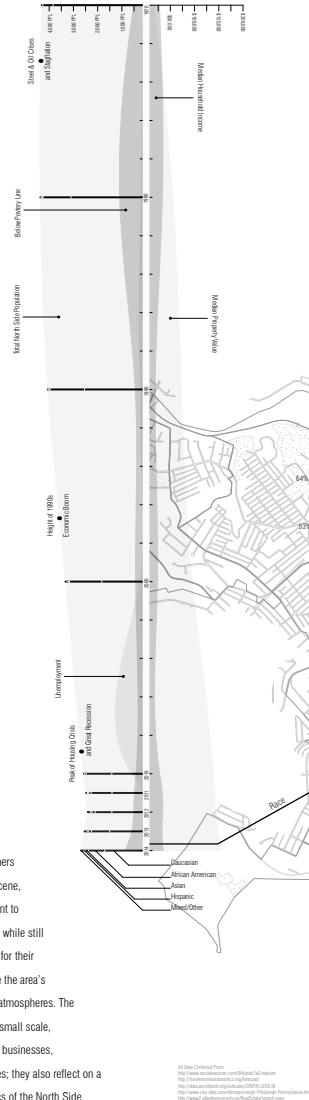
The other 5 designers and I worked extensively in Illustrator/InDesign, I worked a little more in google sheets. We started with a site visit where we took site photos and interviewed consenting residents. We tried to be mindful of disruption and instrusion and to tell the story well.

Takeaways

This was a huge collaborative effort on observation and details. We aimed to reflect and share the stories and experiences of people in this neighborhood. Some next steps would be to improve access to fresh groceries, this is one of the many food deserts in Pittsburgh.

SOCIAL CONTEXT THE NORTH SIDE

THE JOURNAL OF CLIMATE



NEWCOMERS

Occasional Visitors / Recently Relocated

This person either rarely visits the Northside or has lived here for under 5 years. They may be college educated and looking for a hip and up-and-coming place to start their new lives, but instead of seeing this neighborhood as a destination, they see it as a stepping off point. Many enjoy the new arts programming within the North Side and frequent the museums and stadiums, but also are aware of the gentrification it brings.



Workers / Frequent Visitors

These people do not live in the Northside, but they are in the area often enough to notice how it is changing. Maybe they have worked there for a decade, or maybe they go to the park every weekend. Some spend most of their day here. As frequent users of the restaurants for lunch and boutiques for merchandise, many see the new developments as a very positive change, appropriately contrasting from the economic trauma the Northside still experiences.



Rooted Family

These families have lived here for at least a decade with the intention of staying for a very long time; the parents choose to have and raise their kids here. Their kids go to the local schools and will grow up in the neighborhood. Some take advantage of the YMCA programs and the park as well as the local museums. Many of these families are involved in the church in the community and see the good intent behind them, but also see that there have been unintended consequences, and the execution of the projects have not been great. They hope to see projects that aim to unify the neighborhood instead of aiming to serve only one demographic.



Life-Long Community Members

This person was born and raised in Northside. They spend the vast majority of their time here. Some frequent many of the public spaces like the park, and the YMCA. Many are regulars at the local restaurants and bars and know the other regulars by name. They see the new projects that are happening in their neighborhood and are excited to see people showing interest in their home. These new projects bring jobs, something this community desperately needs. Because of this some may view the new development as a blessing without fully understanding the economic implications gentrification can have on a neighborhood.

