



OBSERVATION JOURNAL

TAZZA D'ORO CAFÉ

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2017

INTRODUCTION

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Favorite Animal: Baby Lion
From: Philadelphia, PA, USA

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Favorite Animal: Bunny
From: Beijing, China

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SELENA ZHEN

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From: Warsaw, IN, USA

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CHRISTINE ZHU

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BODY+SENSES

Gates Hillman Center Tazza D'Oro Café

When investigating the way accessibility and design can integrate into architecture, one can start to explore solutions for how the disabled or differently abled experience "everyday activities." Gates Hillman Center is the center point of Computer Science at Carnegie Mellon University and is a major destination for hundreds of students every day. In the building, the busy café on the third floor serves as a perfect starting point to begin our investigations into the experiences of body + senses.

AREAS OF ACCESSIBILITY

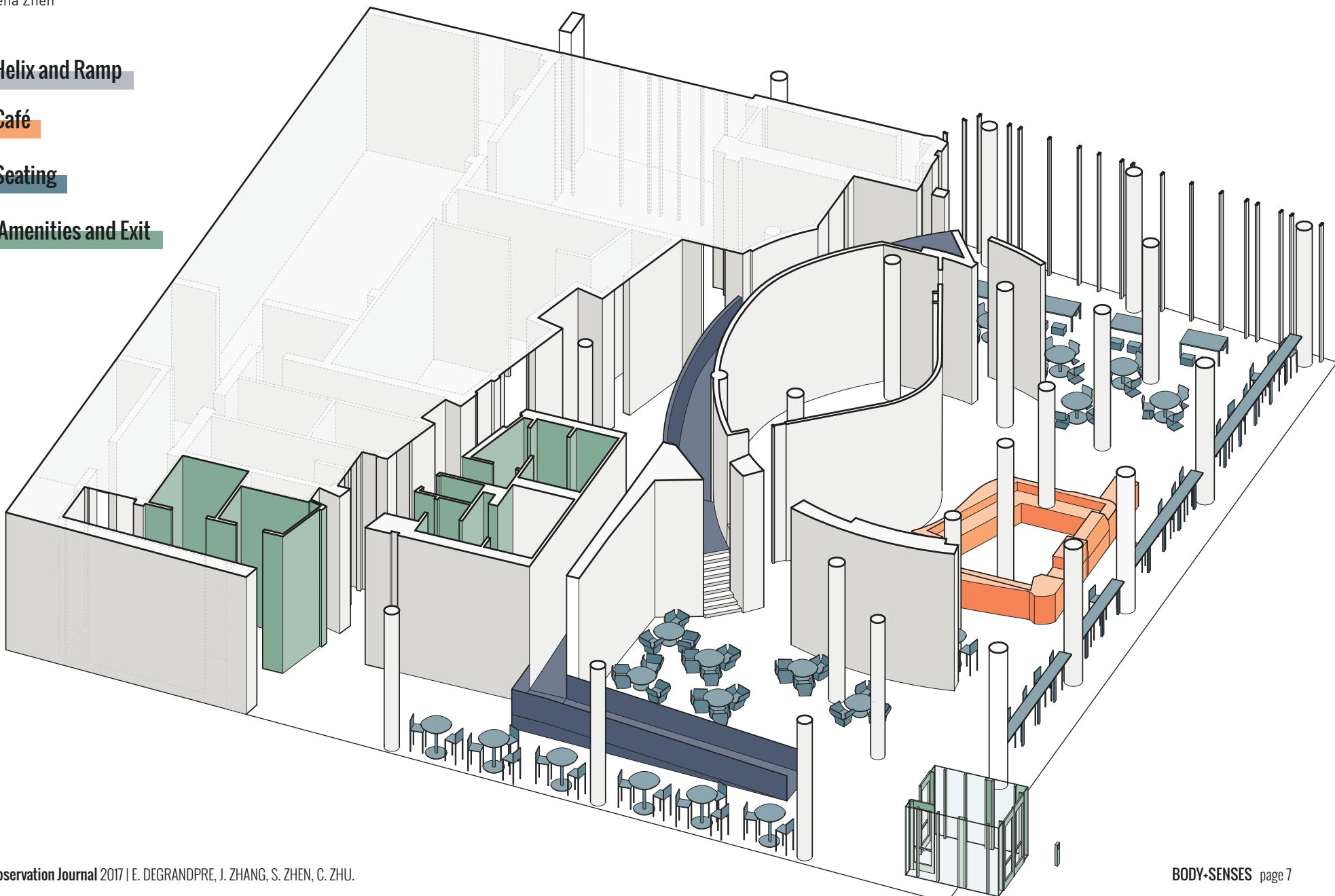
Selena Zhen

1. Helix and Ramp

2. Café

3. Seating

4. Amenities and Exit



1. HELIX AND RAMP

Emily DeGrandpre & Selena Zhen

The outdoor entrance ramp to the Gates Hillman Center, or otherwise known as the Randy Pausch Bridge, is qualified as a convenient ramp for wheelchair occupants. The ramp follows the rules listed in Section 302.1 and 405.7 of the ADA manual. It is stable, wide and firm with a capacious landing area located

at the end that allows the wheelchair to change direction easily. The entrance door is an automatic wheelchair accessible door but it is quite narrow and there is not enough room to comfortably turn 90 degrees to enter the door, once the button is pushed. Many people stopped and offered to hold the door.

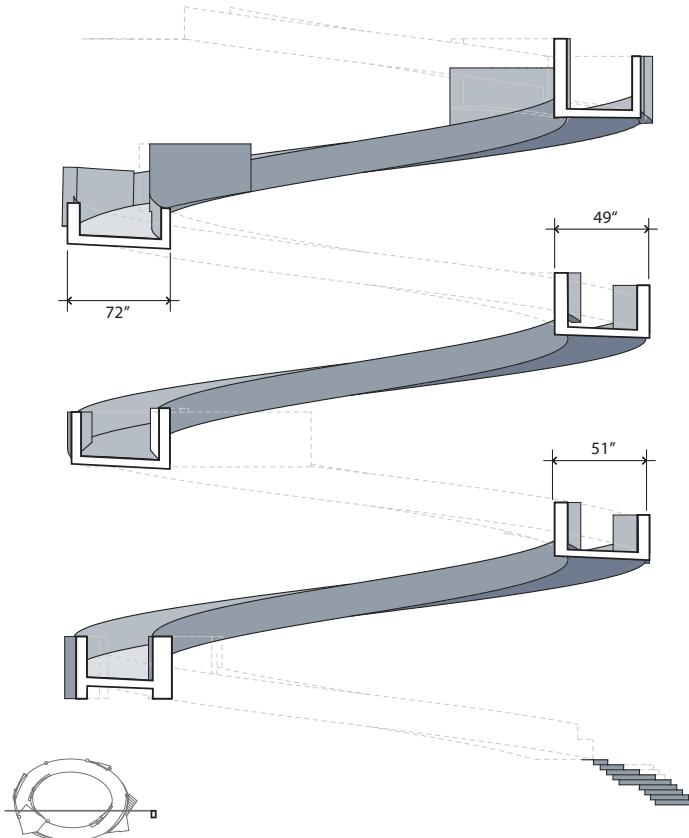


Diagram: Width of hallway at different points in the Helix.

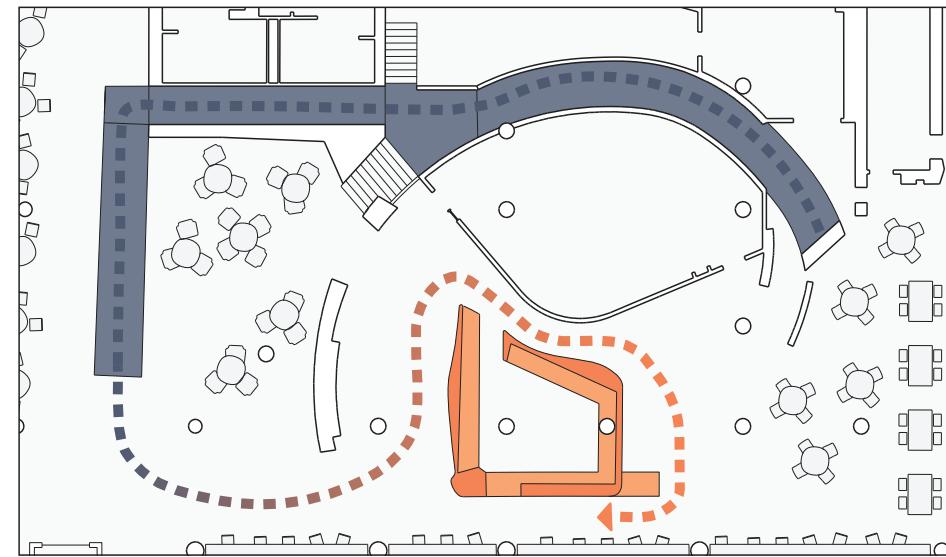


Diagram: Entering the Café from the ramp.

Once inside Gates, there was a clear path to start down the Helix but the biggest problem was with the slippery floors and danger of rolling down the ramp. Once the wheel chair started rolling, it was extremely hard to stop, thus putting the person's hands at risk of too much friction and extreme discomfort. The oval shape of the ramp also created narrow spaces which made going down a curvilinear path difficult to control. According to Section 302.1 of the ADA, "Floor and ground surfaces shall be stable, firm, and slip resistant," something that the Helix does not have.

After exiting the Helix, we entered a short landing where we could see into part of the café . At this landing, there were short stairs to both our left and right that led down to the café level, as well as a long ramp directly in front of us. Upon taking this ramp, we discovered that those

who were disabled or restrained to a wheelchair would have a lot of difficulty controlling their speed on the slick floor, similarly to the experience down the Helix ramp. Once on the café level, the wheelchair has only a few accessible routes because of the variety and density of furniture and students; although the café ordering and register area were directly within our view, it was congested with students so we decided to go around the counter to enter the line.

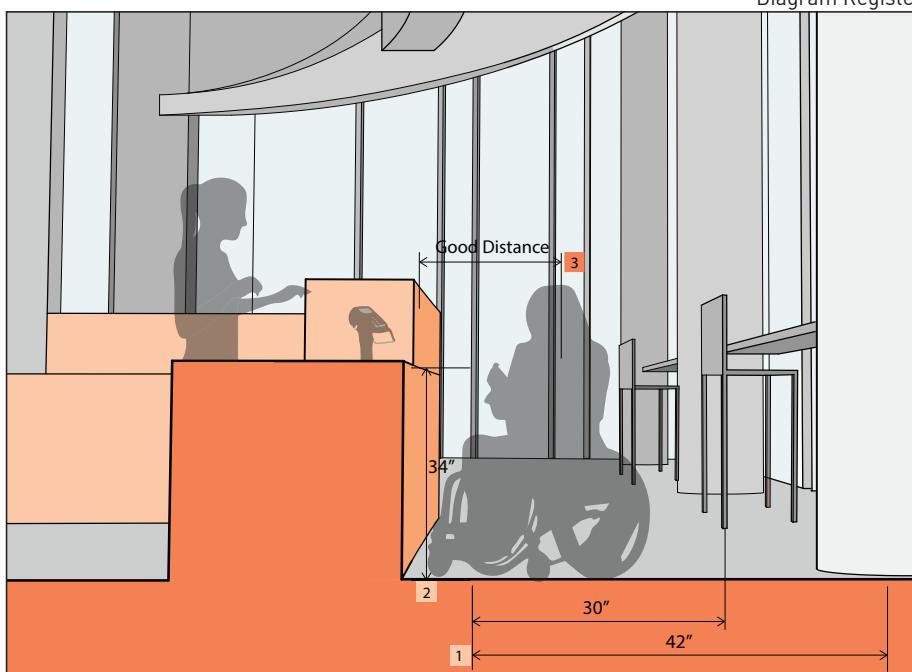
SUGGESTION:

In order to solve the slippery ramp issue, there should be some sort of non-slip finish or stick on the ramps. This would greatly increase the friction put on the wheelchair when going down the long helix, and would improve the safety of users.

