

## ABSTRACT

Title of Thesis: INTERNATIONAL STUDENTS  
COMMUNITY

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Architecture, Planning & Preservation

In order to receive a more advanced and diverse education, more students opt for an international status and choose to apply for overseas universities. Not only are their course loads greater than domestic students, but also, they must learn to adapt to local culture and lifestyle. Furthermore, a social stigma may present itself between student bodies, especially as for some local students, a cultural disparity with “new” people of different backgrounds inevitably leads to moments of convergence.

As a sanctuary for learning and personal engagement, a campus setting will best serve as a testing grounds for this thesis proposal. University of Maryland has a collective diversity, which provides a great opportunity for development of international and local student communities. This community serves for the needs for both public space to hold people together and private space to help them feel as secure and comfortable as home.

The site for the new community is located near the campus in order to strengthen the connection with University of Maryland geographically and academically. The site is also close to public transportation, which opens opportunities for various prototypes

of development to nearby urban centers, such as Greenbelt, Hyattsville, and Silver Spring. This thesis is aimed to present a model for future international student communities in other universities.

INTERNATIONAL STUDENT COMMUNITY

by

Jiayu Liu

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# Chapter 1: International Students Experience

## *My Experience*

When I enrolled into the University of Maryland, I faced a number of challenges in preparing and starting my graduate student life in this unfamiliar country. I didn't even know where I could buy my groceries or how to use public transportation. I am very lucky to have my brother and friends to help me with these; however, not all international students have been as fortunate in getting help from others.

As I grew more familiar with graduate coursework, I realized significant social differences between student bodies of Architecture and other STEM-related majors. The Architecture community consists of friendly groups that allow for easy, widespread communication, and promote shared experiences through their daily discourse and sharing of work in a common place - their studios. Other majors appear more impersonal as students do not have obligation to stay, and rightly leave campus as soon as they finish their classes. They hardly have a common ground with their peers and lack the opportunities to interact and get to know each other beyond the classroom.

In the architecture studio system, we are able to quickly break social barriers and stigmas, and better understand each other's cultures and habits. Part of this can be attributed to the mandatory hours required in studio, and due to this requirement, a shared experience is created among peers. This helps to realize the common social ground between colleagues to disregard preconceived statuses and circumstances.

However, regardless of mindset, some students are generally only comfortable with people of their same origin or background. As the result, they adapt to this new environment very slowly.

### **International Students' Experience**

I interviewed some international students and local students. Because most of the students come to this university far away from home, they exclusively spend most of their time with friends and cliques made upon arrival to campus.

Most of these international students befriend only their classmates. Many of these individuals avoid participation in social meetups, campus events, and networking opportunities due to their high workload, especially from the additional coursework due to General Education requirements. Although there are many students in class, they would love to make friends with people who have similarities in cultural backgrounds and interests. Other students profiled want to learn their peer cultural knowledge and make friends with different people, but they don't know how to start their conversation and do not feel confident with their oral English.

Some of the outgoing students interviewed participated in a number of cultural and campus events to become more involved. However, they had only learned of these events from their domestic peers, so information like these event occurrences appears difficult to circulate among international groups. Many of these international students choose to associate with friends from the same countries and worsen this shielding from information circulation. The University of Maryland provides many offerings to

diversify experiences its student body but could benefit from developing more micro-scale and the peer-to-peer experiences.

My proposal seeks to create a community that will encourage and support comfortable interactions for both international and domestic students. This community will attempt to create a unique environment that incorporates elements from my perceptions and interpretations of the architecture school community.

### **Student Perceptions**

Most of the students in University of Maryland choose this university because of the diverse cultural backgrounds, high academic ranking, and commuting convenience to Washington, D.C. Most surveys that I collected show that students are satisfied with what University of Maryland does for now, but for some students who really wants to learn other cultures, they think University of Maryland should do more efforts to integrate different cultures more.

## Chapter 2: University of Maryland Diversity

University of Maryland, founded in 1856, is a public university which is considered as a flagship of University System of Maryland. University of Maryland is located 4-miles north of Washington, D.C.

As of 2017, the University of Maryland has more than 120 graduate majors and 100 undergraduate majors, as well as over 38,000 students, 9,000 faculties and staffs, and 352,000 alumni, which consist of a diverse community. <sup>1</sup>

### **Cultural Diversity**

There are more than 3,600 international students in University of Maryland from more than 150 countries and enrolled in over 100 different majors and degree programs.<sup>2</sup>

Non-immigrants in University of Maryland can be divided into four parts: undergraduate, graduate, Maryland English Institute, and Practice Training. The chart below shows the student number changes in each part in recent years. Except the Maryland English Institute, the student numbers in the other programs are raising

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<sup>1</sup> “A Preeminent Public Research University.” 2017. University of Maryland. Accessed December 15. <https://www.umd.edu/>.

<sup>2</sup> “Rankings and Fast Facts.” 2017. University of Maryland. November 8. <https://www.umd.edu/rankings-and-fast-facts>.

each year. The total international students number and changes ratio are raising during the past years.<sup>3</sup>

	Non-Immigrants			
Undergraduate	860	991	1,050	1,218
Graduate	3,291	3,278	3,392	3,554
Maryland English Institute (MEI)	68	66	36	34
Practical Training (F/J)	660	803	1,020	1,383
<i>Non-Immigrant Total</i>	4,879	5,138	5,498	6,189
<b>% Change</b>	<b>9%</b>	<b>5%</b>	<b>7%</b>	<b>13%</b>
<b>Cumulative % Change</b>	<b>35%</b>	<b>14%</b>	<b>21%</b>	<b>33%</b>

*Figure 1, Non-immigrants number in University of Maryland, (Source: University of Maryland)*

With more and more international students choosing to study in United States these years, the international student number in University of Maryland are also increasing. The chart below shows the number changes of international students in United States and University of Maryland.

	Comparison of U.S.Total to International Student Enrollment			
	2013/14	2014/15	2015/16	2016/17**
Total Student Enrollment U.S.	21,216,000	20,300,000	20,264,000	Not Available
Total International Enrollment U.S.	886,052	974,926	1,043,839	Not Available
% International	4.2%	4.8%	5.2%	Not Available
State of Maryland - International	16,121	16,862	N/A	Not Available
<b>UMD - International</b>	<b>4,879</b>	<b>5,138</b>	<b>5,498</b>	<b>6,189</b>
University of California, Berkeley	6,372	6,874	7,313	Not Available
University of Michigan, Ann Arbor	7,273	7,423	7,630	Not Available
University of California, Los Angeles	9,579	10,209	11,513	Not Available
University of Illinois, Urbana-Champaign	10,843	11,223	12,085	Not Available

*Figure 2, Non-immigrants number in the United States, (Source: University of Maryland)*

<sup>3</sup> “Reports and Statistics.” 2017. Reports and Statistics | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/reports-and-statistics>.

### **International Students & Scholar Service (ISSS)**

University of Maryland provides International Students & Scholar Services for international students. The service center provides the document preparation and information service for the students who need to attend school and apply for job as foreigners. International students receive their visa application document as soon as they receive their offer from universities. They attend workshops for applying Optical Practice Training at the end of their program.<sup>4</sup>

All the international students and scholars in University of Maryland receive help from this International Students & Scholar Services Center. This service center also offers several events for international students to learn and explore more in this school.

### **International Student Orientation**

This is a required event that all international students must attend. All the international students in University of Maryland receive emails that include information about this orientation. It is aimed to give these students a guideline that what procedures and documents they should accomplish as international students.

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<sup>4</sup> “Reports and Statistics.” 2017. Reports and Statistics | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/reports-and-statistics>.

This event is really helpful for international students to maintain their student status that enables them study in United States.<sup>5</sup>

Other than this, several fun events are also included in this orientation that all the students could join. For example: Resources Fair, IKEA Shopping Trip, and Washington, DC Trip. These events help students explore school and around area, have more fun with their school life, and even get acquaint with other students.

There are few disadvantages of these events. They are not required to attend and the time slot is inflexible. These events are only held during a certain period of time. If some students cannot attend them during the specific time, they do not have other chances. In my point of view, the university should hold these events more often and have more time options, so students can get to know new friends from different departments and backgrounds. They can also get more familiar with this school and this area as well.

### **Scholar Orientation**

This orientation is held once a week except Winter and Spring break for short-term scholars, researchers, interns and trainees. Orientation provides a series of initial

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<sup>5</sup> “ISSS Programs.” 2017. ISSS Programs | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/iss-s-programs>.

information such as local and campus community, resources and cultural information.<sup>6</sup>

Orientation covers the immigration regulations of scholars such as employment restrictions, application process of social security number. Other than these, this orientation also includes information about University of Maryland, information of Washington, DC, public transportations, and local locations that scholars could have interests to visit.

### **International Coffee Hour**

International Coffee Hour is one of ISSS service which provides an opportunity for students to meet other students and faculties. They hold these events once a week.

This event lasts for one hour on each Wednesday and allows for any student to join and have public discourse with others.<sup>7</sup>

Students can stop by anytime during this hour and feel free to have snacks and coffee then talk to other people. It is a good time to learn more knowledge globally and make more friends.

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6 “ISSS Programs.” 2017. ISSS Programs | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/iss-s-programs>.

7 “ISSS Programs.” 2017. ISSS Programs | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/iss-s-programs>.

### **Language Partner Program**

The Language Partner Program service is designed mostly for students in the School of Language, Literatures, and Cultures. This program mostly provides these students good chances to meet international students who speak the specific language that they study in class. The Language Partner Program creates a platform that connects United States students with international students.<sup>8</sup>

This program offers a win-win forum for both local students and international students. United states students can learn language from these target language speakers in an informal learning environment. These language learners can build their confidence and practice their language speaking fluency during a good time of learning more cultures and making new friends. For international students, this program helps them gain more resources from local students and get better knowledge of United States culture, which helps their cultural integration.

As required, they have to meet at least once a week for at least one hour to have conversation about listed topic from this program. Furthermore, language learners and partners have to attend two cultural learning sections during the semester to talk about assigned readings in culture connection topic. When successfully accomplished this

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8 “ISSS Programs.” 2017. ISSS Programs | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/iss-s-programs>.

Language Partner Program, School of Language, Literatures, and Cultures students will earn one credit and international students will receive a small scholarship.

### **The Language House**

The language house was established in 1989 making it the first living based learning program at University of Maryland. This program is opened to students who want to learn certain target languages in both academic atmosphere and daily life. Students in this program are required to speak target language in this Language House which is considered as an informal way of learning languages. Also, faculty from School of Languages, Literatures, and Cultures give academic direction for these students.<sup>9</sup>

Ten language clusters are included in this Language House: Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Persian, Russian, and Spanish. From practicing languages, students also develop their social communication skills and culture knowledge.

This Language House would be a great prototype of International Students Community. With housing provided, this community creates a place that these students have to spend their most of the time in. This creates great opportunities for their learning and interacting in daily life. Furthermore, language is also an important part of learning different cultures.

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<sup>9</sup> “ISSS Programs.” 2017. ISSS Programs | Global Maryland, University of Maryland. Accessed December 15. <https://globalmaryland.umd.edu/offices/international-students-scholar-services/iss-s-programs>.

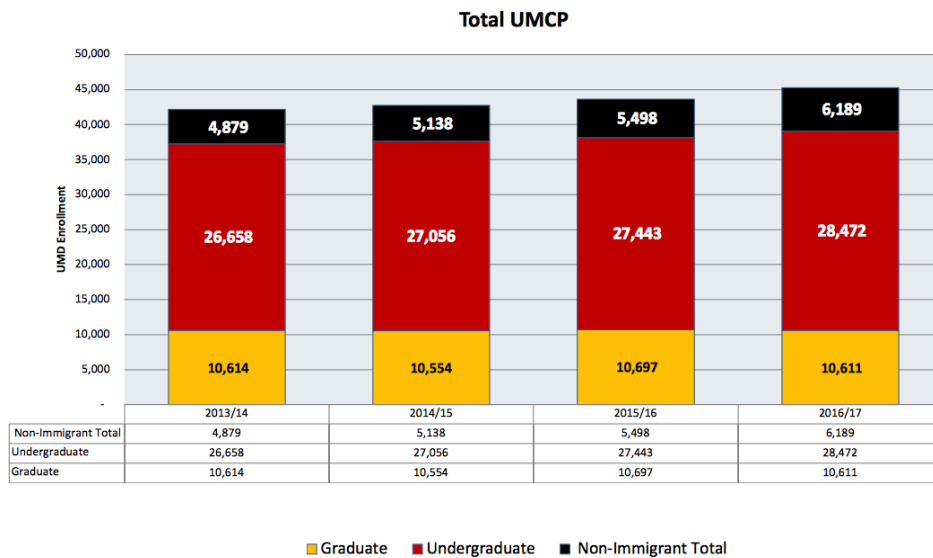
### *Design Strategy*

For design thinking of International Student Community, it is necessary for this community to provide residential housing service for students to create a platform of sharing cultural values with others and attracting more people from public. Other than that, this community should provide some goal or theme that related to culture for students who live here, which creates an environment to help them interact with others in this International Student Community.