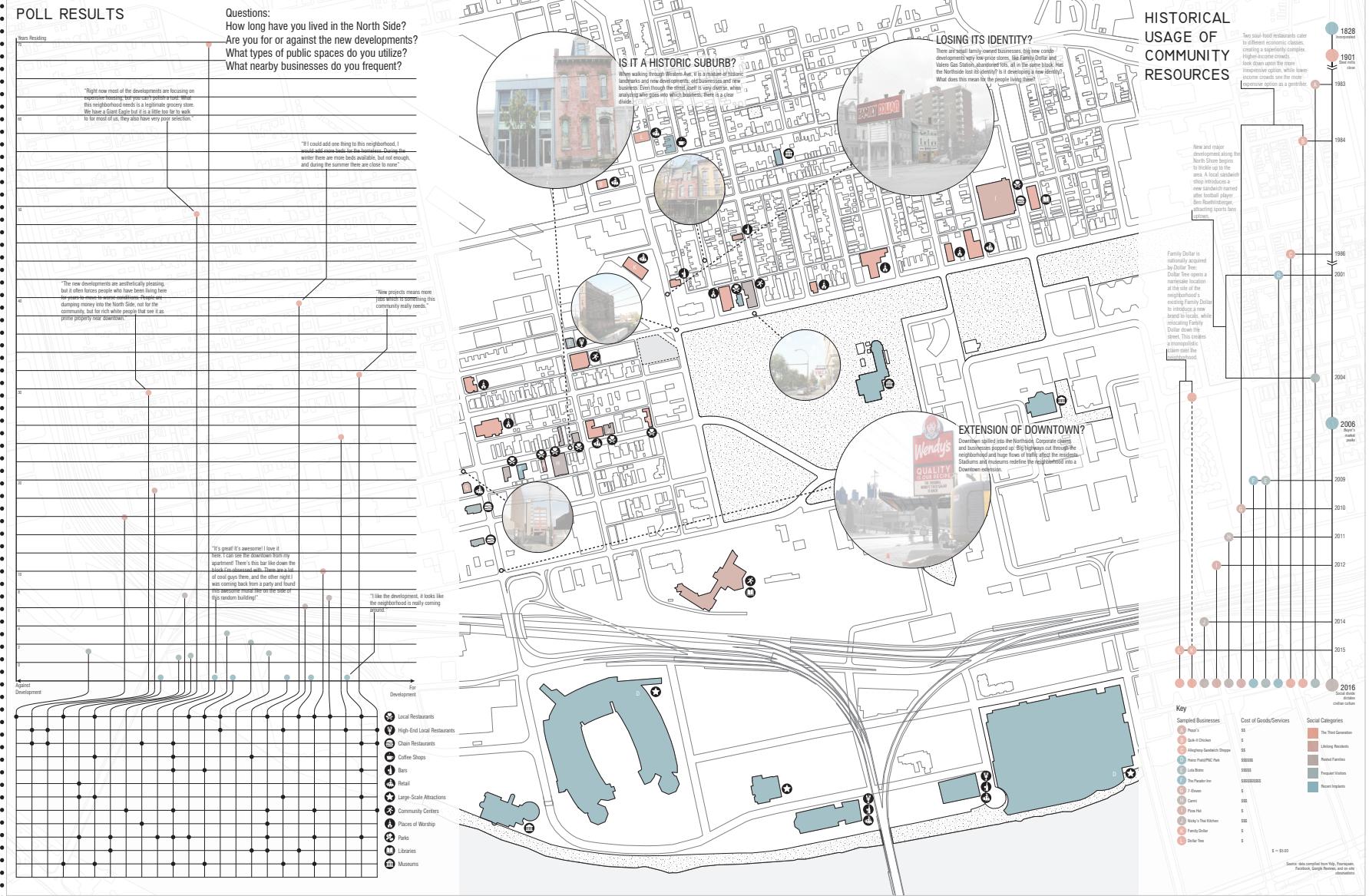


The Third Generation

These people's families have lived here for generations. They have stayed in the North Side through good times and bad. They know all of the local businesses and frequent restaurants and shops that mostly only locals know about. Many utilize the YMCA and the park, but wish both had more to offer. Some may be young, but because of their family ties to the community they understand the history of the neighborhood and see how new development is deviating from the original fabric of the community. They hope to see a future that benefits everyone, not just the newcomers who are moving in with money. Many fear that gentrification may separate the demographics within the neighborhood even more.