2. ORDERING

Christine Zhu

When considering and investigating convenience of the café for wheelchair occupants, one group member ordered food at the café counter. Unless they go around the entirety of the counter, entering opposite of the ordering line is difficult, for the narrow spacing between the counter and register makes it hard for the wheelchair to turn a complete 180 degrees. When making an order, however, the register and credit card reader is a perfect height, with no strain on this activity.



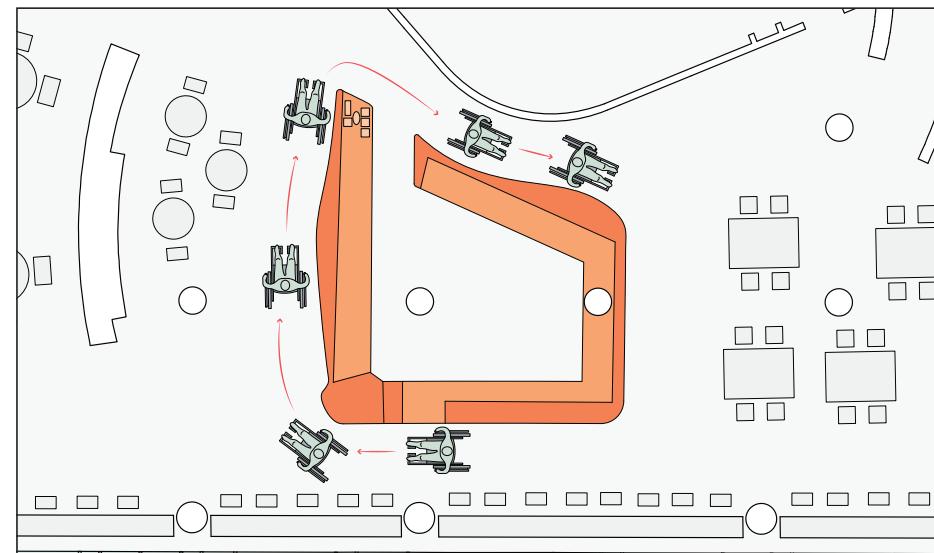
1 Distance too narrow for comfortable 180 degree turn (ADA Section 403.3 Turning Space)

2 Comfortable countertop height.

3 Good distance between credit card reader and wheelchair occupant's reach.

SUGGESTION:

In order to maximize the space between the ordering counter and the tables (#1 on the register diagram), chairs should be removed from alongside the counter. This adds another row of space that would be taken away from the long line that forms during peak lunch and dinner times. Physically lowering the height of the entire counter by one foot would eliminate the danger of the countertop. Also adding a shorter table for condiments halfway between points 1 & 2 would allow for more accessibility distance-wise and heightwise.



Sequence of ordering: register, condiment area, and seating.



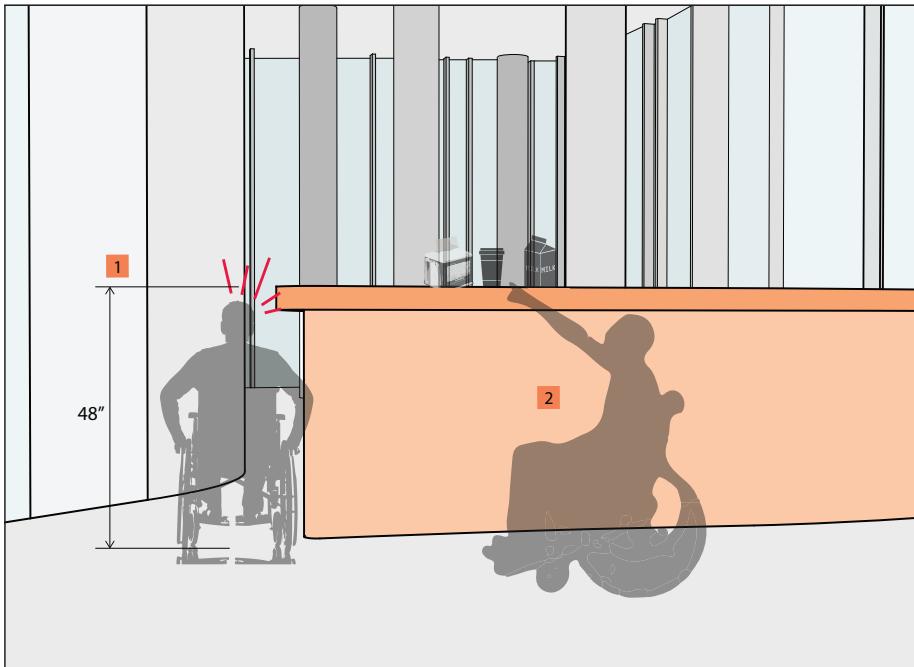
Photos: Ordering at Tazza D'Oro



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3. SEATING

Jingyan Zhang



1 Dangerous height of counter.

2 Inability to reach condiments.

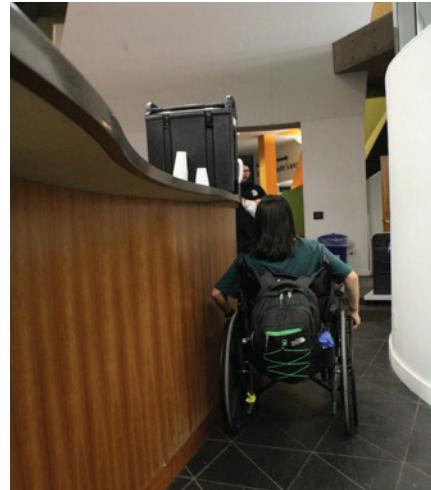
Diagram: Café Counter



ABOVE: Countertop Diagram

BETWEEN RIGHT: Photo: Reaching for condiments

BETWEEN RIGHT: Photo: Countertop to head relationship

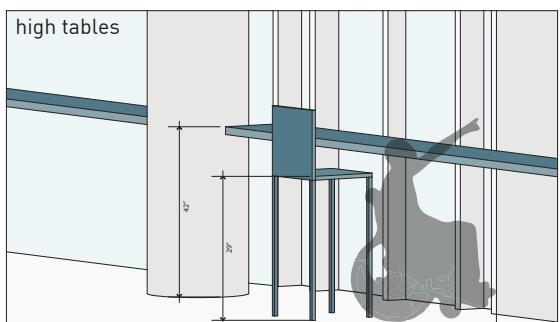
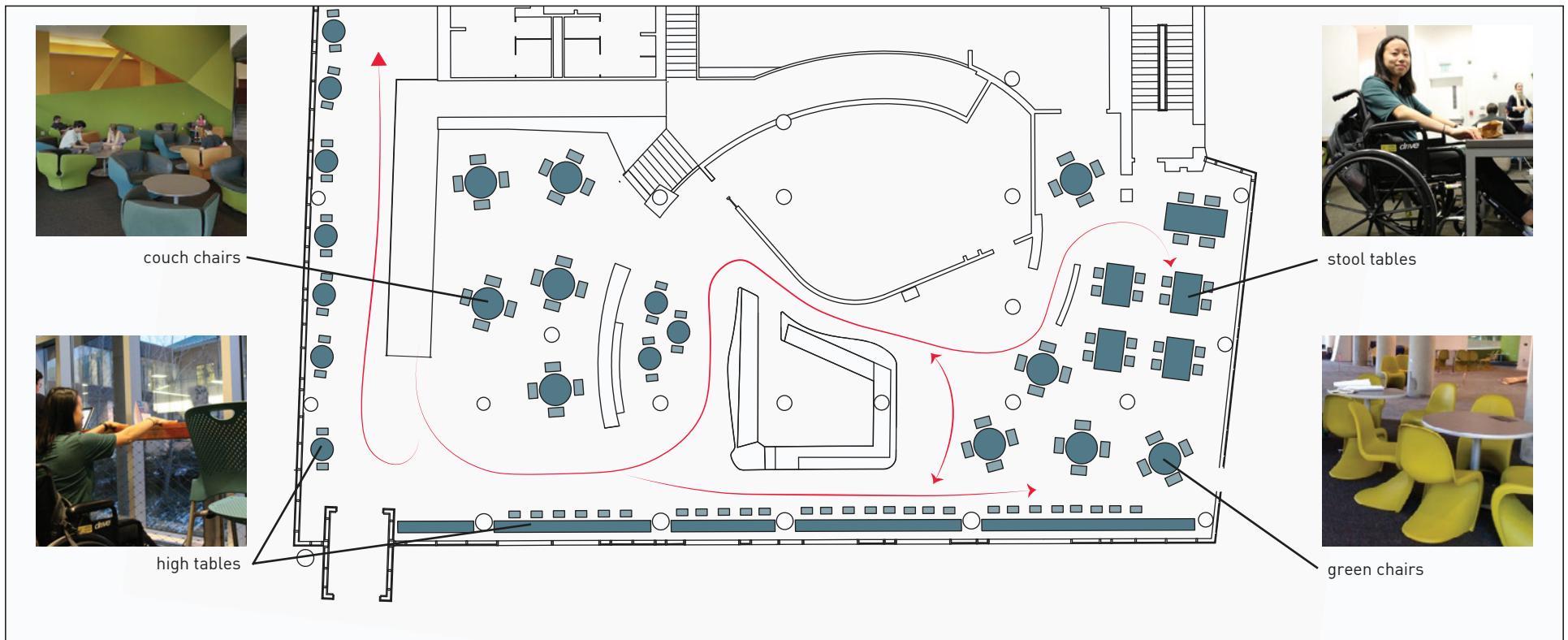


There is not a path specifically designated for a wheelchair to move around within the seating areas. In order to find a seat, wheelchair occupants have to move through the narrow spaces between tables, making it a very inconvenient experience. Furthermore, between the four different types of table/chair combinations located in this Café

, only two of them are easily accessible for wheelchair occupants. The tall chairs and bar tables along the West wall are way too high for wheelchair occupants to reach, while the stools and short tables located at the South side of the room are too low for someone in the wheelchair to comfortably sit, eat, or study at.



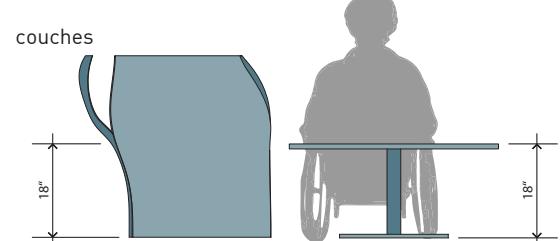
Photo: Searching for seating.



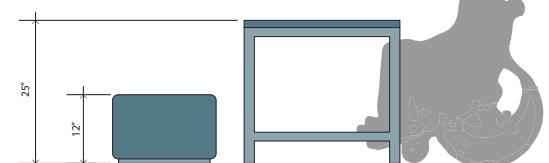
SUGGESTION:

To achieve a comfortable experience throughout the process of finding seats, two methods should be applied. Firstly, a separate path should be designed for wheelchair occupants to move around the Café area. Either adding another row of space at one side of the wall

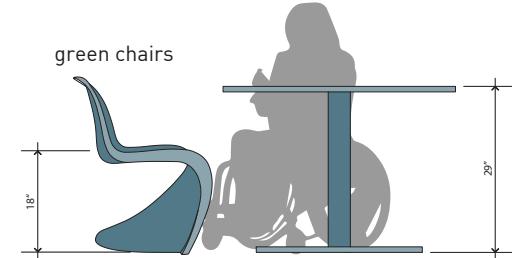
or expanding the current existing paths are good improvements. Secondly, the amount of tables and chairs that currently crowd the area should be decreased, thus more space would give more accessibility to the disabled or differently abled. Consideration of changing the height of chairs can also be applied to the future improvements.



stool tables



green chairs



4. AMENITIES AND EXIT

Emily DeGrandpre & Selena Zhen

Entering the bathroom was extremely difficult. One must overcome the 0.5" rise in floors (a thick strip of material separating the two different types of floors) while also pushing open the door and moving through the door frame. The size of the spaces in the bathroom seemed almost reasonable but there could have been more room for rotation and turning. Washing hands was doable

except the paper towel dispenser were across the room, which required backing up with wet hands and turning around to face the other side of the room. Exiting the bathroom was slightly easier than entering, but it required relying heavily on the door handle to both hold it open and pull oneself through the exit, again met with resistance at the floor divider.