## Chapter 3: Cultural Integration

### International Students' Statistics

The enormous cultural diversity within University of Maryland supports this proposition of the international student community. To begin with, the ratios of every nation in University of Maryland is of great importance. Here is the current international students' statistics of University of Maryland.



*Figure 3, Reports and Statistics, (Source: University of Maryland)*

The chart shows the number of non-immigrant in the campus are raising each year from 2013, which gives the hint that more and more international students will be in University of Maryland in the future.

	Top 10 Countries with Highest Enrollment			
	2013/14	2014/15	2015/16	2016/17
China	2,305	2,482	2,025	2,197
India	795	866	851	959
South Korea	279	250	223	225
Taiwan	143	129	113	118
Iran	97	103	99	99
Saudi Arabia	61	55	63	-
Canada	57	61	49	55
United Kingdom	-	-	-	47
Nigeria	-	-	-	46
Spain	-	-	-	43
Turkey	46	46	38	-
Vietnam	38	42	59	39
Japan	36	33	21	-

Figure 4, Reports and Statistics, (Source: University of Maryland)

The first top five nations who have the most popularity in University of Maryland are going to be included into the cultural analysis of this thesis. These countries are United State, China, India, South Korea and Iran.

### **Cultural Backgrounds**

United States:

Because of the large-scale immigration from many other countries, United States is defined as a racially and ethnically diverse country. The culture of United States develops from European roots and is influenced by many different cultures: Asian, Native American, Polynesian, African, and Latin American cultures. However, at the same time, it still has its own cultural and social characteristics. Popular culture, which is one of many cultural elements in United States, spreads out all over the world.<sup>10</sup>

<sup>10</sup> “Culture of the United States.” 2017. *Wikipedia*. Wikimedia Foundation. October 21. [https://en.wikipedia.org/wiki/Culture\\_of\\_the\\_United\\_States](https://en.wikipedia.org/wiki/Culture_of_the_United_States).

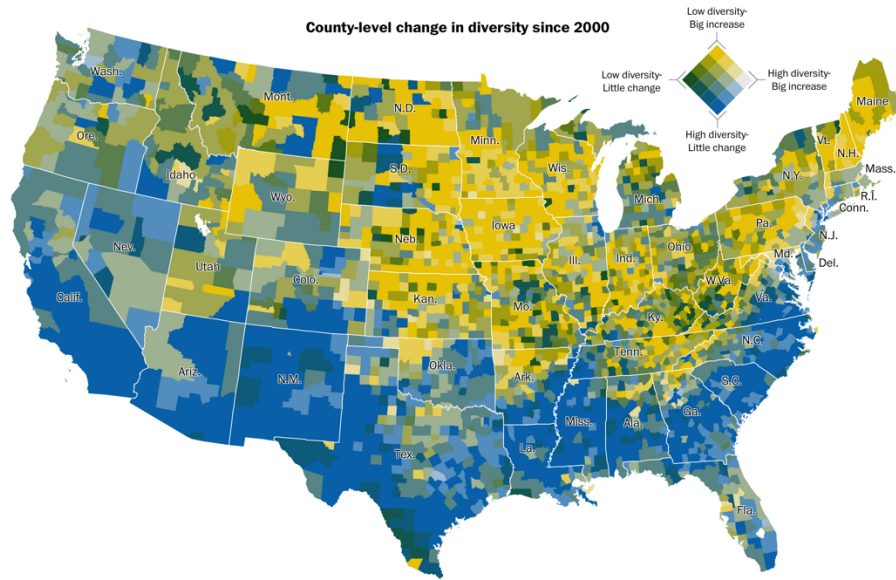


Figure 5, County-level change in diversity since 2000, (Source: *The Washington Post*)

China:

Considered as one of the oldest ancient civilizations, China has one of the earliest culture in the world originate from thousands of years ago. Chinese culture is the historically dominant cultures in the East Asia, and also is one of the most profound cultures all over the world.<sup>11</sup>

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<sup>11</sup> “Chinese Culture.” 2017. *Wikipedia*. Wikimedia Foundation. November 1. [https://en.wikipedia.org/wiki/Chinese\\_culture](https://en.wikipedia.org/wiki/Chinese_culture).

India:

India is one of the most religiously diverse nations in the world, whose culture takes in from other countries' that are unique and distinct from each other. Notably, Indian religions, philosophy, and cuisine have a noticeable cultural impact in the world.<sup>12</sup>

Indian Family Structure:

India has the joint family system tradition where parents live with children and their spouses and children. The oldest male family member takes charge of making important decisions for the whole family, and other family members just obey the rules made by him.

South Korea:

Ancient Korean culture was influenced by ancient Chinese culture and became the traditional Korean culture in the nomadic tribes in early Korea. Then the Korea split into South Korea and North Korea who developed their own cultures later. Because of the effect of Western cultures, especially American culture, the traditional Korean culture developed into contemporary culture.

Industrial, urban and westernized changes influence people lifestyle in Korea. While more and more people are moving into major cities, the primary family structure has changed from multi-generation families into nuclear families.

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<sup>12</sup> "Culture of India." 2017. *Wikipedia*. Wikimedia Foundation. November 2. [https://en.wikipedia.org/wiki/Culture\\_of\\_India#Architecture](https://en.wikipedia.org/wiki/Culture_of_India#Architecture).

Not only did the Korean government make a tremendous effort to spread Korean popular culture to the world, but also did a considerable amount of Korean immigration contribute to this process.<sup>13</sup>

Iran:

The culture of Iran is one of the oldest in the world. Because of its location, Iran culture influenced other countries around it: as far as Russia on the north, Arabian Peninsula on the south, Greece and Italy on the west, South and East Asia on the east.<sup>14</sup>

### **National Architecture Design Aspects**

Architecture of United States:

United States, as a multicultural country, has an eclectic style in architecture, changing and diversifying in many aspects because of plenty of external forces. For example, under the influence of European Early Neoclassicism style, public buildings and large manors were shaped as single large-scale; then, due to the vast amount of migration and urbanization, the buildings turned into a more Mediterranean style.<sup>15</sup>

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<sup>13</sup> “Culture of South Korea.” 2017. *Wikipedia*. Wikimedia Foundation. October 18. [https://en.wikipedia.org/wiki/Culture\\_of\\_South\\_Korea](https://en.wikipedia.org/wiki/Culture_of_South_Korea).

<sup>14</sup> “Iran.” 2017. *Wikipedia*. Wikimedia Foundation. October 27. <https://en.wikipedia.org/wiki/Iran#Architecture>.

<sup>15</sup> “Culture of the United States.” 2017. *Wikipedia*. Wikimedia Foundation. October 21. [https://en.wikipedia.org/wiki/Culture\\_of\\_the\\_United\\_States](https://en.wikipedia.org/wiki/Culture_of_the_United_States).



*Figure 6, American Architecture, (Source: Google)*

#### Chinese Architecture:

Chinese architecture originated more than two thousand years ago which is considered as a significant hallmark of the history of China.

The wide halls of the Forbidden City are excellent examples of Chinese architecture's emphasis on width, which is a contrast to the focus on the height of Western design.

Chinese architecture focuses on symmetry trying to convey a meaning of grandeur.

This style applies to various architectures from public buildings to palaces and small granges. However, the ideas behind the design of Chinese gardens were aimed to emphasize natural asymmetrical characteristics by creating enduring flows.<sup>16</sup>

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<sup>16</sup> "Chinese Culture." 2017. *Wikipedia*. Wikimedia Foundation. November 1. [https://en.wikipedia.org/wiki/Chinese\\_culture](https://en.wikipedia.org/wiki/Chinese_culture).



*Figure 7, The Forbidden City & Garden (Source: Google)*

Chinese architecture design takes Feng Shui into consideration as well. Feng Shui is regarded as the soul of architectural theories in China and has its own developed system. An example would be the rule of leaning against mountains and facing waters.<sup>17</sup>

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<sup>17</sup> “Chinese Culture.” 2017. *Wikipedia*. Wikimedia Foundation. November 1. [https://en.wikipedia.org/wiki/Chinese\\_culture](https://en.wikipedia.org/wiki/Chinese_culture).



*Figure 8, Feng Shui Related Painting, (Source: Wang Bomin)*

#### Indian Architecture:

As one of the most religious nations around the world, however, religions and kingship have not played an important role in Indian urban design. Indian architecture stresses the expressions over time and space, and gradually takes in new styles.

Vaastu Shastra, an Indian word for Feng Shui, is a tradition during the architecture development. Vaastu Shastra influences many aspects of architecture and urban

design. It was applied to details of building such as directions, rooms, objects, and materials to achieve the harmony within one space.

During the Mauryan and Gupta empires, some Buddhist complexes were built, such like Ajanta, Ellora, and eternal Sanchi Stupa. Then South India made Hindu Temples taken as traditional Indian religious buildings have a strong influence on the southeast building styles in Asia.

Because of the western Islamic influence on India, Indian architecture takes in new religious traditions and merges its architecture design with other design styles.

Contemporary Indian architecture has a more cosmopolitan style such as Lotus Temple.<sup>18</sup>

#### Iranian Architecture:

The architecture of Iran originated from seventh millennium BC. It is the first nation to apply geometry, mathematics, and astronomy into architecture design.

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<sup>18</sup> “Culture of India.” 2017. *Wikipedia*. Wikimedia Foundation. November 2. [https://en.wikipedia.org/wiki/Culture\\_of\\_India#Architecture](https://en.wikipedia.org/wiki/Culture_of_India#Architecture).



*Figure 9, Geometry Architectural Feature, (Source: Ariana Zilliacus)*

Nowadays, Iranian architecture developed from their traditions and experiences, and they keep structural and aesthetic varieties in their designs. They also achieve the seventh ranking in the UNESCO's list: the most archaeological ruins and attractions from antiquity.<sup>19</sup>

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<sup>19</sup> "Iran." 2017. *Wikipedia*. Wikimedia Foundation. October 27. <https://en.wikipedia.org/wiki/Iran#Architecture>.

## **Cultural Pattern**

Cultural Patterns is introduced by three dimensions of cultural complexity, individual-collectivism and tightness-looseness.

### Cultural complexity:

There are many ways to determine the complexity of culture: language, economic, technology, politics, religious patterns, aesthetic patterns, educational systems, social structures, and so on.

The potential relationship number is also one crucial factor affecting cultural complexity. The archaeological evidence shows that a bank of people can include more than thirty individuals. More public-private culture in the society means less collective culture, which indicates more culture complexity.

Private culture originates from person cognition which involves traits, personalities, and behaviors. Public culture is more relevant to other people's general thoughts. People who live in the collective culture tend to care more about the view of the whole group of people.

When the culture gets more complicated, individuals have more potential to break up into small groups, but they will have less loyalty to any one of the groups.

The level of society's economic development also has an essential effect on the cultural complexity. The more stable the groups are, the more financial independence

will be turned into emotional and social liberation. These independent individuals consider more about their personal goals than the overall goals of their group.

In conclusion, the more financially-independent and complexed the group is, the more individualistic the culture is.

#### Individualism and Collectivism:

In individualistic cultures, people see their personal goals more important than the common goal of the whole group.

In a collectivistic culture, people usually are more passionate about the goal that benefits the whole group instead of realizing their own potential. They consider the influence of their actions to their group before they do and share resources with each other. Although they treat themselves as independent individuals, they involve more with each other during the daily life.

An ingroup is an exclusive, typically small, group of people with a shared interest or identity which can be easily determined by the similarity. An ingroup involves more people when it is more stable and impermeable. And under this circumstance, the ingroup norms such as group member social behaviors and role relationships will also be improved.

Collectivistic and individualistic cultures are not totally separated from each other. Collectivism has the characteristics of individualism and vice versa. Collectivistic culture has Latin America, Asian, and African as representatives and most of the

North American, Northern and Western Europe are examples for individualistic culture.