NATIVE

Pittsburgh Neighborhoods

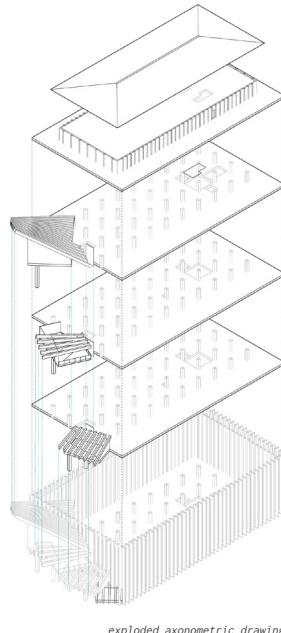
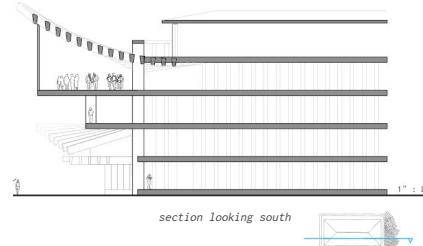


Hunt Library Parasite

• **Overview** As first year architecture students, we learned to understand and research what a library is, especially the academic library as a building type. Learning about activities and functions of libraries helped us realize how rapidly spaces, which were once reserved for books, are now changing as a response to technological advancements. To accommodate new kinds of media, learning, and 'knowledge production', we were challenged to design a parasitic addition to the University's main library. I chose to take a public interest approach — something that rarely happens in solo academic architecture projects but can aid greatly in understanding users. By conducting a survey, I was able to capture a snapshot in time of the needs and desires of a portion of student body to help better inform my process

[project title] cas-cade

1. a small waterfall, typically one of several that fall in stages down a steep rocky slope
2. a process whereby something, typically information or knowledge, is successively passed on



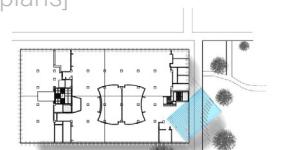
[render]

My render seeks to capture the exterior fins of the parasite which mimic the original aluminum fins and the interior rafters are wood construction. A living green wall is the most visible to the occupants on the 2nd and 3rd floor. Floor to ceiling glass windows permit scenic views across the campus.

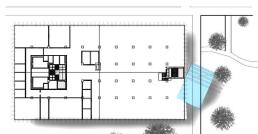
[project statement]

This is a parasitic addition to Carnegie Mellon University Hunt Library. Parasitic architecture is defined as buildings or parts of buildings that sit, lean or cling onto others. My parasite seeks to integrate the new with the old and make each floor an easily understandable and flexible space with designated functions on each floor.

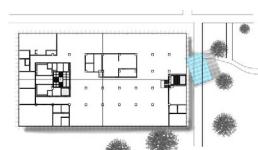
[floor plans]



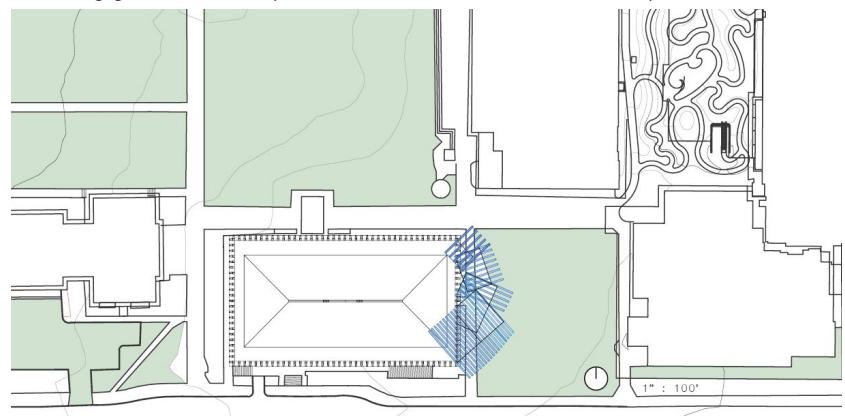
GROUP STUDY
a lounge like atmosphere
people can study in groups, meet, and collaborate
a wood ceiling creates a warm environment with plenty of natural light