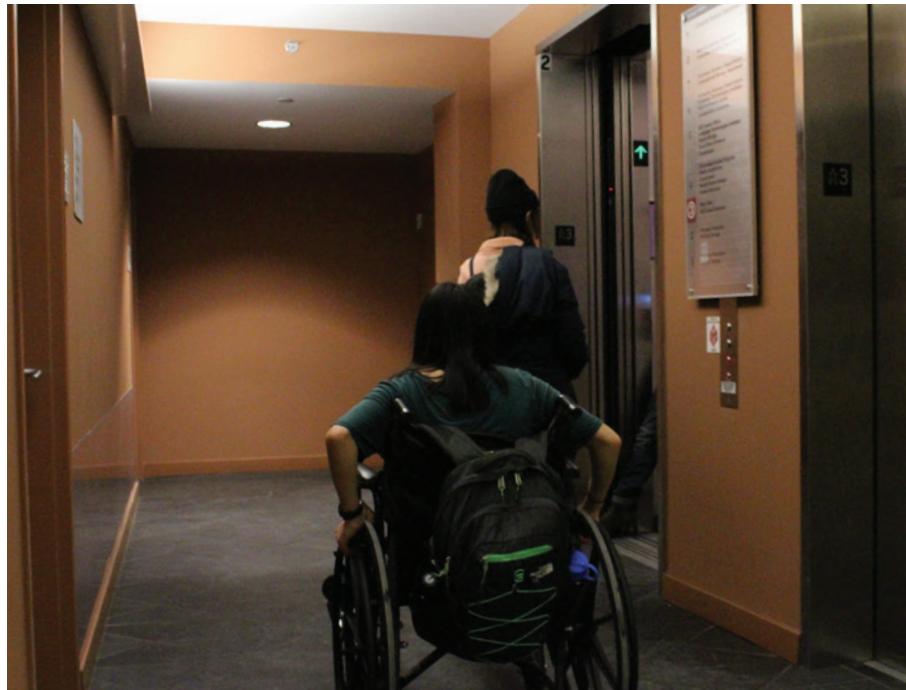


Photo: Elevator Hallway



TOP: Photo: Entering and Exiting the Bathroom



BOTTOM: Photo: Washing and Drying Hands

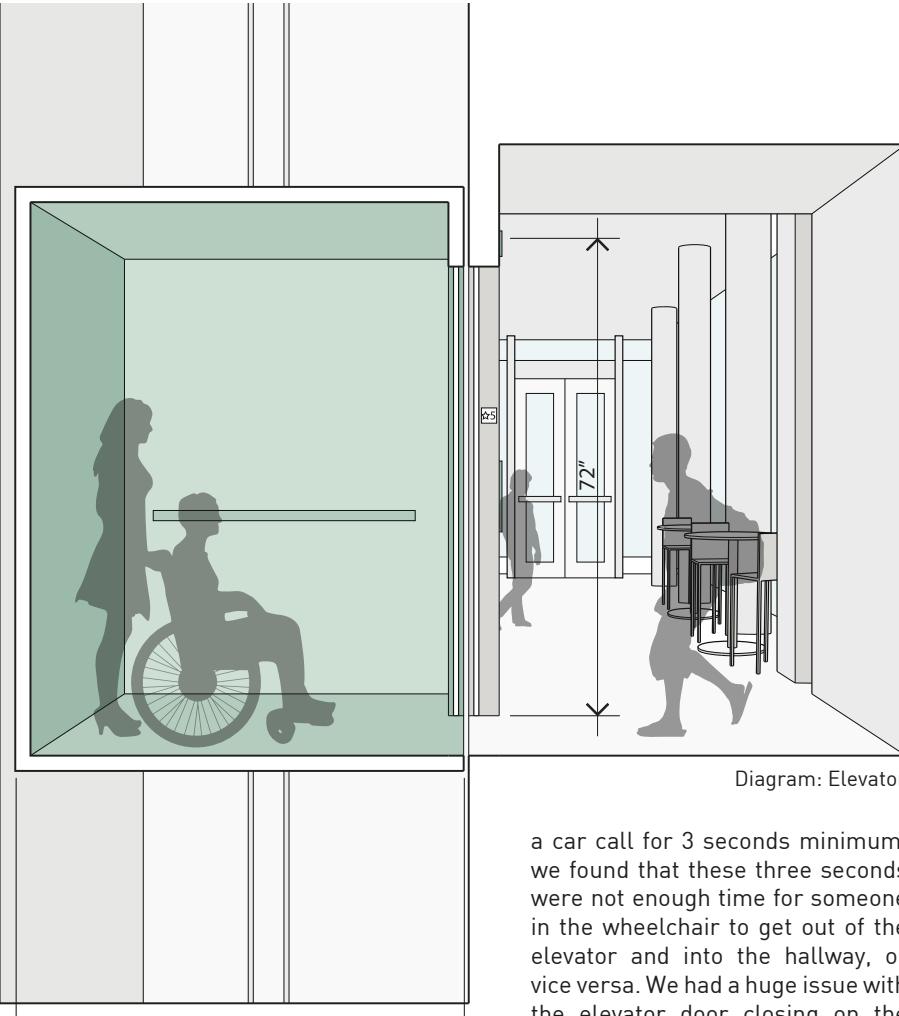


Diagram: Elevator

The elevator provided near the café complies with all of the ADA rules for elevators. For example, the visible signals (407.2.2.2) above the entrances are at least 72", the hoistway signs that provide floor destination (407.2.3.1) are at least 2" in height, and the elevators' dimensions (407.4.1) all exceed the width requirements for a standard wheelchair accessible elevator. Although the elevator also complies with Section 407.3.5: Elevator doors shall remain fully open in response to

SUGGESTION:

Increase the amount of time the elevator stays open, since 3 seconds is not enough time for a disabled/differently person to comfortably exit the elevator.



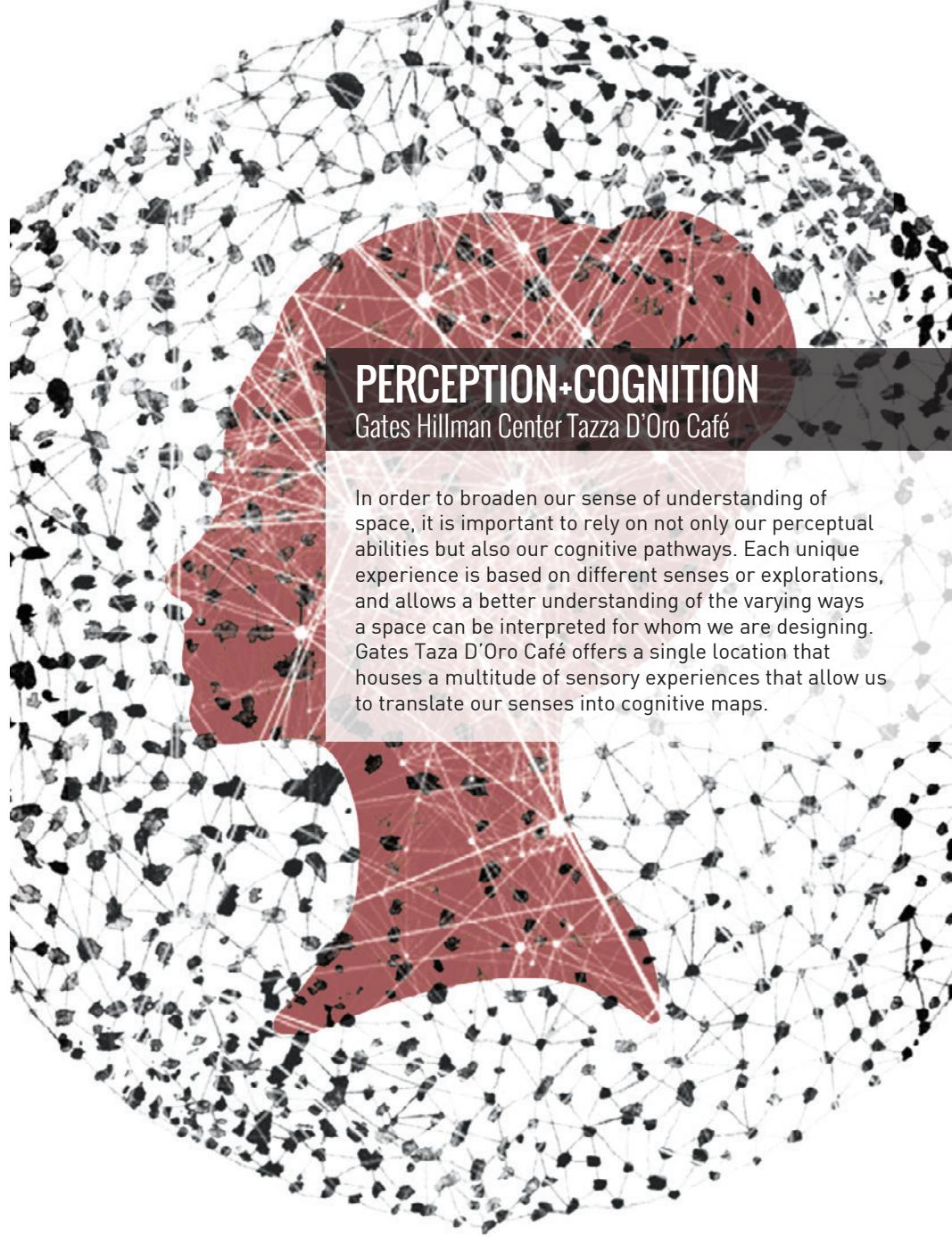
Diagram: Exit to Newell Simon Hall

The exit to the back of Newell Simon Hall is the main exit of this floor and is formed from double doors in the corner of the café . Each single door measures 36" across and follows ADA's Section 404.2.3 Clear Width, which states that door openings shall provide a clear width of 32." Regardless of the ADA code, we discovered from experience that this standard door size is still concerning for

those who are disabled, since squeezing through this doorway risks arm and finger injuries if one is not careful.

SUGGESTION:

Enlarge the width of exit doors to the outside, to reduce the risk of harm to limbs.



PERCEPTION+COGNITION

Gates Hillman Center Tazza D'Oro Café

In order to broaden our sense of understanding of space, it is important to rely on not only our perceptual abilities but also our cognitive pathways. Each unique experience is based on different senses or explorations, and allows a better understanding of the varying ways a space can be interpreted for whom we are designing. Gates Taza D'Oro Café offers a single location that houses a multitude of sensory experiences that allow us to translate our senses into cognitive maps.

ACTIVITY

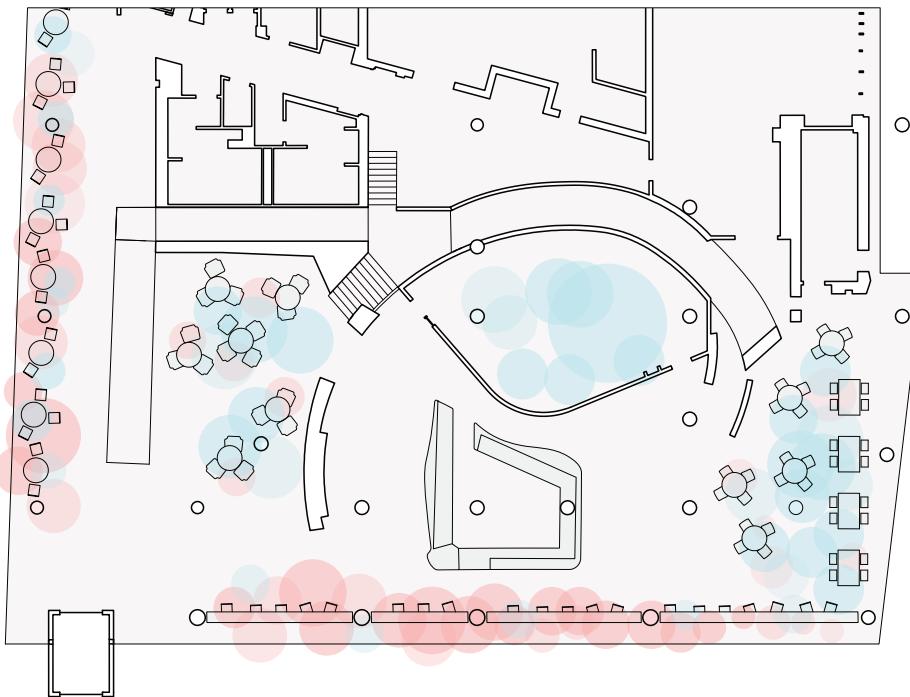


Christine Zhu

PATTERN OF ACTIVITY USE

- eating
- studying

Through observing Tazza D'oro in Gates, it is noted that people partake in two main activities, eating and studying. The convenience of the central Café draws in both groups who are looking for a nice meal and conversation, while the ambience and layout of tables also draw in those who desire to study. These two patterns overlap since the accessibility of the Café allows for the easy access of grabbing a meal or snack.