Tight versus Loose cultures:

A tight society means the society is relatively homogeneous in which group members tend to have more explicit rules that group members obey. People living in a loose culture are more heterogeneous and they do not have clear rules. For example, it is harder to build up regulations for some particular events in United States because the culture is loose.<sup>20</sup>

### **Design Implication**

According to the research analysis, this community should be able to provide many possibilities for people to explore their preference of choosing a suitable living condition. To achieve that goal, both collectivistic living space and individualistic living space should be designed to offer different social behavior chances.

Individualist group living space & collectivist group living space:

To design a more collectivistic living environment, the community should include a small amount of individuals to ensure sufficient communication within the group.

Also, a theme should be designed to provide a common goal or interest for group members. They are supposed to live closer to each other, so a gathering space needs

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<sup>20</sup> Harry C. Triandis. 1989. "The Self and Social Behavior in Differing Cultural Context" University of Illinois. <https://pdfs.semanticscholar.org/cc90/c4e7d3c7b083796c54a910f6301076b0c59c.pdf>

to be taken into consideration where they can share their resources and appreciate or celebrate of the theme.

Furthermore, when we design a more individualistic living space, more individuals can be included into the group. The living space should be separated to some extension, but a small gathering space still need to be take into consideration even though group members maybe not spend their most time in it.

### Gathering space & private space

It is fundamental for a community architecture to have both gathering space and private space. The existence of gathering space creates the opportunities for people to meet and know each other for further cultural communication and knowledge exchange. A private space ensures students in this community living in a safe space and feeling as home.

Gathering space design should take in more collectivistic elements, which guarantees that people can communicate efficiently and hold events successfully. The main gathering space design should meet aesthetic and emotional satisfaction of the most people who use it regardless their cultural and national backgrounds.

The private space design should focus more on personal feelings while the design of style and scale should meet the requirements of personal habits, in which way would help them feel more secure and comfortable.

## Chapter 4: Site Analysis

### Site Options

The international student community is designed to provide further and better services for the students at the University of Maryland, so the site should be chosen near or on the campus. There are several potential sites among the campus that have their unique characteristics that could offer different opportunities for this international student community.

#### Proximity to Campus

These sites are chosen from urban like and park like open spaces on and near the college park campus. A short distance from the campus geographically strengthens the connection between this International Student Community with University of Maryland, in which way provides these students various accesses to academic resources, professional networks, and comfortable living conditions. Students who live in these sites can access University of Maryland by walking easily.

The red part stands for property of Maryland state. The graphic below shows that some parts of these sites are owned by University of Maryland, while other parts of these sites are public or private properties. The different property ownership can make the International Student Community be supported by either University of Maryland, society or individuals.



*Figure 10, University of Maryland Property & Potential Sites (Source: Author)*

- A. Paint Branch Stream Valley Park
- B. College Park Dog Park
- C. Adelphi Manor Park
- D. University of Maryland Hillel
- E. College Park Shopping Center

## International Students Population Density

Analysis on enrollment numbers in different departments helps understanding the international student distribution in the university. The diagram below shows the international student population density and potential site locations. We can tell that most international student population is relatively near from Paint Branch Stream Valley Park site (site A) and University of Maryland Hillel site (site B).



*Figure 11, International Students Distribution, (Source: Author)*

1. Clark School of Engineering (Graduate 1052, Undergraduate 142, Total 1194)
2. Smith School of Business (877, 120, 997)
3. Computer, Math & Natural (530, 318, 848)
4. Art & Humanities (365, 35, 400)

5. Behavioral & Social Science (235, 144, 379)
6. Agriculture and Natural Resources (94, 76, 170)
7. Information Studies (120, 2, 122)
8. Education (71, 7, 78)
9. School of Public Health (39, 28, 67)
10. School of Public Policy (61, 0, 61)
11. Architecture, Planning & Preservation (36, 5, 41)
12. Journalism (14, 4, 18)

## Public Transportation

Other than serving students from University of Maryland, it is also important for the international student community to help people from outside of the school. The public transportation increases possibilities of bringing more people into this International Student Community to experience and learn about other cultures.

The existing College Park Metro Station is located out of campus and not within a convenient walking distance. Luckily, the proposed purple line will cover several stops through the College Park campus, which makes the campus more accessible to potential visitors.

Paint Branch Stream Valley Park site (site A) have the most convenient access to both existing College Park Metro Station and proposed Purple Line Stations. University of Maryland Hillel (site D) is within the walking radius of the proposed Purple Line Station which provide the potential accessibility opportunities for publics.



*Figure 12, Metro Lines, (Source: Author)*

1. Existing Green Line Metro, Yellow Line Metro, and MARC Train
2. Proposed Purple Line

Bus is another option for people who want to get in or out of University of Maryland and International Student Community. The graphic below shows the University of Maryland bus routes and stations, we can tell that where these students in University of Maryland and the International Student Community can take the bus and where they can access to. The bus service in University of Maryland provide very convenient access from the sites to every part of University of Maryland and even other nearby cities.



*Figure 13, Bus Circulations, (Source: Author)*

**Site Comparison**

By analyzing proximity to University of Maryland, proximity to public transportations and international student distribution, we can get a clue that which sites have more potential advantages than others.

The comparison metric diagram below shows the score of each site in different aspects. We can exclude Adelphi Manor Park (Site C) because it does not have any advantages in these aspects than other sites which is shown in the chart.

	A	B	C	D	E
Proximity to University of Maryland	4	4	3	4	3
Proximity to Public Transportation	4	3	1	3	2
Proximity to International Student Departments	4	3	2	4	3
Total	<b>12</b>	<b>10</b>	<b>6</b>	<b>11</b>	<b>8</b>

*Figure 14, Site Comparison, (Source: Author)*

### **Site A: Paint Branch Stream Valley Park**

#### Natural Features

Paint Branch Stream Valley Park (Site A) is featured with nature scenery, around by beautiful landscapes and views for this International Student Community. The site itself is a park where people can do exercise and go biking, but most of this park has not been used. The space can be designed for wider availability for public and community uses.

The Paint Branch Stream goes through the site. Instead of hiding it inside the park, it is better to make it more visual to the public (e.g.: a water celebration), so that people can appreciate it while they live or just walk through.

A part of the site is a flood zone. On one hand, it will be a challenge to design building structure that fits in this area. On the other hand, it also provides great opportunities for designers to implement new ideas.

Furthermore, there are several open spaces near this site that also have the potential to be developed as several activity options for residents living in this community. For example, the Lake Artemesia is located in the east of the site where people can enjoy their spare time.



*Figure 15, Nature Features of Paint Branch Stream Valley Park, (Source: Author)*

1. Lake Artemesia
2. Paint Branch Stream
3. McKeldin Mall
4. The Washington Quad
5. Chapel Fields
6. Fraternity Fields
7. Berwyn Neighborhood Playground
8. Indian Creek Park

## Zoning

The west side of this site is in front of the University of Maryland, so it is more convenient for students and staffs to go to work. The site could be accessed only by cars from one side where a lot of mixed-use and commercial buildings locate. The northern part of the site is close to bunches of communities and houses which is comfortable and quiet as a living environment. So, the International Student Community designed in this site could have an interesting transit from busy commercial activities to quiet and peaceful living environment.

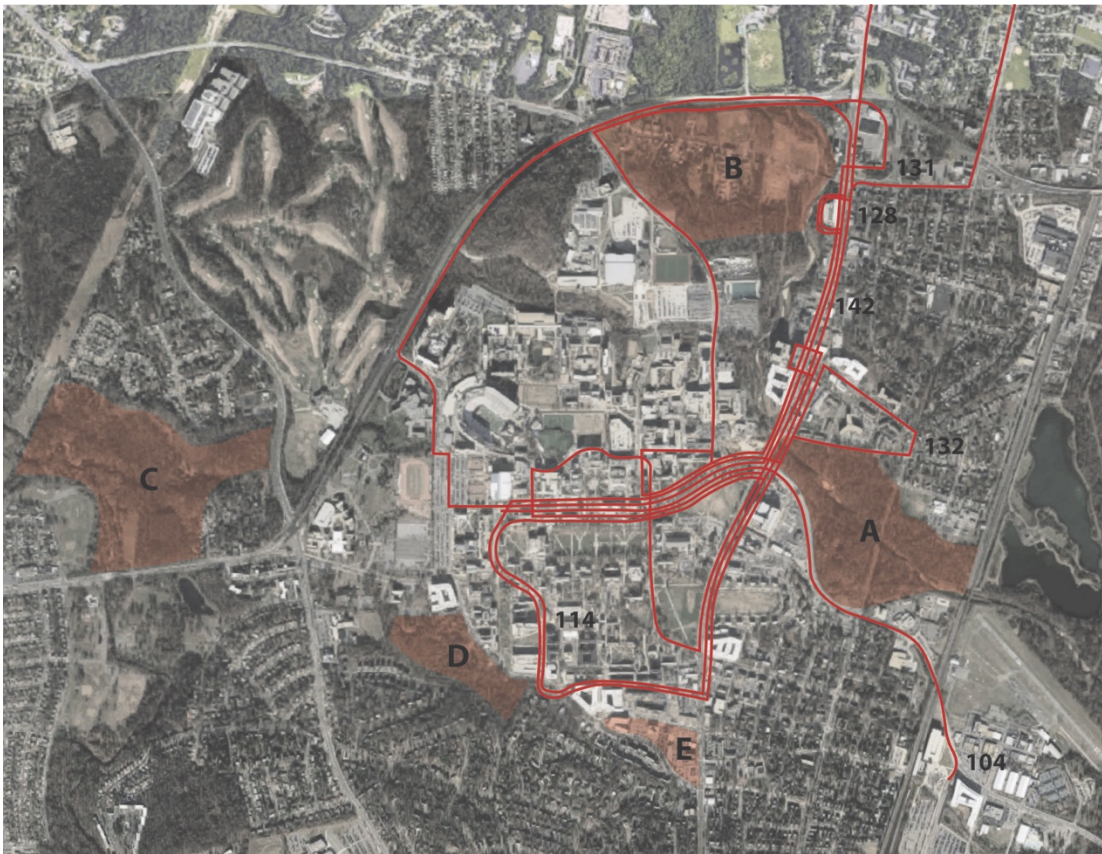


*Figure 16, Zoning for Paint Branch Stream Valley Park, (Source: Author)*

1. University of Maryland
2. Mixed-Use Zoning
3. Office Zoning
4. Residential Zoning
5. Open Space Zoning

## Bus Circulation

University of Maryland has several bus lines that go past Paint Branch Stream Valley Park (Site A). Students from Paint Branch Stream Valley Park (Site A) could easily get accesses to most parts of the campus, and they can even get as far as some of areas that located in the north of the campus by bus 128. Moreover, there is a bus 104 that provides students with the route from campus to this site as well as an easy access to existing College Park Metro Station.



*Figure 17, Bus Circulation for Paint Branch Stream Valley Park, (Source: Author)*

## Car and Pedestrian Access

The primary streets go around the site, and the main access to the site is the northern road from where cars and pedestrians can reach the site. More accesses for both car and pedestrian should be developed for the site to be qualified as an international student community base site.



*Figure 18, Car and Pedestrian Access for Paint Branch Stream Valley Park, (Source:*

*Author)*

1. Primary Car Access
2. Secondary Car Access
3. Pedestrian Access

**Site B: College Park Dog Park**

Academic Connection

College Park Dog Park (Site B) is located in the north of the University of Maryland where near many university plant facilities and university sports facilities that are showed in the diagram. This site would create many specific opportunities for students who are interested in planting and sports.



*Figure 19, Academic Connection for College Park Dog Park, (Source: Author)*

1. Research Plant Growth Facility
2. Wye Oak Building
3. XFINITY Center
4. Softball Complex
5. RecWell Artificial Turf Field
6. Field Hockey and Lacrosse Complex
7. Paint Branch Golf Course

## Zoning

Half of the site is reserved as green space, and some parts of the site are used for residential buildings. The place is relatively near to mixed-use and commercial buildings which are located at the east of the site.



*Figure 20, Zoning for College Park Dog Park, (Source: Author)*

1. Residential Zoning
2. Open Space Zoning
3. Mixed-Use Zoning
4. Commercial Zoning
5. University of Maryland

## Bus Circulation

There are many bus lines of University of Maryland going pass College Park Dog Park (Site B), which provide students from this site with very convenient accesses to the most part of the campus.