INDIVIDUALS
extension of the quiet floor
higher ceiling, less gloomy
porch area for fresh air
perfect for naps, views, quiet, reflection, contemplation



PRIVATE STUDY
continuation of fin desks
smaller room size
enclosed, serious environment
perfect for getting straight forward work done, isolation



[site plan intervention]

Given the opportunity to choose any location on this rectangular building, I chose the east end facing the existing Peace Garden. This side of the building and this particular garden are underutilized on a day to day basis. Introducing parasitic architecture to this particular side of the building invigorates the library's edge condition and promotes the use of surrounding space.

Hunt Library Parasite

Project Approach / Process

Public Interest Survey: Google Forms, 98 responses

My central question about how students use the library and how often is pictured to the top right. The open ended format let the participants to share their stories freely and I even got some feedback that this was a very fun survey and also that it was someone's 'best survey they have ever taken'. I made sure to keep it light hearted while also aiming to seek insight on their serious concerns.

After reading through every open ended response a few times to get an idea of student perspectives, I visualized trends and themes by color coding words.

Did they answer all three parts of this question?

Did they use the word study? Were they claiming to be productive, or did they use the word procrastinate?

What did people who didn't study alone, do there?

the word procrastinate in hot pink

avid library goer story in cyan

don't go often to the library in orange

specific asks or requests in red

Two main pain points seemed to be

A. Not very satisfied with the library because of lack of ease finding the best place for them to study (sentiments of "it's all same stuff" and no specialized spaces)

B. Lack of enthusiasm and dreaded sentiment about going to the library and sometimes even emotionally triggered negatively by time spent there

This text is a compilation of responses I received from question 1 of my survey

What do you actually do at the library vs. what do you wish to do, use or get from the library? How often do you visit?

I found people were very honest, some even put a lot of thought into their responses. This was my starting point for determining contrasts, interests, trends and understanding students desires for the CMU university library.

I study in the quiet area and that is what I want to do there. I visit rarely spend most of my time in Gates. I study, I want to be happier, I want happiness and light. I go there to get food. I used to go there last semester but it's too far away, half of the time procrastinate/browsing internet, half the time maybe study. I work at the front desk, so 99% of the time, I am sitting at the front desk helping people like I imagined. If it's not busy I might be allowed to work on homework. I mostly work nights (9-11). The other 1% is miscellaneous time between classes that is spent trying to catch up on emails and random work. I find I am very productive at the library, but after 75 hours, I stop getting anything done (I find this is true of almost any space I study in though.) I go to the library only, and only, to work. I choose not to enter that building otherwise. Normally happens late evening. Study. Actually do work at the library (and sometimes fall asleep when too tired). Wish to do work at library. Visit once in awhile. Study at the library. I wish to sleep there. I don't visit often. I never visit the library. I am productive at the library. It's a good environment for me. However, I haven't been there to do homework in a year. Study at the library often.

successfully, I try to do work but end up surfing the web. I visit it around 3 times a week. I primarily eat at Maggie Murph and do my studying elsewhere. I only go to Hunt if I have time in between classes. The only times I have ever gone to Hunt were to meet teachers or get food. I only visit Hunt when someone else wants to study or meet there. I sometimes do work but often sleep or watch Netflix and eat. I don't go to Hunt as often as Wean, mainly because I am just looking for a quiet area to study most of the time rather than actually looking for external resources. Get food when I can't at any other time somewhere else I go to the library for the computer clusters and makerspace. I go occasionally. I have no issues with the library as it stands. Visit sometimes. I wish to study or focus on homework. The reality is I end up sleeping on the quiet study floor. I actually study or surf the Internet most of time. What I wish I did at the library is study more and read for fun. I am a frequent visitor. I study and sometimes check out books. I don't really visit. I currently go to use the computer cluster/get coffee. I wish I had more of an opportunity to collaborate with people in the library and I had a better understanding of what each space was meant for. I visit occasionally, to get work done when I need to get large amounts of work done and find other places distracting. I usually get some assignments done if I stay focused and concentrated but never all of it.