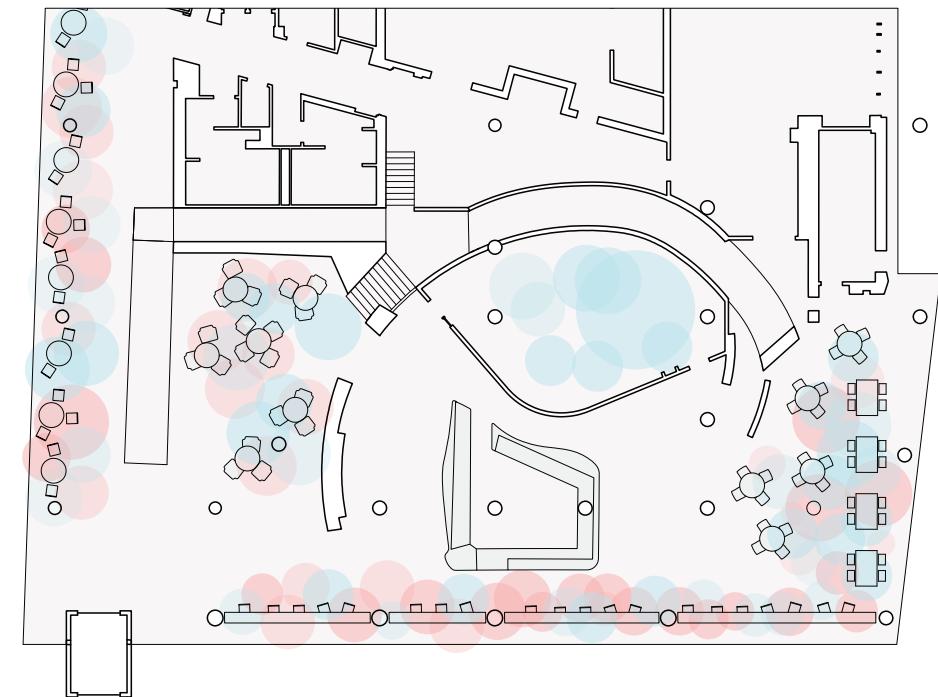


Non-Peak Hours (9am-11am, 2pm-5pm)

Group tables located in the central area and right of the Café are in clusters that increase collaboration between users, in contrast with the more evenly spaced and taller tables near the windows that allow for individuals to eat with a view of the outside.

LUNCH & DINNER TIMES

More people are prone to come to the Café and order food at these rush hours. People studying there already have the convenience of the Café as they study, creating a more equal distribution of activity.



Peak Hours (11am-2pm, 5pm-7pm)

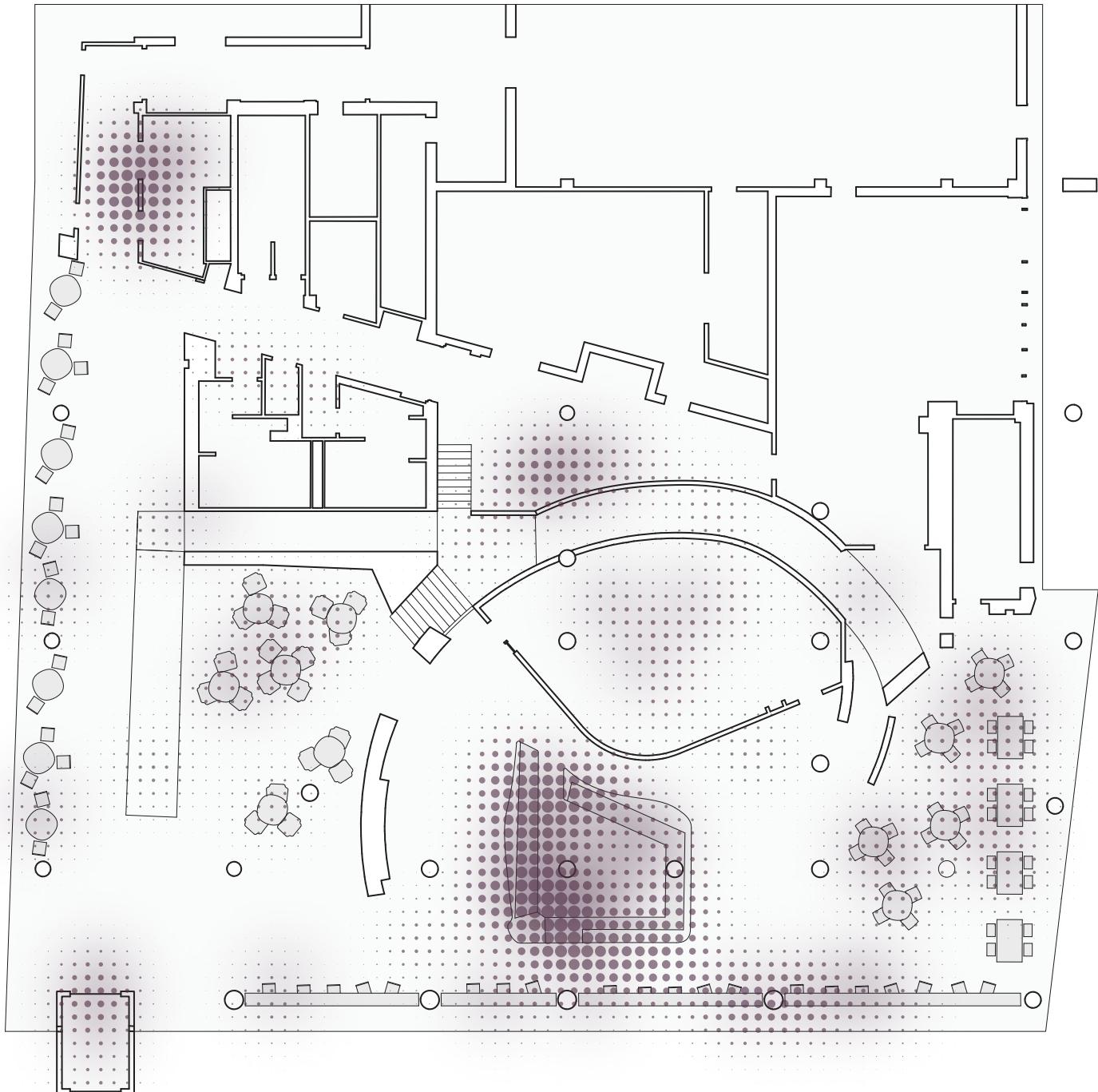
AUDITION



Selena Zhen

Audition, or the sense of hearing, is one of the 5 valuable traditional senses. It gives one the ability to sense the world through sound, and perceive and interpret the environment which surrounds them. Because Tazza D'Oro is a Café, but is located within an academic university building, it is consequently a mixture of mainly 2 types of activities: eating and studying. This starts to rank areas of the floor based on sound density. For example, the Café is the loudest area of the third floor, since it includes equipment, conversation, and traffic. Other areas with heavy sound density include the elevators, and larger group study spaces. However, the areas with smaller group tables and single seats are significantly quieter, since many of these spaces are occupied by studying students.

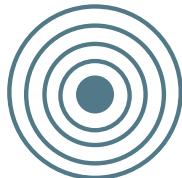
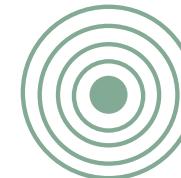
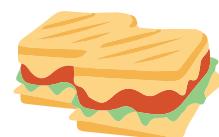
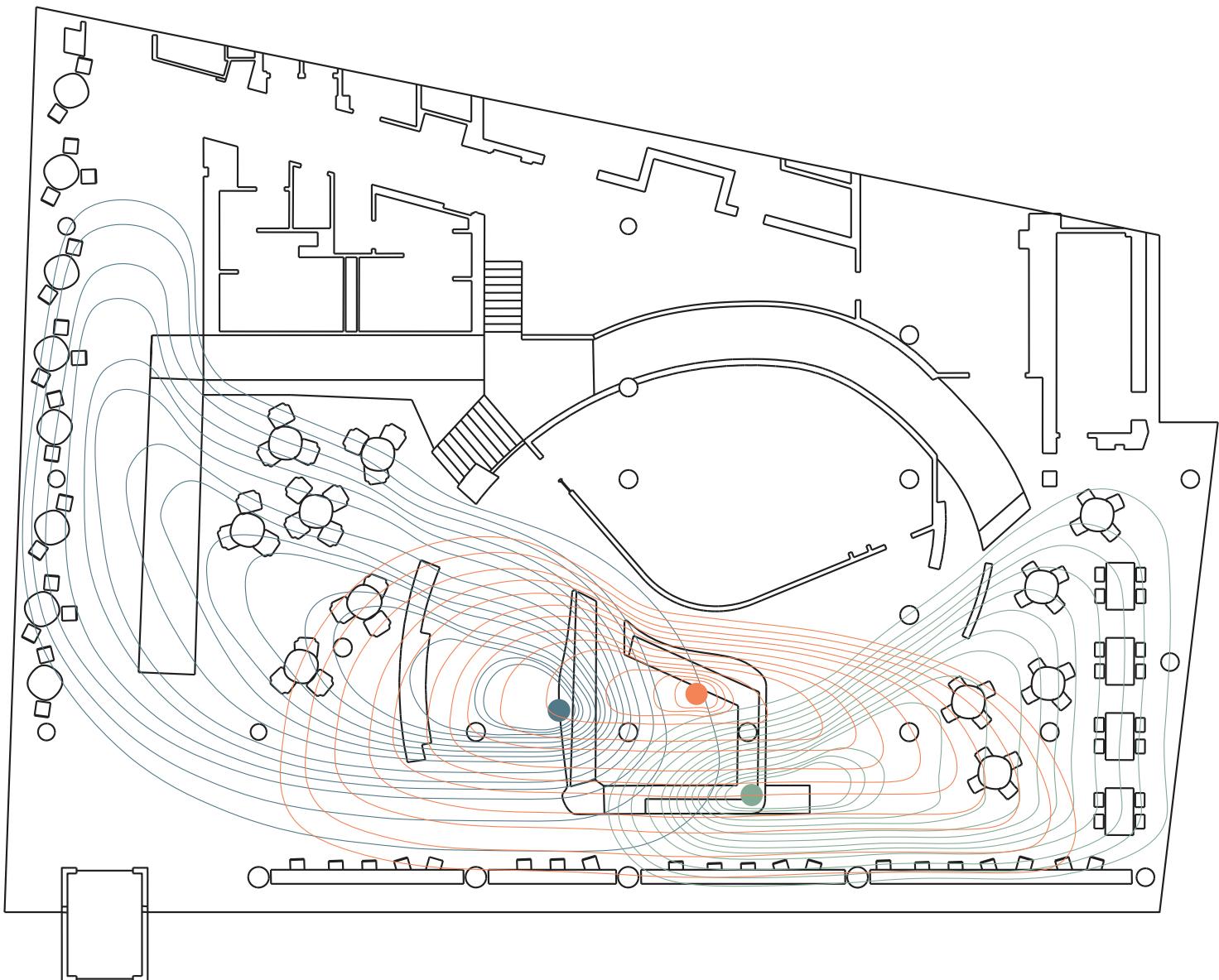
In this map, the highest areas of sound density are represented by the scale and transparency of an overlaid grid of circles.