*Figure 21, Bus Circulation for College Park Dog Park, (Source: Author)*

## Car and Pedestrian Access

There are several car lanes and pedestrian roads around the site, but it is inconvenient to get into the site. If the international student community is going to be located in this site, then several accesses design should be added, especially some accesses directly connected to the campus.



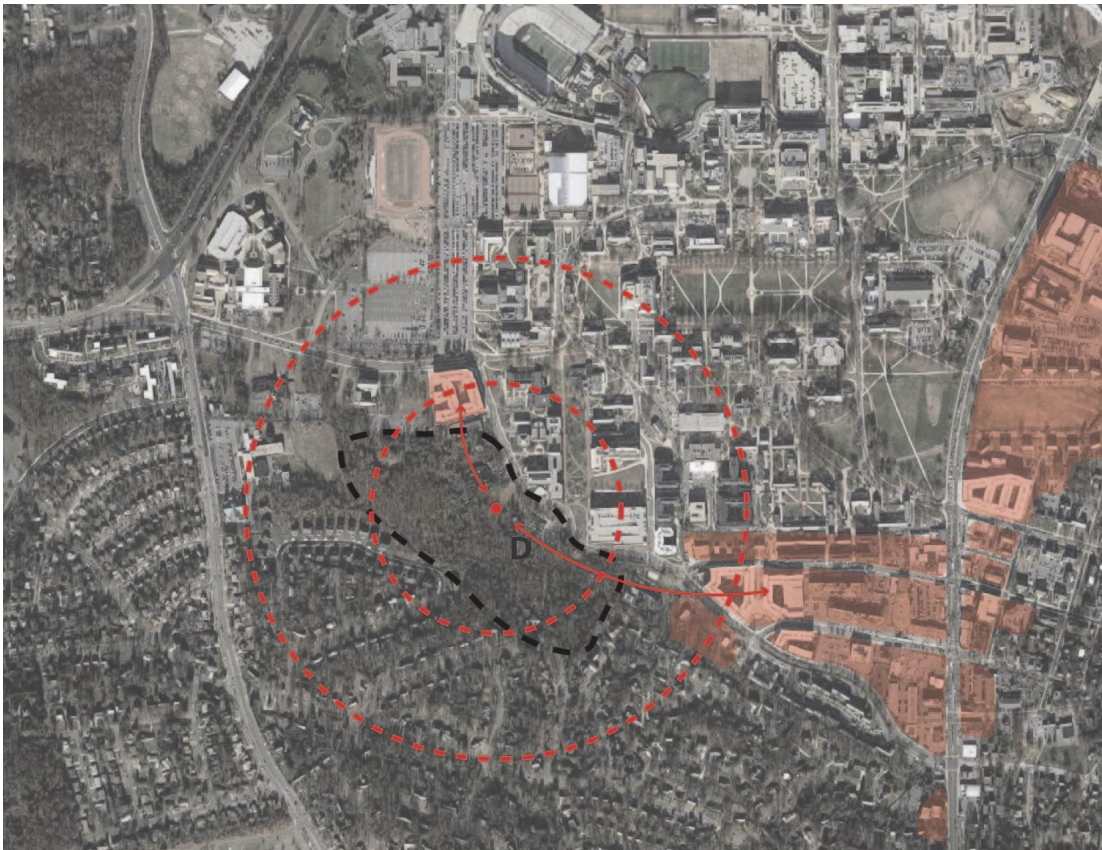
*Figure 22, Car and Pedestrian Access for College Park Dog Park, (Source: Author)*

1. Primary Car Access
2. Secondary Car Access
3. Pedestrian Access

**Site D: University of Maryland Hillel**

Commercial Connection

University of Maryland Hillel Site is close to the newly built mixed-use building Domain. Domain corporates with housing services and some restaurants on the ground level where students always buy their food during weekdays. This site could be developed as a new commercial-oriented plaza for students from nearby schools.



*Figure 23, Commercial Connection for University of Maryland Hillel, (Source: Author)*

## Zoning

The site is in the middle of University of Maryland and residential areas. Other than only serving for University of Maryland students, it should also consider serving more people around the residential community and try to take more people in. The zoning map also show that this site would be a successful commercial-oriented site to connect around mix-used areas, which offer potential clients more options to choose.



*Figure 24, Zoning for University of Maryland Hillel, (Source: Author)*

1. Residential Zoning
2. Open Space Zoning
3. Commercial Zoning
4. Mixed-Use Zoning

5. University of Maryland

Bus Circulation



Figure 25, Bus Circulation for University of Maryland Hillel, (Source: Author)

## Car and Pedestrian Access

The access to this site is obscure from the outside, but still provides many design opportunities based on the site functions. The disadvantage of the site is the longer distance to primary streets, so it may be inconvenient for people from outside to get into this community. But this site is the nearest apartment-oriented location in the campus which is considered as an important advantage of this site.



*Figure 26, Car and Pedestrian Access for University of Maryland Hillel, (Source: Author)*

1. Primary Car Access
2. Secondary Car Access
3. Pedestrian Access

**Site E: College Park Shopping Center**

Urban Feature



*Figure 27, Urban Feature for College Park Shopping Center, (Source: Author)*

## Zoning



*Figure 28, Zoning for College Park Shopping Center, (Source: Author)*

1. University of Maryland
2. Residential Zoning
3. Mixed-Use Zoning
4. Open Space Zoning

## Bus Circulation

University of Maryland only provides limited number of buses that go across the main route of the campus from College Park Shopping Center (Site E). The buses for this site can only take people to the further south of the site. The public transportation access of this site is relatively limited, which is the big challenge of this site.



*Figure 29, Bus Circulation for College Park Shopping Center, (Source: Author)*

## Car and Pedestrian Access

It is very convenient for both cars and pedestrians to get access to College Park Shopping Center (Site E). The site is more urban-like site which has pedestrian-friendly neighborhoods. People from this site can go to University of Maryland and around commercial area easily by walking. There are also primary streets and secondary streets around the site for cars get to this site. There are parking spaces around that make this site more usable for cars.



*Figure 30, Car and Pedestrian Access for College Park Shopping Center, (Source: Author)*

**Comparison Matrix**

After the analysis of each site, it is concreted to say that Paint Branch Stream Valley Park (Site A) and University of Maryland Hillel (Site D) provide more opportunities than other sites. They are also a good set of comparison so that they can be designed with different processes.

	A	B	D	E
Features to Create Oppotunities	4	4	4	3
Zoning Complexity	4	4	3	2
Bus Circulation	4	4	3	2
Car and Pedestrian Access	3	2	4	3
Total	<b>15</b>	<b>14</b>	<b>14</b>	<b>10</b>

*Figure 31, Site Comparison, (Source: Author)*

## Chapter 5: Precedents

### **Schwartzman College Tsinghua University**



*Figure 32, Schwartzman College, (Source: RAMSA)*

Architects: Robert A.M. Stern Architects

Location: Tsinghua University, Beijing, China

Area: 200,000 SF

Project Year: 2016<sup>21</sup>

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21 “Schwarzman College.” 2017. Schwarzman Scholars. Accessed December 15. <https://www.schwarzmanscholars.org/about/schwarzman-college/>.

Schwartzman College is a new international program in Tsinghua University. It plan to take in 200 students and scholars every year to “educate the next generation of global leaders”. It plans to admit 45% United States students, 20% Chinese Student and 35% from the rest of world. <sup>22</sup>



*Figure 33, Schwartzman College, (Source: RAMSA)*

The buildings have two courtyards. One of them aims to serve students in the center and the other one is only open towards public street to draw people in. <sup>23</sup>

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<sup>22</sup> “Schwarzman College.” 2017. Schwarzman Scholars. Accessed December 15. <https://www.schwarzmanscholars.org/about/schwarzman-college/>.

<sup>23</sup> 2017. Robert A.M. Stern Architects, LLP. Accessed December 15. <http://www.ramsa.com/news-events-detail.php?id=621&type=News>.



*Figure 34, Schwartzman College, (Source: RAMSA)*

The materials of interior design of the building create a feeling of cultural collaboration. The mixing western and eastern architecture style make this building very unique to compare to other Chinese traditional architectures.

## Advantages & Disadvantages

This simple form building with different hierarchy courtyards that create a platform for these scholars to build relationships with other people. It also combines different architectural styles to develop a collective cultural environment. However, it is hard to decide which part of the building is designed in what style.

*Tietgen Dormitory*



*Figure 35, Tietgen Dormitory, (Source: Jen M. Lindhe)*

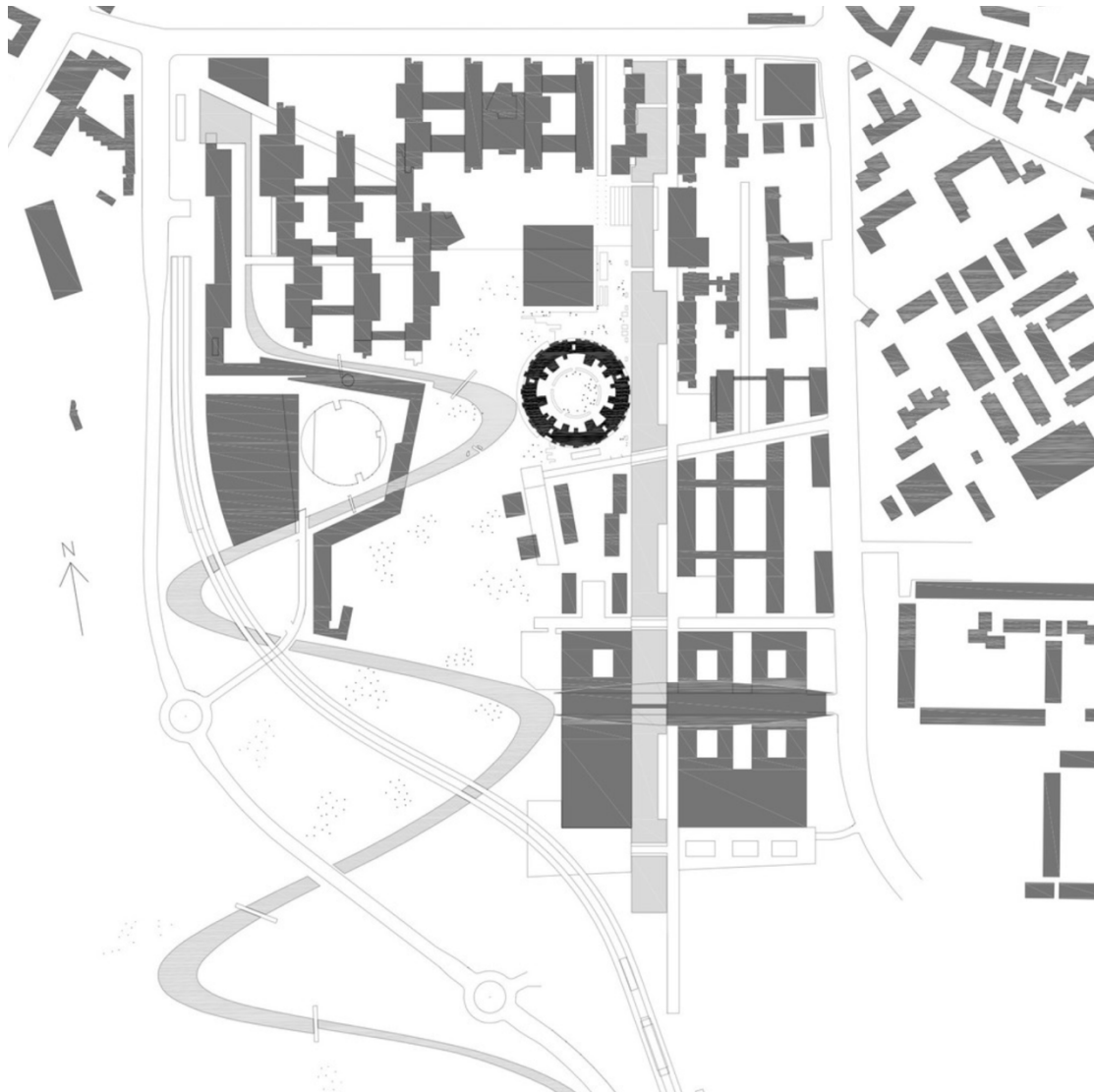
Architects: Lundgaard & Tranberg Architects