Place to study alone or with friends. Go a lot, don't get a whole lot done lol. I wish there were better books to use and more seating. I go pretty often though. What I actually do: color printing, scanning, occasionally food. Wishes: nothing in particular. Study kill some time. I visit at least once a week. I always bring my backpack because really want to do work but I'm super unproductive there because I can't resist going up to the fifth floor! The Hunt Institute of Botanical Documentation is amazing! I always spend hours in there. I don't really use anything in Hunt... except the nap pod. that thing's awesome! As far as getting stuff from Hunt... I always get lots of stuff from Maggie Murph Cafet Visit often? Define often. I visit probably about 3-4 times a week for a good chunk of time (usually 2-3 hours at least). I always go because I intend to get a lot done. However, 75% of the time, I end up browsing the internet for 2 hours. I go to the GCC and have meetings with professors. I want to have dance parties every night at midnight flashing the lights and having things go insane just to let everyone loosen up and calm down. I visit and work there. I often am procrastinating on work when I'm not rushing to finish work. I've noticed that I usually procrastinate on the third floor but the first, second, and fourth floors are pretty conducive to getting work done (personally). I study sometimes. Visit purely when in need to really focus on my work as a focus completely on HW and studying. Want to do: homework, visit sometimes. Actually look at memes, study a fair amount. Wish: study more, be cold less. Visit at least 3 times a week. I don't use the library as much. I like to study at Gates and at Delt more often. I chill with friends. Hunt isn't too conducive to studying, visit rarely, but when I do, I'm attempting to do work but about half of the time I'm there I'm just hanging out and chatting with friends. (I get work done the other half). Read, look for research content. Usually once a week. Visit once a month. I go to Hunt every week for Statistics lab. I go to the library everyday. I get work done there because I can't be at home since I just fall asleep. Study vs. study, it suits my needs but most of the time I still prefer my own room. I get work done at the library when I actually need to get work done and have no room for procrastination. I wish there were better spaces in the library where I didn't feel trapped so I could more easily just fall into the work. I get the sandwiches but there should be more tables to go there everyday. Study, study, often, eat VS. read. Study, study, sometimes. I use computers, sleep in the massage chair, get food from the cafe, use the video room. I wish it was more like Sorrel's, with outlets on the tables, more whiteboards, large tables that are not just for eating. Try to study. Wish there were accessible textbooks that I can borrow with more ease. Visit often (between classes I stay at Hunt). I occasionally go to the library to study on campus for anywhere from an hour to a few hours, and usually just want somewhere quiet to sit and work. Visit when I need to. Do what has to get done. Leave. I have literally never been inside Hunt. I go to Hunt a lot and my friends are usually there and we all study together. I study/work on homework in the library in the first floor. I go to

[survey highlights]

Regarding the bookshelves in the library, approx. 55% of people wanted to maintain them while 30% of people wanted removal. The other 15% wrote in answers or were undecided.

Floors ranked from most useful to least useful:

Floor 1

Floor 3

Basement

Floor 2

Floor 4

Other

Understanding student needs was a huge motivating factor throughout my design process. After reviewing more survey data, I could better picture how this intervention of parasitic architecture could function. The self directed objectives included: to create extensions of the architectural programmes already in place, to think about how customized furniture and building materials could best fit the use, e.g. collaboration vs. solo study.

Question 3: What floor seems the most useful to you?