OLFACTION

Jingyan Zhang

Tazza D'oro serves two types of meals: sandwiches and salads, as well as different coffees throughout the day from 7am to 7pm every weekday. Through our observations, people are most likely to study and eat at the same time. The smell of the food and drink rises and spreads from the central point at the counter, then expands almost to all the tables in the area when students decide to eat and study at the same time. It is difficult to separate the smells and assign them to any specific area in the Café ; however, people normally prefer to enjoy coffee while they are studying on the couches and the taller tables in the left part of the Café and to eat food at the tables near the counter and the short tables in the right part for a better view of outside.



TRAFFIC

Emily DeGrandpre



PERCEIVED TRAFFIC PATTERNS BY TIME OF DAY:

After observing Tazza during peak lunch hours (11am-2pm) and asking students who study in the Café what the morning hours are like, these maps primarily show patterns of movement, resulting overlapping circulation paths, and a representation of activity concentration.

Each diagram shows entry and exit points (2) along the right hand side and one along the left side. Where the flow of traffic is heavy, the movement is often slower, for example the line for ordering food. Most people who come from

outside enter from the Newell Simon exit (top left) or from the stairwell, while people already in classes or elsewhere in gates would come from the elevator. The walkway adjacent to the pay counter is the clearest path to the opposite side of the Café , unless there is a long line. However, queues and heavy traffic often happens around the Café counter, causing students to be forced to find another route. Where there is heavy traffic, the movement is often slower, for example the line for ordering food.

TRAFFIC LEVELS

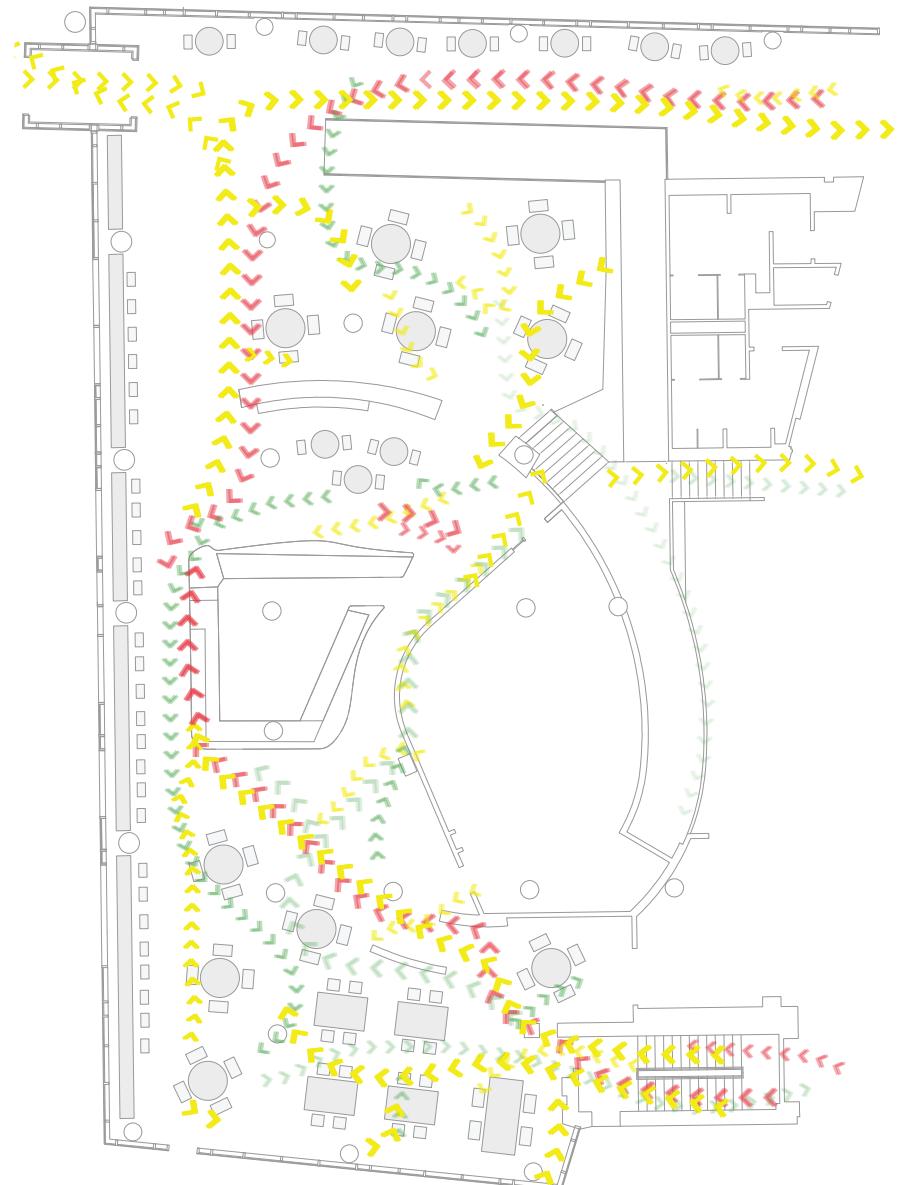
▶ heavy

▶ medium

▶ light

MORNING: 7am-11am

The morning hours of the Café usually consists of people grabbing a quick coffee or pastry before class. Many students also tend to arrive early before their classes, grab food, then sit and work at the tables around the Café . Therefore it is represented as busy with moderate waiting time.



AFTERNOON: 11am-2pm

The afternoon consists of peak lunch hours, serving both Computer Science and Non-Computer-Science majors; as a result, the patterns become inundated with red.



LATE AFTERNOON / EARLY EVENING: 2pm-7pm

The later afternoon mostly consists of mild traffic but has possible longer wait times for food between peak dinner hours of 3pm-5pm. From 5pm-7pm, more students tend to settle in and sit at tables to study, with a much slower influx of new people. More people enter and occupy the Café seating from the elevator side of the Café past 6pm.



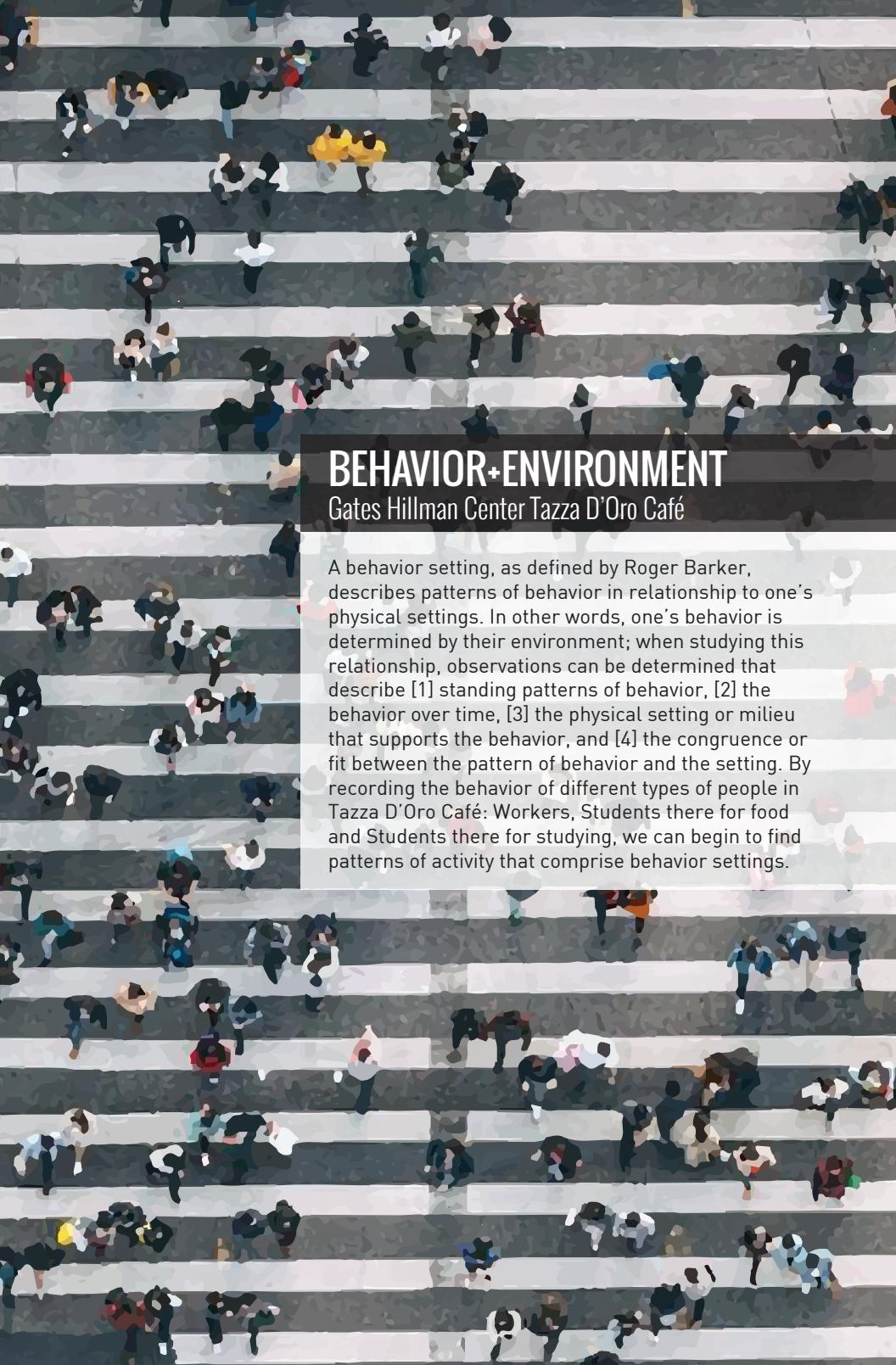
COMPARISON



In mapping our group's perception of the area around Tazza D'Oro, each person in our group chose a different sense or exploration to portray in order to understand the different levels of phenomenon felt in a single space. The four categories we focused on were daily patterns of use (for the two most popular activities, studying and eating), noise level, smell, and pedestrian traffic congestion. The same floor plan was used for consistency which allowed ease in comparing and viewing the different sets of information, but style of representation was up to the group member and the use of a key added to clarity between the maps.

After comparing the four, it is interesting to see that although each map was based on the individual's own experience in Tazza, the four senses do tie together. Pedestrian traffic has a direct correlation to noise level, where depending on whether it is peak hour (11am-2pm)

noise will be relatively heavy as people rush to class and wait in line for food, in contrast with hours of 4pm-7pm where the flow of people decrease, causing noise levels to even out. Activities such as studying and eating also have a direct correlation to noise levels, and similar to traffic, these activities are influenced by the hour and whether it is lunch or dinner time. How far the smell of different food wafts is seen as coming from the register counter, and branching out to the seating areas, potentially influencing where someone will sit and eat, or sit and study. All maps except for the activity mapping utilize the counter as a central point where the cognition stems from, such as food smell, noise level from machines and making the food, and a higher density of traffic from the line ordering food at the register. If the activity map changed its focus point from "studying" to the more general term of "working," highest levels of activity will be shown at the register, just like the three other maps.



BEHAVIOR+ENVIRONMENT

Gates Hillman Center Tazza D'Oro Café

A behavior setting, as defined by Roger Barker, describes patterns of behavior in relationship to one's physical settings. In other words, one's behavior is determined by their environment; when studying this relationship, observations can be determined that describe [1] standing patterns of behavior, [2] the behavior over time, [3] the physical setting or milieu that supports the behavior, and [4] the congruence or fit between the pattern of behavior and the setting. By recording the behavior of different types of people in Tazza D'Oro Café: Workers, Students there for food and Students there for studying, we can begin to find patterns of activity that comprise behavior settings.

STUDENTS - STUDYING

Emily DeGrandpre

Behaviors of students studying at the Tazza café may be influenced by the types of space and furniture arrangement offered within the floor plan, the materials that are used, and the sources of power or light available. This diagram shows the way people are working and where.