Location: Rued Langgaards Vej 10, 2100 Copenhagen, Denmark

Area: 26515.0 m<sup>2</sup>

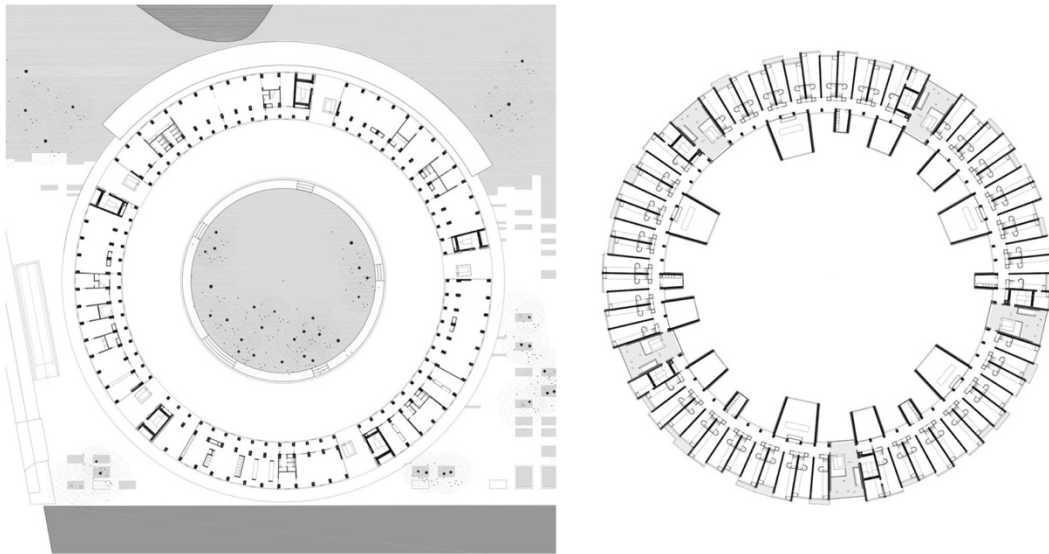
Project Year: 2005<sup>24</sup>

Tietgen Dormitory is donated by Nordea Denmark Fund. It is an excellent dormitory design to give an example of future dormitory design.



*Figure 36, Tietgen Dormitory, (Source: ArchDaily)*

The Tietgen Dormitory is located near Copenhagen University. The building itself was designed as a circle shape that placed in a grid urban neighborhood.



*Figure 37, Tietgen Dormitory Plan, (Source: ArchDaily)*

Tietgen Dormitory can accommodate 400 students. On the ground floor, the whole circular building is divided into five parts with open passages which lead to courtyard in the centre. In the floor plan, each section consist of 12 residence units, one

communal area, and kitchen where social interaction can happen. These shared gathering spaces face the courtyard where people can participate in public activities.<sup>25</sup>



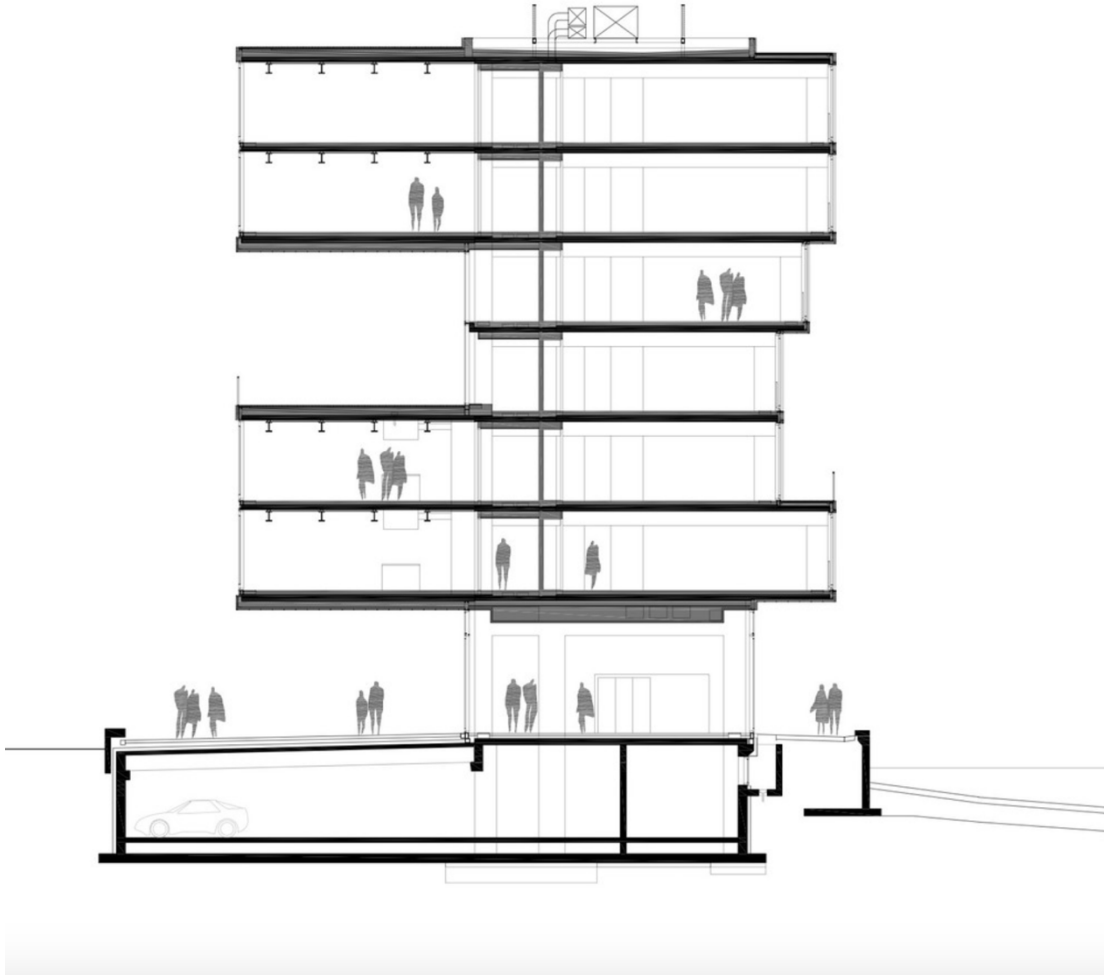
*Figure 38, Tietgen Dormitory, (Source: Jen M. Lindhe)*

The form of the building creates different individual and group activities in the same space. Students enjoy their private time in their own living dorms and have small

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25 “Tietgen Dormitory / Lundgaard & Tranberg Architects.” 2014. ArchDaily. February 6. <https://www.archdaily.com/474237/tietgen-dormitory-lundgaard-and-tranberg-architects>.

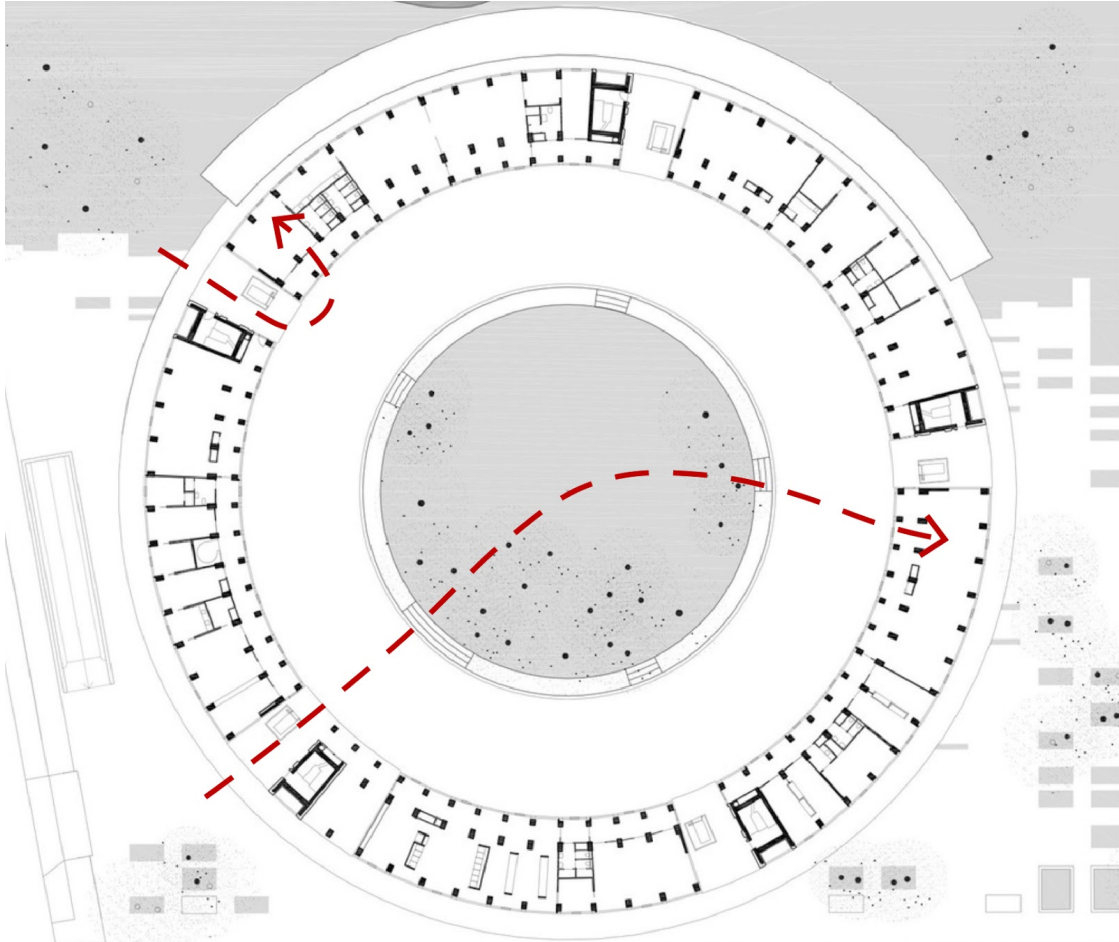
group activities in the communal space and kitchen. Also, courtyard is available for students to hold big public events.



*Figure 39, Tietgen Dormitory Section, (Source: ArchDaily)*

By looking at the architecture section, we can tell the private dorms for individuals are arranged in the outer side of the building, and the communal space is inner

towards the big courtyard. Parking lot for this building is designed underground to make a tidy building shape.



*Figure 40, Path Diagram, (Source: ArchDaily)*

Students in the Tietgen Dormitory make their own decisions of what lifestyle they want to live in this building. They can choose a dorm close to passageways without interacting with others and they can also choose a farther entrance to the community and go through the courtyard where social activities are held.

*International Students Residence at the Old Dominion University*



*Figure 41, International Students Residence at the Old Dominion University,*

*(Source: Old Dominion University)*

Location: Norfolk, Virginia

Area: 24,750 SF

Project Year: Mar. 2015 - Dec. 2016<sup>26</sup>

This international student house is a proposed program for The Old Dominion University. It is labeled as A Welcoming Home Away from Home. There are more

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<sup>26</sup> “International Student Residence.” 2017. Hanbury. Accessed December 15.  
<http://www.hewv.com/projects/global-friendship-house-international-student-residence/>.

than 1,500 international students that attend Old Dominion University each year. This international house aims to help some of them accustom to new environment sooner.



*Figure 42, International Students Residence at the Old Dominion University,  
(Source: Old Dominion University)*

This house is called Global Friendship House, which is a three-story building that offers 38 single and double rooms for 60 students. Public functional rooms are on the lower level and students live on the upper floors where also have sharing spaces like balconies, kitchens and study rooms.<sup>27</sup>

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27 “International Student Residence.” 2017. Hanbury. Accessed December 15.  
<http://www.hewv.com/projects/global-friendship-house-international-student-residence/>.

## Chapter 6: Program

### Social Behaviors

The diagrams show a more individualistic trend group with a more collectivistic trend group and differences among their group member relationships.