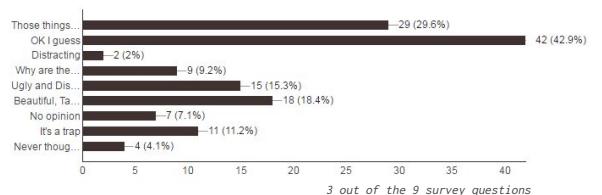


▲ 1/2 ▼

Question 5: Do you think the bookshelves take up too much space?



How do you feel about the fins on Hunt Library?



Amica, User Experience

dxb
DUBAI DESIGN WEEK
12-17 NOVEMBER 2018

Context

The Amica video follows the narrative of our ideal users, couples in a new city and organizations that hire international talent. This project was born out of my choice to take a design studio instead of an architecture studio. The School of Design partnered with Cognizant Technology Solutions on a design project for a semester-long, elective course taught by Wayne Chung called UX Design Tools.

What does your project do?

Amica helps newcomers navigate new social environments by encouraging them to connect with people and share experiences.

What inspired it?

Many people struggle to cultivate relationships when they have just moved to a new city, so we wanted to help people find a sense of community. We were cognizant of how social media can isolate people so we wanted to create an experience that's centered on bringing people together.

How does it work?

Amica is a speculative, artificially intelligent personal assistant that learns from inputs in the UI as well as spoken one on one conversations with the user. Amica then shows the user recommended events and groups as well as the individuals you may want to interact with. If built out as an app, it would use sophisticated Machine Learning and Natural Language Processing to better understand you as a person, your interests, and your desires and work with you to personalize feedback on finding events, people, and groups. Amica strives to encourage in person communication and community building.

What helps explain the importance of your project?

Our imagined user experience Design project situates itself in a great place to ask more questions about the role of designers and architects working with technological development values, principles, and decisions that will shape our future. How can responsible AI amplify human experience and what could our concept mean for the future of living?

Initial Concept



help newcomers navigate through an unfamiliar environment and build meaningful relationships

Concept Mapping & Workflow

Problem

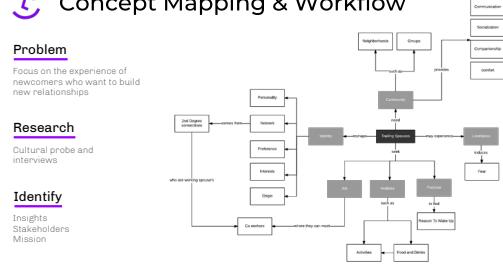
Focus on the experience of newcomers who want to build new relationships

Research

Cultural probe and interviews

Identify

Insights, Stakeholders, Mission



Interviews and Research

we then conducted interviews with

- a Korean Family who moved to Pittsburgh
- Randy, the creator of Randyland
- two School of Design Professors and their spouses (thank you to Dan Lockton and Stuart Candy)

On our visit to Randyland, one of the most welcoming places to newcomers and tourists in PGH, Randy shared with us his methods for talking to strangers and what inspires him to meet new people. Much of his inspiration comes from those interactions.

Then, we created journals to hand out to couples who moved to Pittsburgh recently, to learn more about their daily lives.