Partitions:

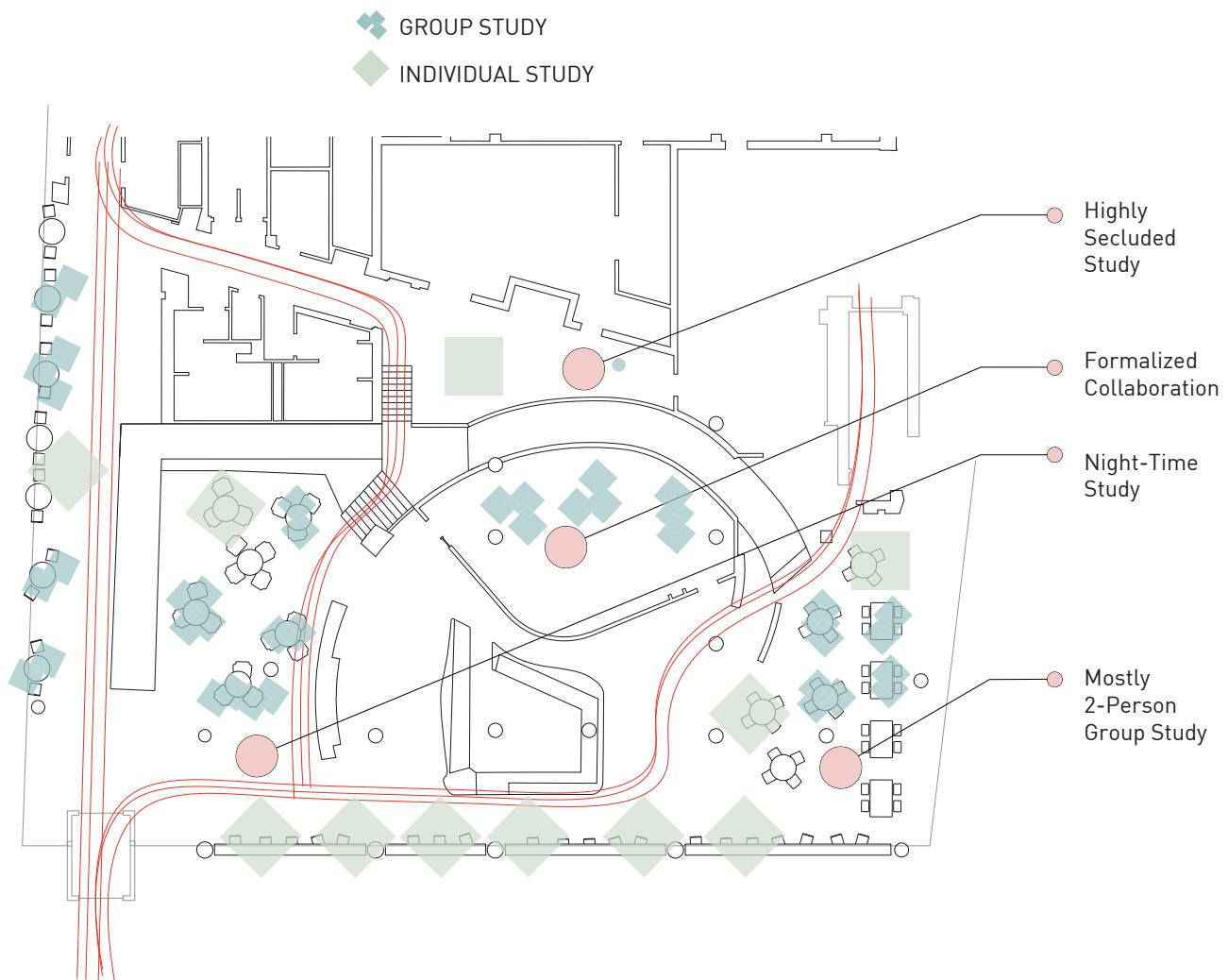
The major circulations were used to loosely divide the space. The first area is the column of linear tables which comfortably sit two directly across from each other. It is quite difficult to get anything done in this seating because of the constant passerby and noise and people usually are seen talking here. The second area of occupancy is the center, including the linear row against the window with individual seats, students here are typically studying alone but may be eating as well. The third being the south most side of the building. This area gets extremely dense with students attempting to work on their laptops between the hours of 11am-3pm.

Day vs. Night:

During the day there is ample light and students study everywhere; At night however, the large window on the south side of the building (facing Doherty) creates vulnerability because the interior is illuminated. The students who study at night at Tazza typically meet in small groups on the north side where they sit comfortably in soft rolling chairs and don't usually use the low tables.

Day to day:

There is a lot of eye contact between people in the building, because of the proximity and the different viewpoints one receives from sitting in different directions in relation to other people. The flows of people that come and go are frequent and are noticed. There is a tendency to overhear many random conversations as well. While I was observing, someone was not looking where they were going and tripped dramatically over a laptop cord in the ground, ripping the other end out of the person's computer. They did not figure out where the laptop cord should return to and looked around helplessly.



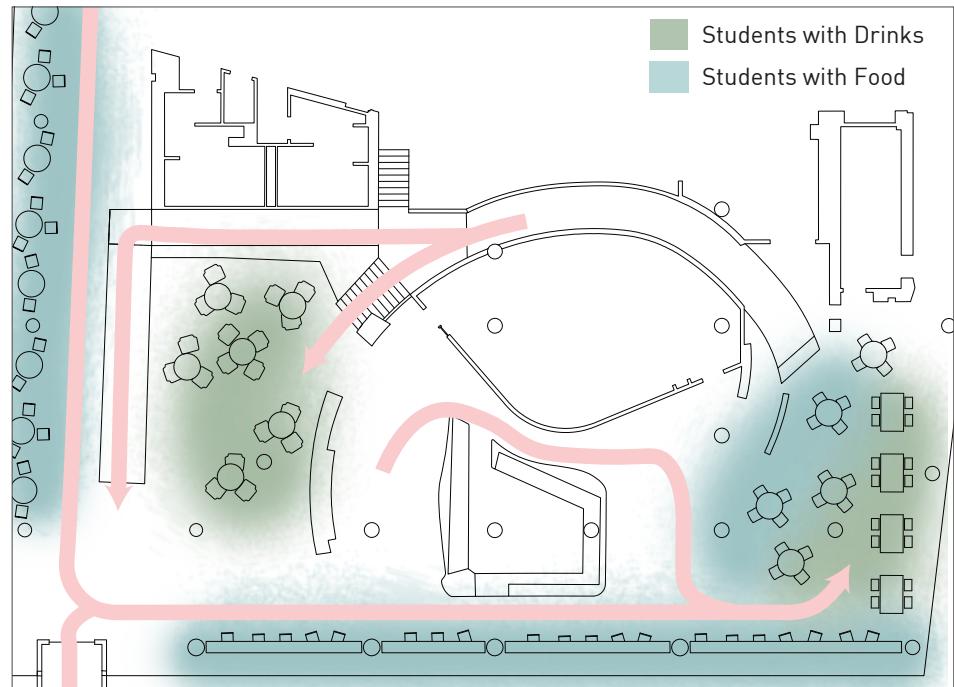
STUDENTS - FOOD

Jingyan Zhang

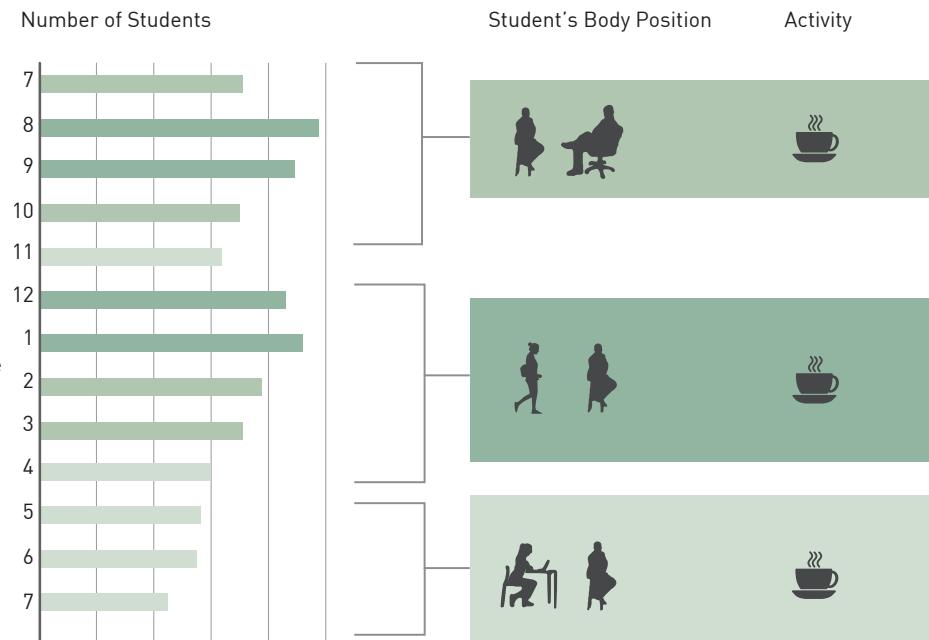
Through observations of students who came to Tazza D'Oro Café to eat, two different kinds of students emerge based on the item(s) they came to purchase: drinks vs food. The boundary of their actions here is limited to the areas of seating available.



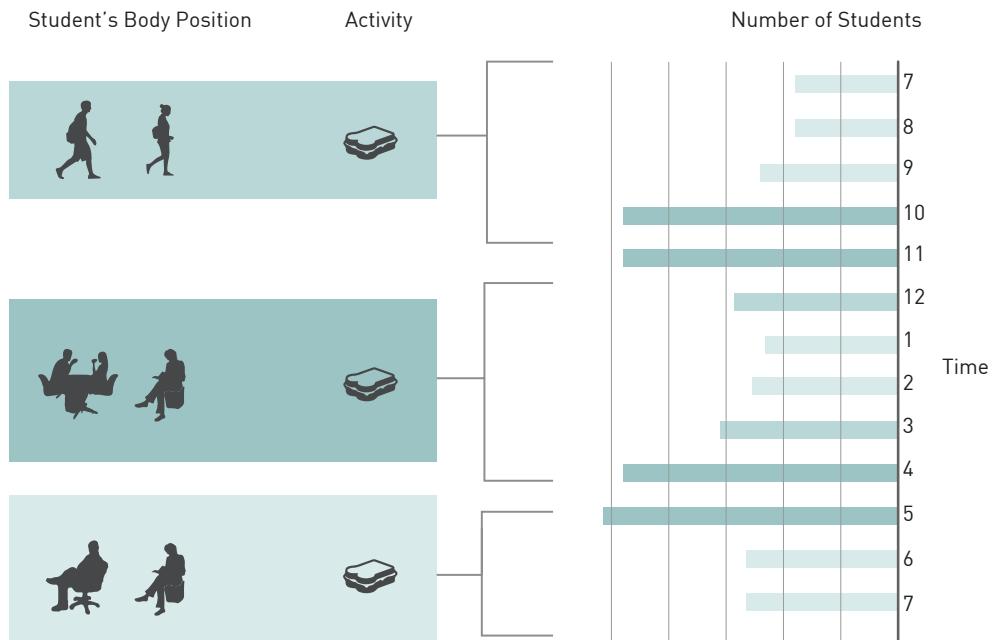
Students who buy coffee or hot drinks normally come to Tazza during the morning and lunchtime, and they appear to prefer to sit around the sofa chair and the low chair areas, where they can chat with friends or take some time to relax. Those tables are quite low and accommodate for the students who enjoy casual studying with just a beverage. On the other hand, students who purchase hot food are more likely to sit on the tall chairs against the walls, where the table and chair height allow for a more comfortable meal.