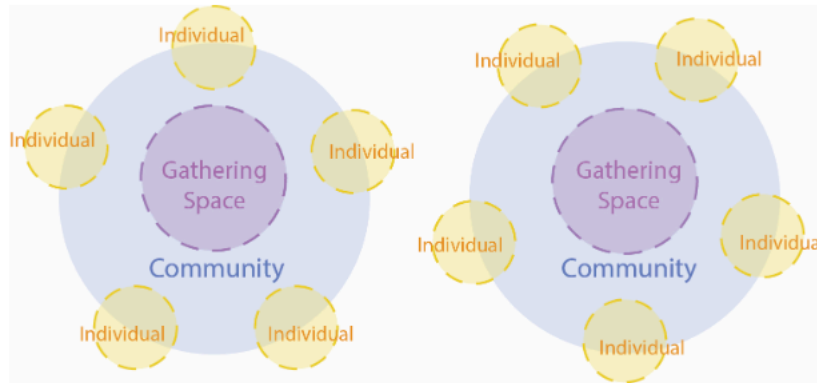


*Figure 43, Collectivism Group Diagram, (Source: Author)*

This bubble diagram above stands for a smaller group where the group members can develop closer relationships which is considered as a more individualistic one. The fewer people in the group, the higher possibility of closer relationships occurring. To design a community for these groups, the residential housing should be relatively near each other, which provides opportunities for them to involve with each other's lives.

A sharing space is initial for this part of design because they need a mutual space that they can share their own experiences and interact with others. As the designers, we can design this space to be somewhere they have to go through daily to increase their social behaviors possibilities. Even though we design like this, residences can decide how long they want to

hang out in the gathering space. For example, after the resident parks his/her car in the garage, he/she has to use the passing way through the gathering space to get to their home. But if they don't have a car, they can always use the stairs or elevators to go home directly.



*Figure 44, Individualism Group Diagram, (Source: Author)*

This bubble diagram stands for a verse situation. This diagram shows a more individualist group within more group members in. Individuals in these groups can make friends with each other, but they tend to be more independent based on their lifestyle. Other than developing close relationships within the group, these groups are more comfortable to take other members into this community. The design for this kind of group should be slightly changed into some separated housing. Group members still care about each other, but they are independent most of the time.

A sharing space should be designed as a separated space which could be placed aside. This place should be somewhere they can choose to go or not. It is also a place where people from outside are more comfortable with because these group members are more open to take in new people.

## Final Site Selection

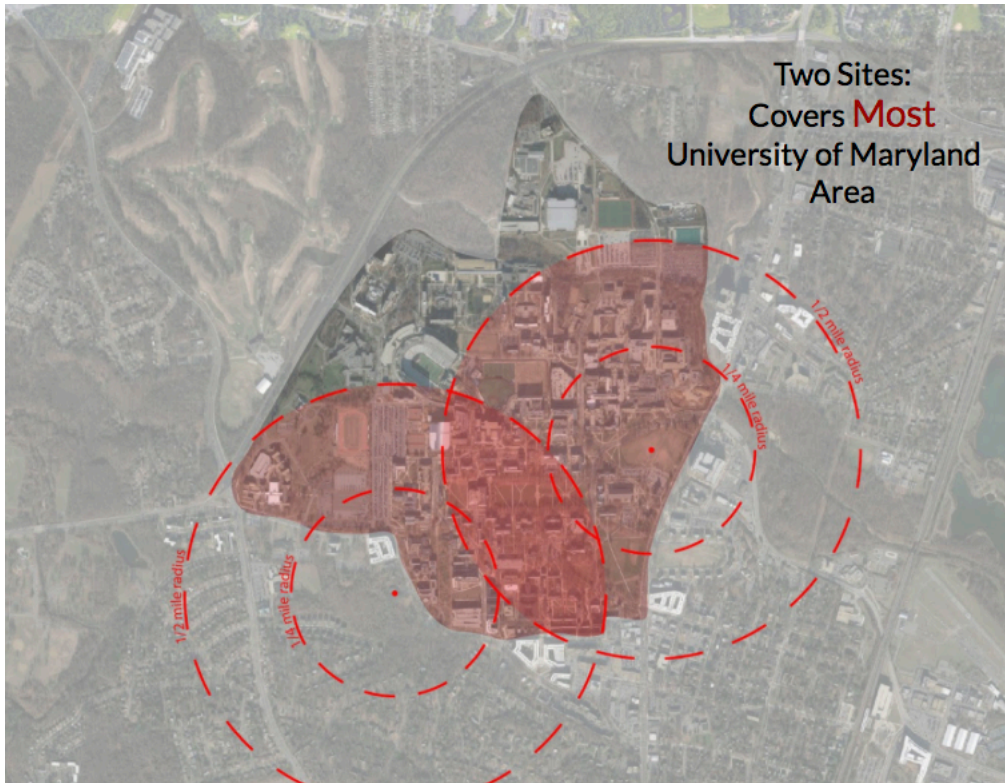


*Figure 45, Sites for Design, (Source: Author)*

These sites are selected for this thesis design. The one on the left are called Park Site and the other one on the right are called Urban Site. They are quite different in characters and provide different opportunities for this thesis.

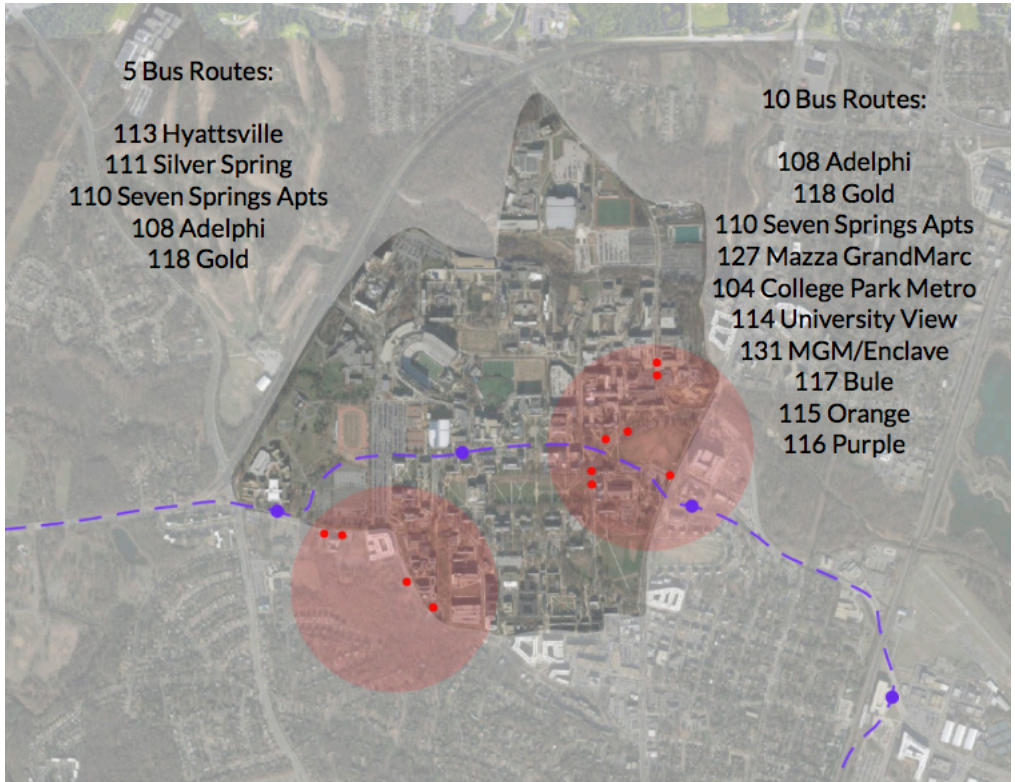
The Urban Site is being added because there was an international student housing program that was proposed several years ago on this site.

## Park Site & Urban Site



*Figure 46, Five/Ten Minute Walks from Both Sites, (Source: Author)*

Ten minute walks from both sites covers most area of the University of Maryland, and the overlay area of ten minute walks from both sites covers the center of the University of Maryland.

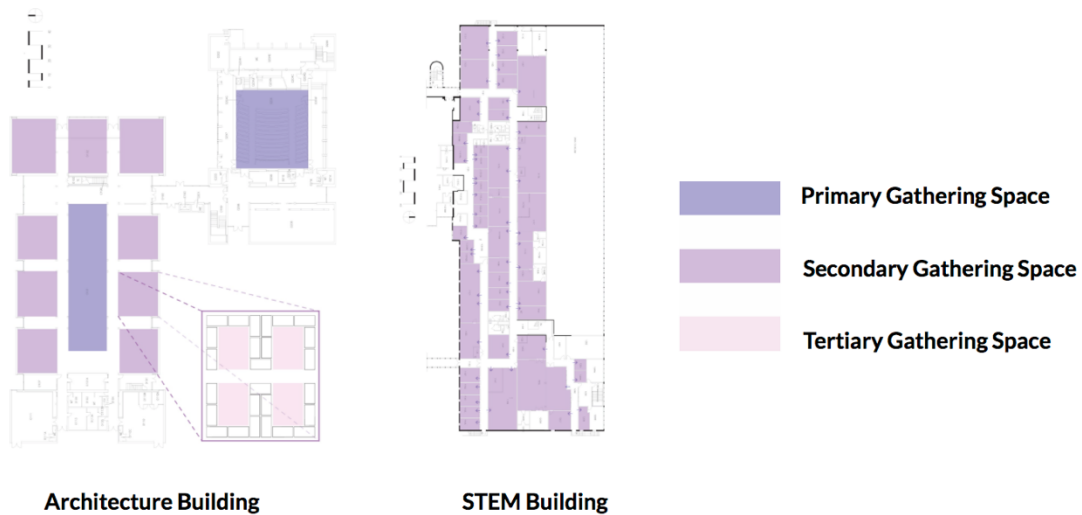


*Figure 47, Bus Stops in Both Sites, (Source: Author)*

Both sites can access several umd bus stops in five minute walk which enable convenient access to both sites for students and publics.

## Gathering Spaces

In Architecture major, because of the studio system, students in Architecture have closer friendship than other STEM majors. By analyzing how architecture influence these social activities, the reason can be found out.



*Figure 48, Gathering Spaces in Architecture Building and STEM Building,*

*(Source: Author)*

In Architecture major, there are many kinds of gathering spaces. The primary gathering spaces are the Great Space and the Auditorium which enable large group of people. The secondary spaces are studios where students do their design works. The tertiary gathering spaces are desk groups in studios which form students into small groups and communicate better. The STEM buildings only have secondary gathering spaces where students take courses. After their class, they leave classrooms immediately and loss the chance to interact with others.

## Program Bubble Diagram

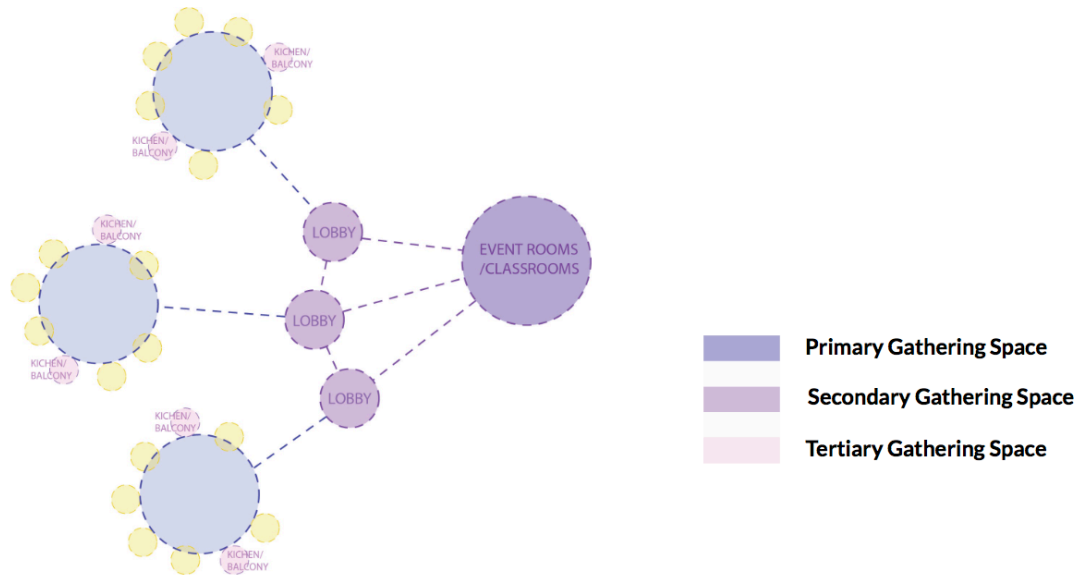


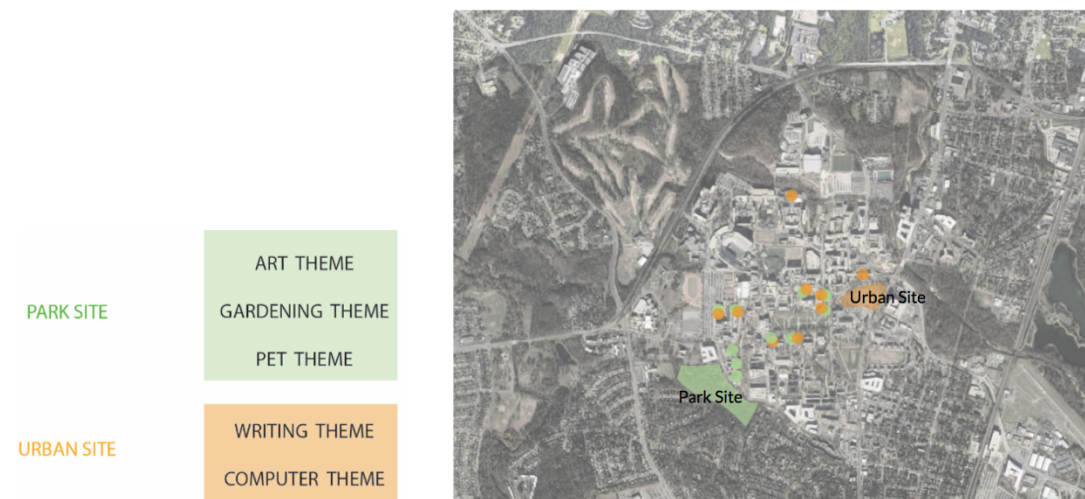
Figure 49, Program Bubble Diagram, (Source: Author)

So, different hierarchies of gathering spaces should be designed in this thesis program. The primary gathering spaces should be classrooms and event rooms which can accommodate different events happen. The secondary gathering spaces should be lobbies where can be studio setup. The tertiary spaces should be kitchens or balconies in each group of units.