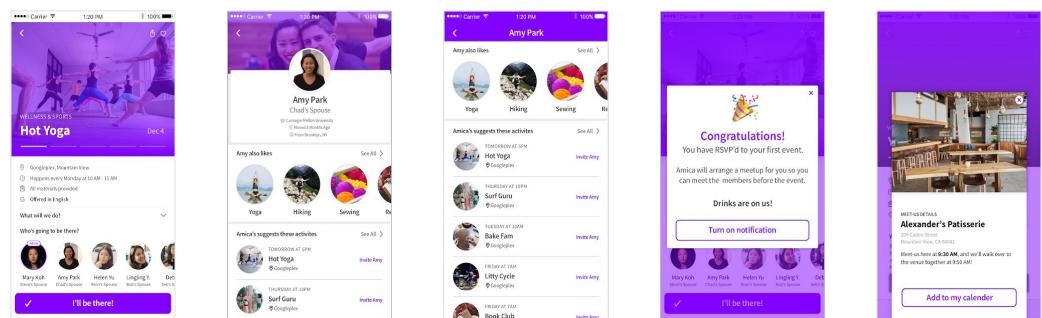
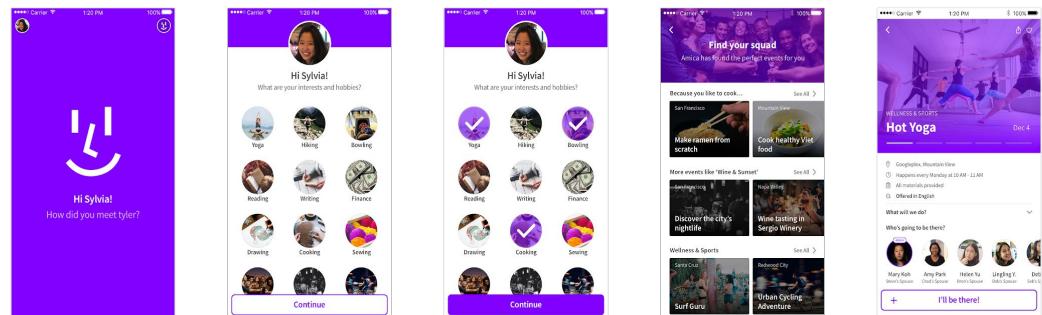
Affinity Diagram



After going through the interviews, we printed out all the notes and highlighted keywords.

With those keywords, we created an affinity diagram to categorize the things newcomers experience.

This helped us a lot to figure out what our platform should provide to satisfy user's needs, and to know what roles AI should play in adjusting to a new environment.



Designed by Joseph Kim, Tina Park, Emily deGrandpré in Tools for UX Design at Carnegie Mellon University, 2017

EnviroMe, User Experience

EnviroMe is a mobile app concept that encourages users to make better decisions for themselves and the environment. I collaborated with 2 other students on this 4 week project. Our directive was to start with carbon footprint data referenced [here](#) to empower users, in this case, college students and young professionals, to think about their choices and allow them to set sustainability goals. My role was primarily research and content production (not UI) as well as thinking about AR as a way of accessing information on the sustainability of consumer products to make more informed purchases.



EnviroME

A walkthrough of the main features of EnviroME

Interview Insights

User Limitations

Selective Attention

They are most focused on school, their careers, and personal health

Avoidance

They understand the issue but don't want to look for a reason to care

Access

They lack quick or on demand access to relevant information



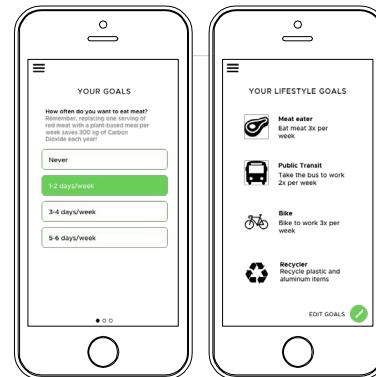
Conclusion

- One-stop educational & tracking resource
- Provides flexibility for busy students
- Focus on personal improvement



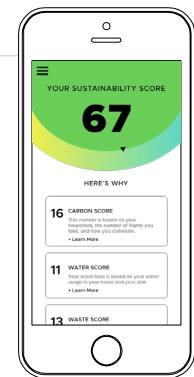
Profile Creation

You tell the app about your aspirations and current lifestyle



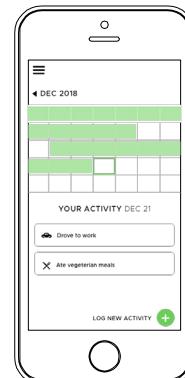
Sustainability Score

A quick indication of how you're doing



Activity Logging

A non-intrusive way to collect data and update your score



Product Score

Informing consumers about the impact of their choices