STUDENTS WITH DRINKS



STUDENTS WITH FOOD



WORKERS

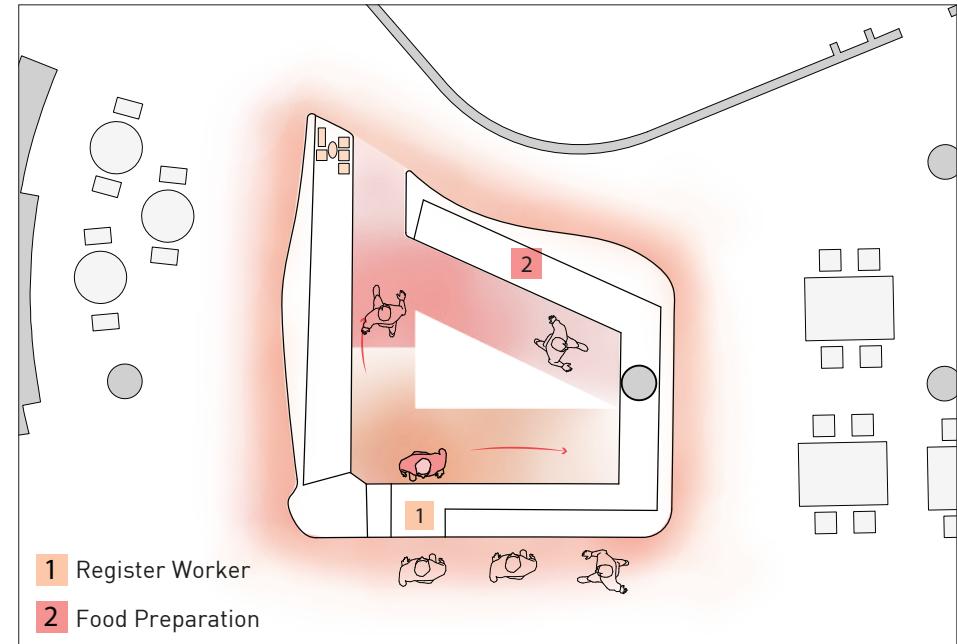
Christine Zhu

The physical setting of the counter creates a boundary that allows for constricted areas of movement for the workers. The workers are separated into two groups, the Register Worker (takeing orders) and the Food Preparation Workers (ones behind the counter preparing the hot food).

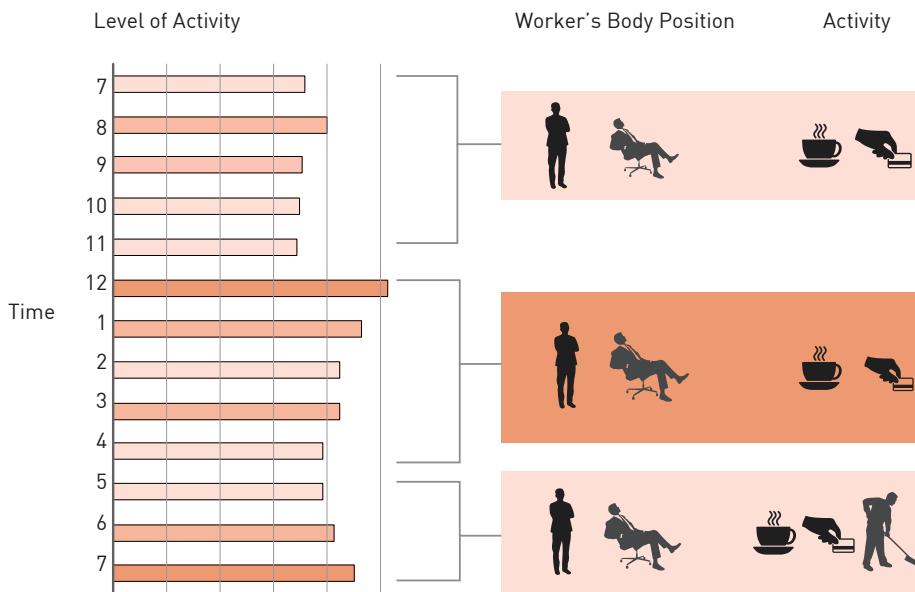


The workers actions are enabled by requests from customers. Ones who order coffee and premade food motivate the Register Worker to act, while the ordering of hot food is taken care of by the Food Preparation Workers.

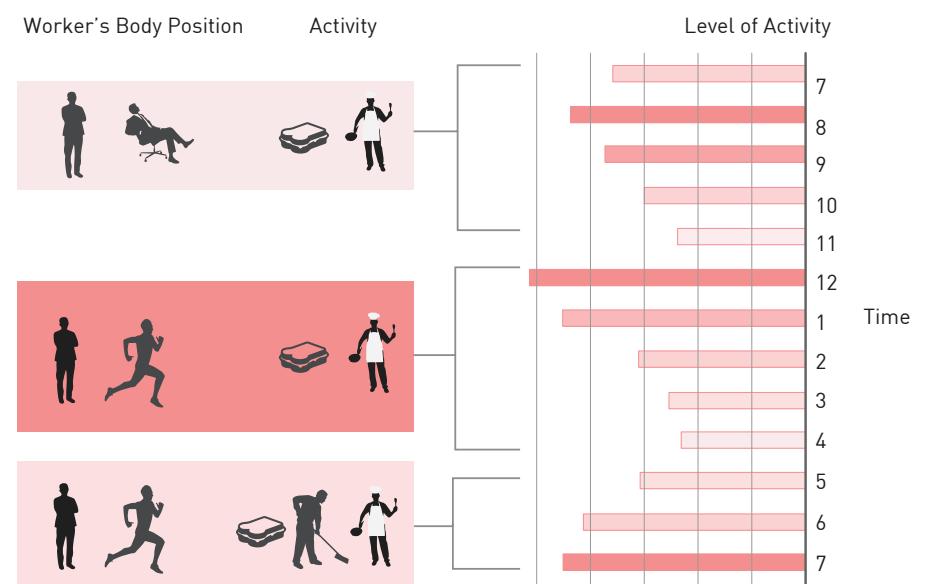
There is a more equal dispersion of the busy level for the Register Worker because not everyone orders hot food. Register workers are always on the job for small orders like coffee and premade counter food. Most of the time, the workers are standing for long hours with very a few breaks.

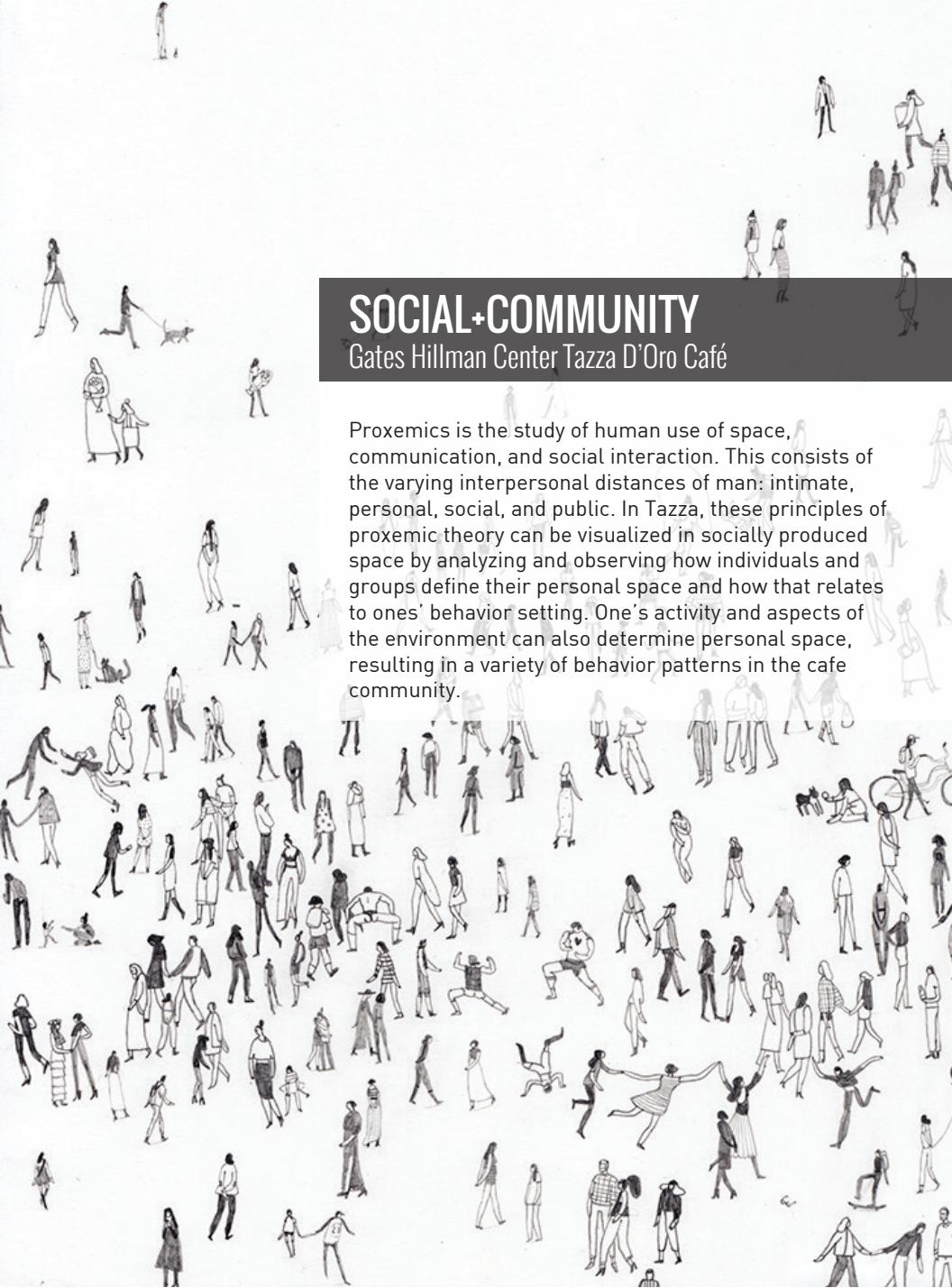


REGISTER WORKER



FOOD PREPARATION WORKER





SOCIAL+COMMUNITY

Gates Hillman Center Tazza D'Oro Café

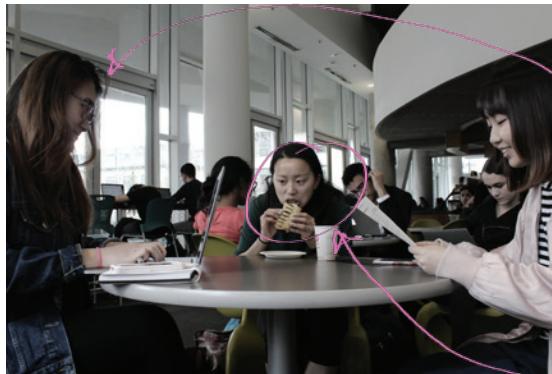
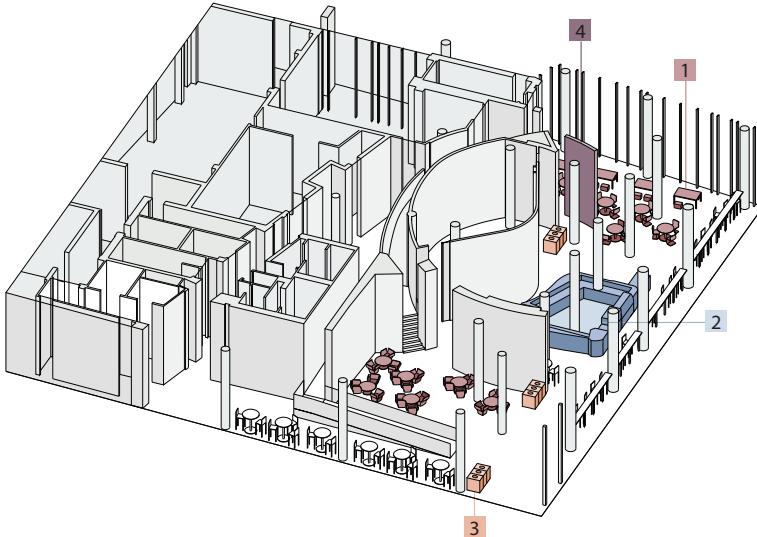
Proxemics is the study of human use of space, communication, and social interaction. This consists of the varying interpersonal distances of man: intimate, personal, social, and public. In Tazza, these principles of proxemic theory can be visualized in socially produced space by analyzing and observing how individuals and groups define their personal space and how that relates to ones' behavior setting. One's activity and aspects of the environment can also determine personal space, resulting in a variety of behavior patterns in the cafe community.