## Secondary Gathering Spaces

For most people, it is hard for them to be interested in learning different culture backgrounds on purpose. So, culture integration can be taken as a consequence of this International Student Community, but it cannot be the reason for people getting around.

If we want to get people participate in social activities more often in these groups, different themes should be added to these secondary gathering spaces. The theme could be something that they are all interested in or something related to their life goals. As students, this analysis could be divided into two parts: their spare time activities as their interests or their school studying as their goal.

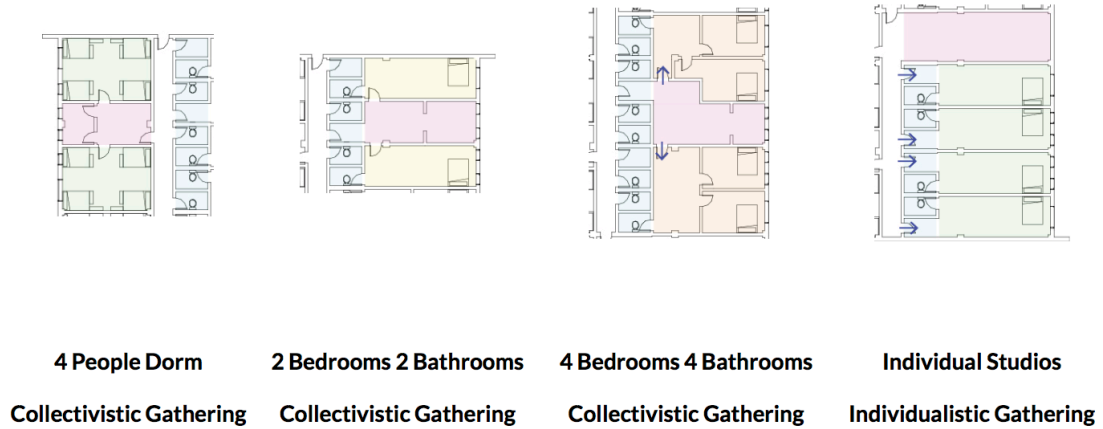


*Figure 50, Theme Proposed, (Source: Author)*

So, the diagram above shows an example of themes that proposed for each site. With the development of University of Maryland, these functions of the International Student Community should change over time. These themes can vary according to the needs of residents around the site. Only in this way can the International Student Community develop into the most beneficial community to students, school and even the whole society. The

International Student Community design should choose these themes according to site selection, community backgrounds and other factors.

**Tertiary Gathering Spaces**



*Figure 51, Tertiary Gathering Space in Different Units, (Source: Author)*

Tertiary Gathering Spaces are living rooms, balconies and kitchens. They are designed differently in different units.

## Program Diagrams

Because the features of Site Park and Site Urban is different, so the programming design is changing too. The bubble diagrams below show the function categories and relationships that are designed for each site in sections and plans.

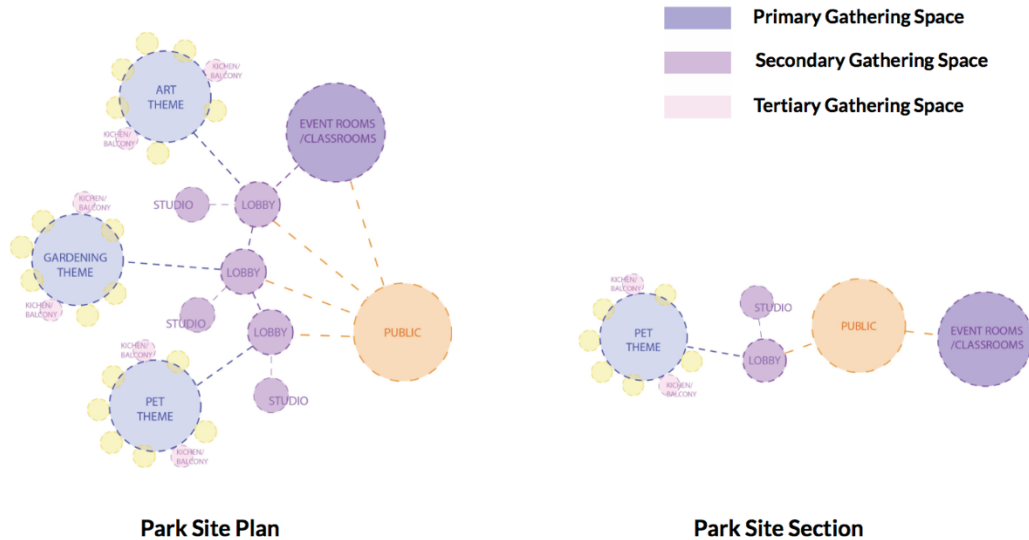
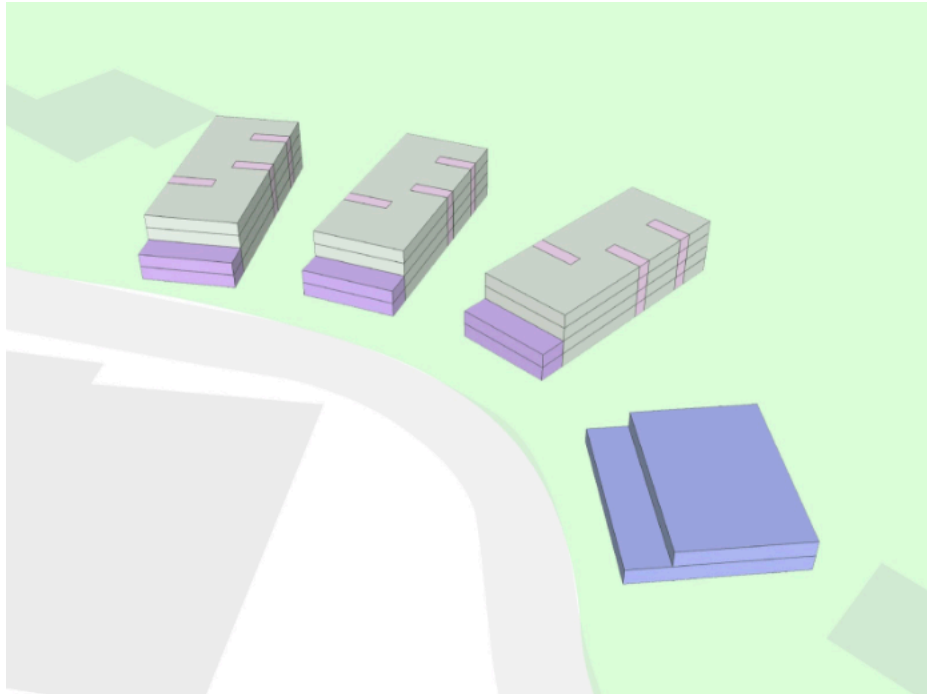


Figure 52, Bubble Diagram for Park Site, (Source: Author)

First, this bubble diagram shows the relationship between two major parts of this International Student Community: Living space and Public Space. A living lobby and an activity lobby are the main transit space to each part, and they also relate to each other closely. The living lobby connects these groups, so it should be somewhere that people live in this community can meet each other. When they go back to their living group, they can develop further relationship with each other. Second, The Public Lobby is considered as

somewhere these services are provided not only to the residents, but also public people. In this way, this community can attract more people into this community.

Because the stream goes through the Site Park, the design should also consider the potential of the stream as somewhere people can appreciate the scenery of the water. In other words, the stream is a main feature that should be seen thoughtfully in the design.



*Figure 53, Massing Diagram for Park Site, (Source: Author)*

The diagram also shows where the primary, secondary, and tertiary gathering spaces in the building.

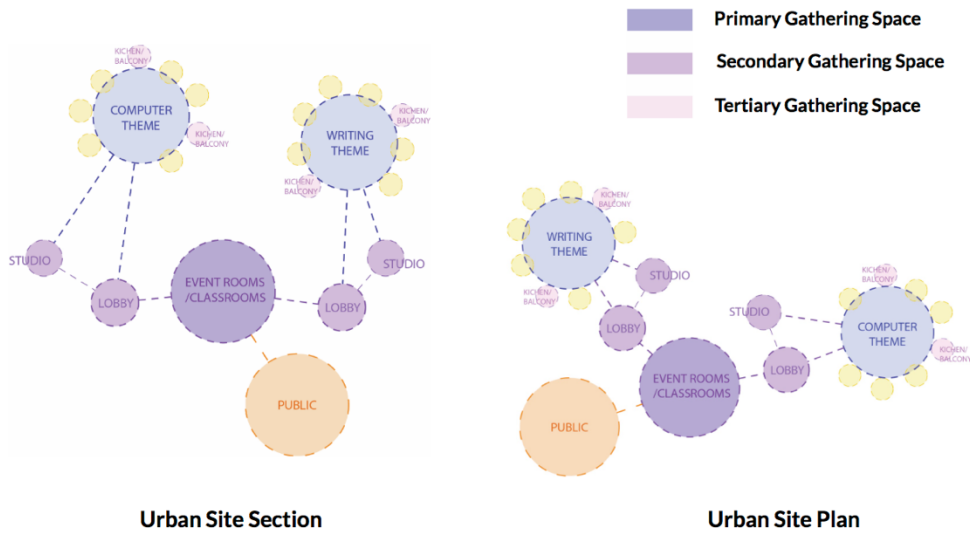
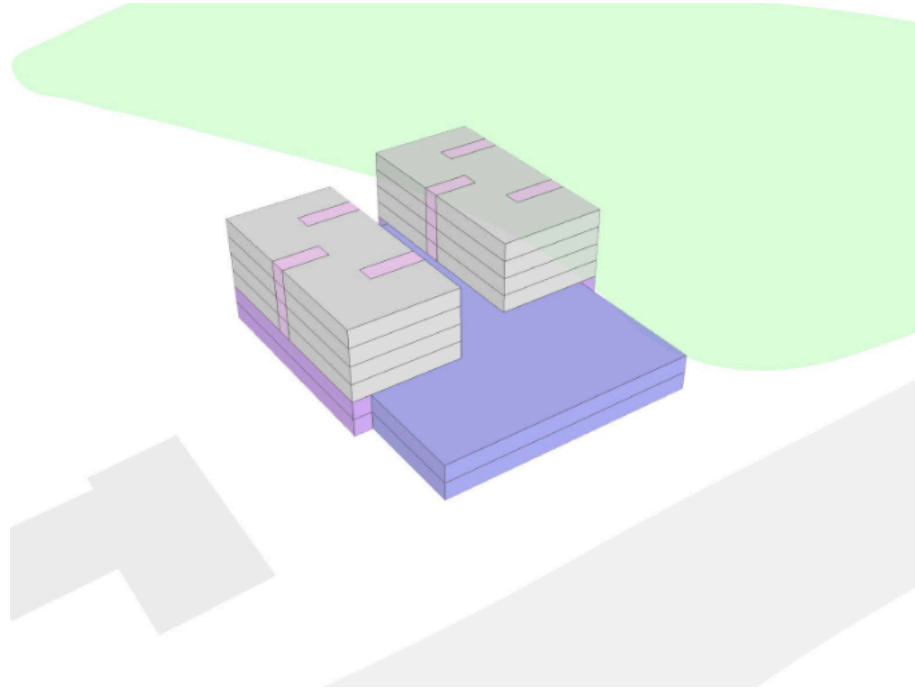


Figure 54, Bubble diagram for Urban Site, (Source: Author)

This bubble diagram for Site Urban is similar to the diagram for Site Park. But the relationships are different. The gathering spaces distribute vertically. The primary gathering spaces are on the ground floor, the higher the level, the more private spaces are.