DEFINING SOCIAL SPACE

Christine Zhu

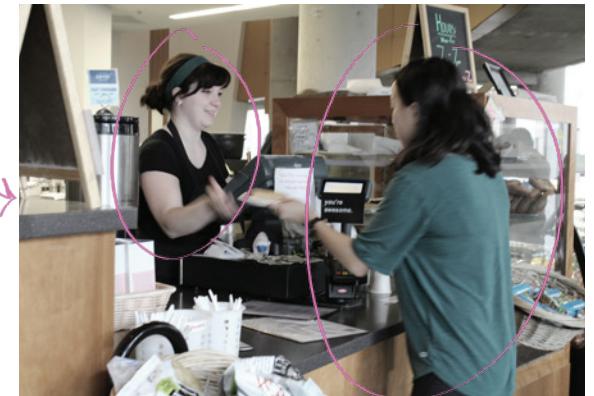
One's personal space can be defined by his behavior, but other times, the environment is also a contributing factor to how one interacts with space. One intangible feature of many cafes including Tazza D'oro as a direct influence to behavior are Hours of Operation. This general set of rules dictates patterns of human use, where operating times

influence what foods people choose and whether their time is spent more on social events like eating, in contrast with later times when food is no longer served. These after-hours change the main activity to become studying, where people engage in different space defining activities.



1 Actions are a motivating force to how people react to the environment. When someone is studying, social space is defined by their intentions of studying either in groups (loud group work), or individually (being quiet and keeping to themselves). This contrasts with those who solely come to Tazza D'Oro to eat.

2 Objects such as the counter, coffee machines, and presence of food at the designated cafe area and register tacitly label this space as somewhere to obtain food. The named area leads to the distinction between the workers and customers, where specific social norms are connected to job titles.



3 Objects such as trash cans and recycling bins are very common in a cafe area. These objects influence personal consciousness, where one is pushed upon the decision to choose between three receptacles to dispose their trash in. This makes one aware of their own actions and have a consciousness of their surrounding space and environment.

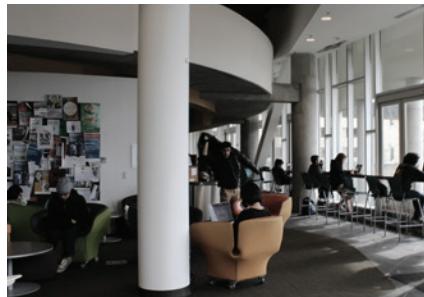


4 The location of the whiteboards scattered around the seating area at the far side of Tazza give the impression that these areas can be utilized as study spaces. The social space is defined by whether people partake in group study or have individual use of the whiteboard. The whiteboard is a signifier for collaboration and independent study.

SCALES OF SOCIAL SPACE

Selena Zhen & Emily DeGrandpre

The scale of a group can result in extremely different social and behavioral activities. This is especially prevalent when comparing the differences between groups and individuals, where one's motive for going to Tazza or the method of interaction can determine their use of personal space.



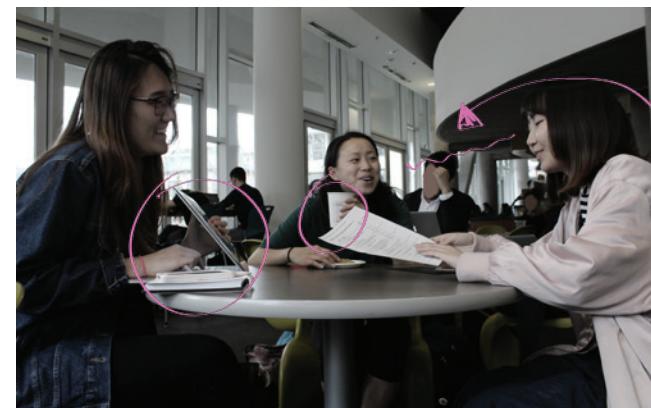
INTERACTION

People's methods of communication vary based on their activity at the time, and can especially vary based on their interaction with others. At Tazza, there are two types of people, those who are alone vs. those who are in groups. At these different scales, these generalizations can be

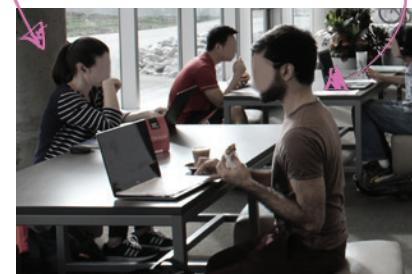
further subdivided into people working and people eating. Depending on their activity and the scale of the group, the interactivity between users of the Café can relate to the social context and behavior settings of a group.



Those working together in a group setting on white boards converse more and therefore are louder and use the spaces around the whiteboard to stand, walk around, and think. Within this group, there are individual personal spaces, where each person writes their own information on the board



The study tables can also be occupied by a single individual, which results in a more secluded space and private area. Strangers generally avoid sitting at the same table as a single individual, for the individual's behavior marks the surrounding area as their "territory." If without choice, people will choose to sit on the opposite end of the table to avoid interaction with the stranger.



People in groups who are eating tend to be more interactive with others when compared to those studying in groups or sitting by themselves.



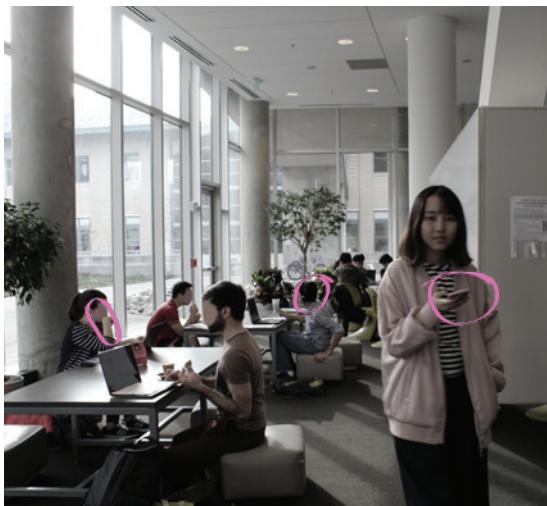
Tall tables along the edge of the Café seating area are located along a major walkway [from the exit near Newell Simon to the interior main elevators]. This location allows for the behavior of interaction to occur between passerby and those studying or eating.

MOTIVES

Headphones are usually a sign that students want to be alone while they are working. They immerse themselves in their work and pick the spots where they are most comfortable. The vantage point created in these low seats is limited by the white board and less overall eye contact occurs here. This could be because it is a place to be focused, yet open to people interacting with them.



This is an area containing very individualized actions and behaviors. The concept of paying at a register is a private and socially respected area where people stay roughly 4 or more feet away and there is a certain level of expected interaction with the employee. The students here on the right chose to only face a window with their backs to much of the social interactions although they have the ability to overhear a lot of conversation.



SITE SPECIFIC

The far corner with soft seating and close, non load-bearing walls each contribute to the sense of enclosure. Small groups between 3-6 are usually seen gathering in this naturally louder, conversational space. The chairs surrounding lend themselves to curled up or hunched over students looking down at their laptops occasionally looking up to make a point of conversation. The table heights here are too low (compared to the chairs) to function as a gathering space but the opposite side functions much better for exchanging information and sharing food or projects.



This intermediate space is perfect for two. People may want to sit here because it is more isolated yet more accessible for new people to come up to because they pass this area on the way to picking up their food or beverage. People usually hang out in groups in this space because there is more room for different bodily arrangements.

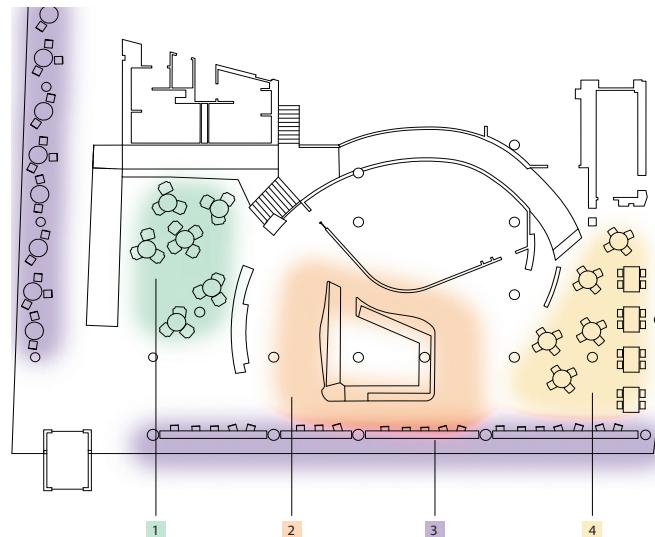


DOMINANT SOCIAL NORMS

Jingyan Zhang

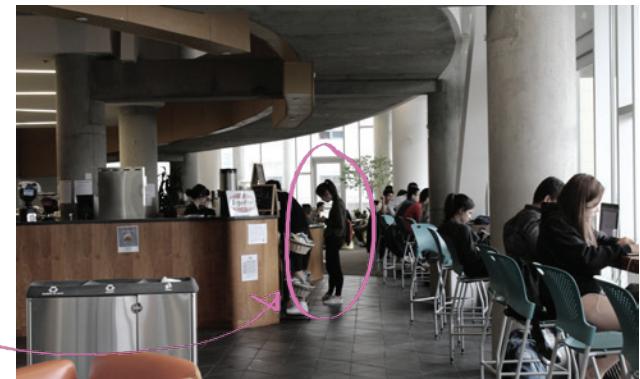
Social norms, like many other phenomena, are the unplanned, unexpected result of individuals' interactions. Like a grammar, a system of norms specifies what is acceptable and what is not in a society or group. Norms are efficient means to achieve social welfare, prevent market

failures or cut social costs; categories of norms include either Nash equilibria coordination games or cooperative equilibria of prisoner's dilemma-type games, which solve collective action problems.

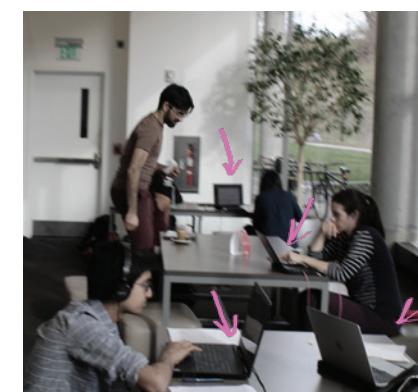
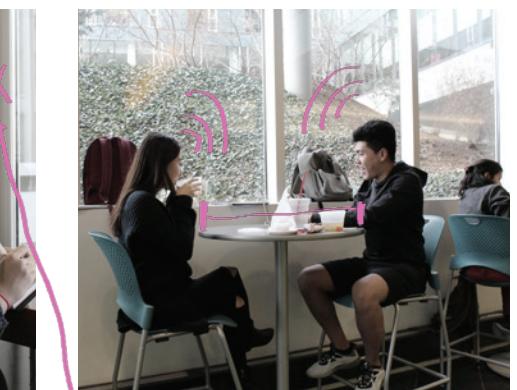


1 People can be easily influenced by the environment around them. Normally as a cafe, the dominant social norm would be eating and drinking. However, as a cafe located in a building for education, students here normally come to study, in addition to eating. The couch area which is normally considered as a resting place is actually full of students studying.

2 Complying to the dominant social norm of studying, the counter area is actually more quiet than the environment of a normal cafe. People who come to the counter to purchase food and drink usually line up quietly.



3 The tall chair areas express another social norm. Because of the small size of the tables, people normally use these areas to eat and relax. At the same time, they are still complying to the larger environment and the overall volume is pretty low.



4 The shorter chair area allows students to gather together and do group work here. Tables with multiple chairs around them demonstrate the expression of collaboration. This area has a slightly higher volume. Overall, the main dominant social norm of the cafe is quiet and educational.



PROPOSED CHANGES

Selena Zhen & Christine Zhu



Before [top] and After [bottom]
installation of private rocking chair.

One of the main user groups in Tazza D'Oro are the students who prefer independent study. The majority of tables in this location are larger with the ability to seat groups, but we propose to introduce a type of chair with partitions that is solely designed to seat one. The barriers on the side of the chair define the personal space of the occupant and gives the impression of solidarity.



Before [top] and After [bottom]
installation of sleeping pod.

Another new way to establish territory is to introduce an activity besides studying and eating, such as sleeping. There are no designated areas in the cafe that promote napping, but with the introduction of napping pods, this defines a new layer of independent space for the occupant.