*Figure 55, Massing diagram for Urban Site, (Source: Author)*

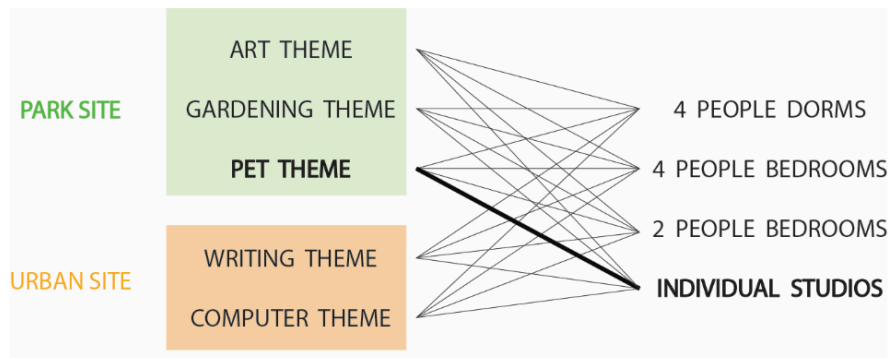
The primary gathering spaces and secondary gathering spaces are on the ground level, the tertiary gathering spaces are distribute in the upper level of the buildings.

## Multiple Opportunities

According to the analysis above, it is easy to find out there are different opportunities for students to choose in this living community. They can choose which site to live, which theme they want to live in and what kind of room they want.



**Alice, Art Major, love pets, like living by herself, like nature, used to running in her free time**

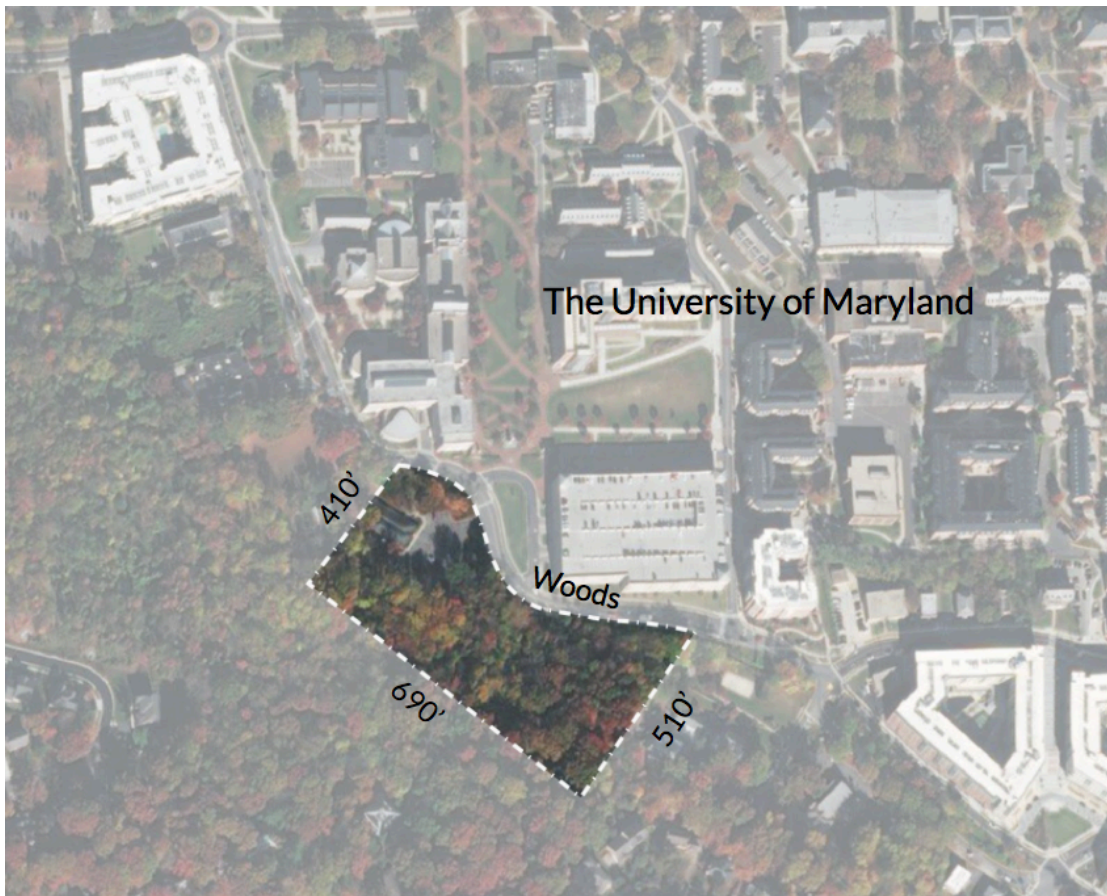


*Figure 56, Users Options, (Source: Author)*

The Picture above shows an example of one user's option. Different people may choose different living style in this community. In 20 options, people choose which one is the most suitable for them.

### Site Park Analysis

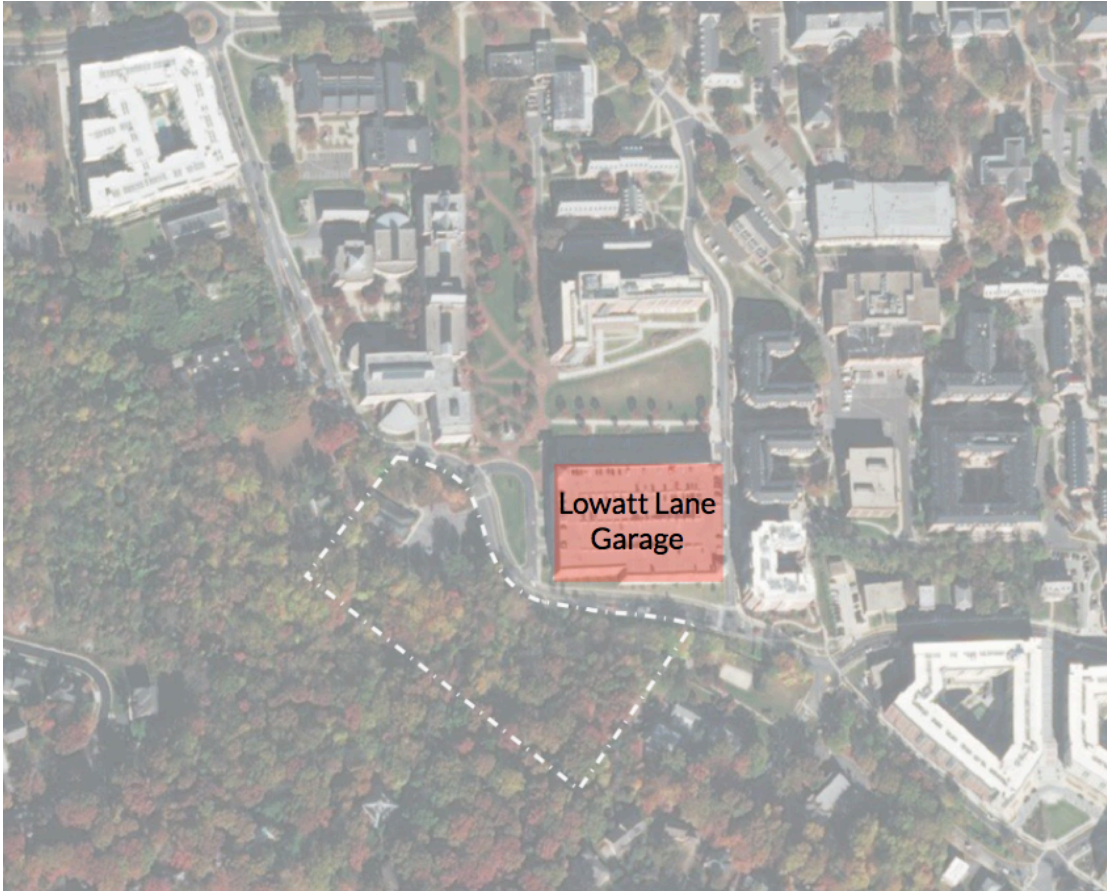
This thesis choose park site as an example for how this International Student Community could be built. Park site have an extreme topography and a stream going through the whole site. So, this site has more challenges to be a site for building, in another word, it provides more opportunities. If this thesis could solve this site properly, it can also be built on the urban site too.



*Figure 57, Park Sites, (Source: Author)*

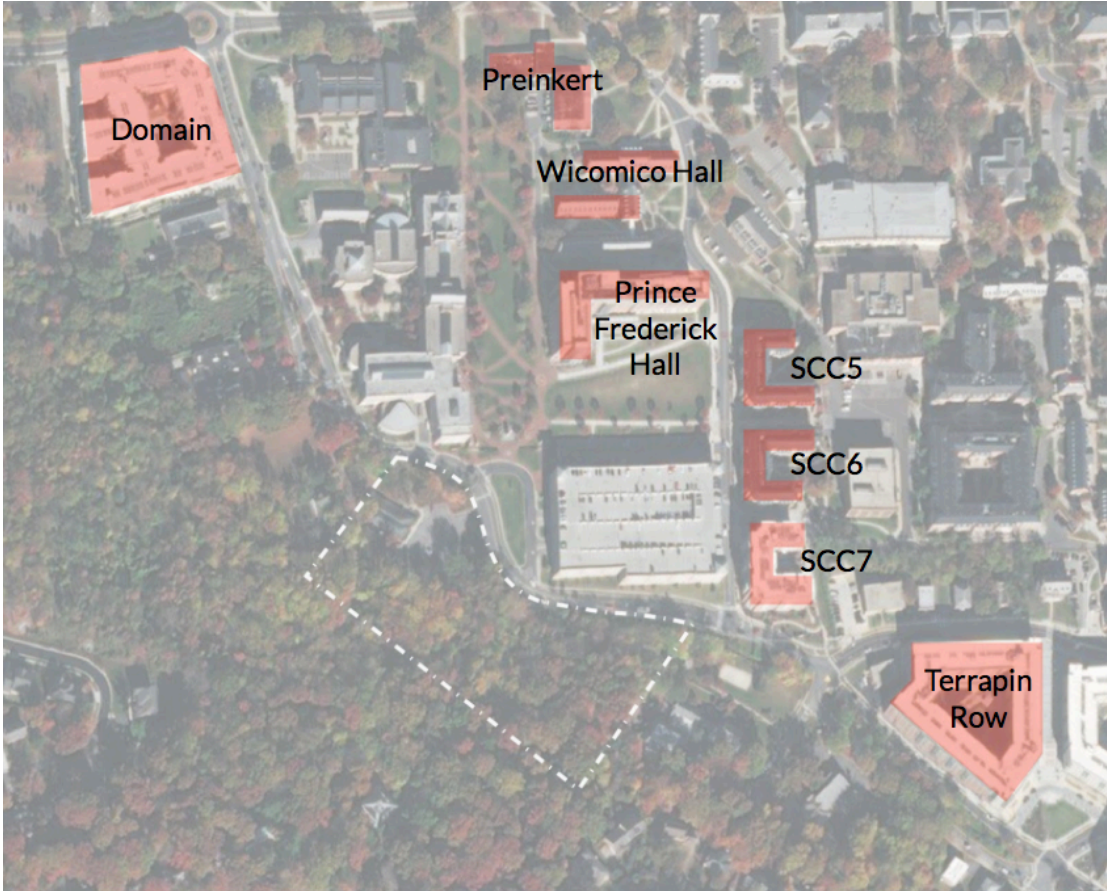
The park site is a wood area that located at the edge of the campus.





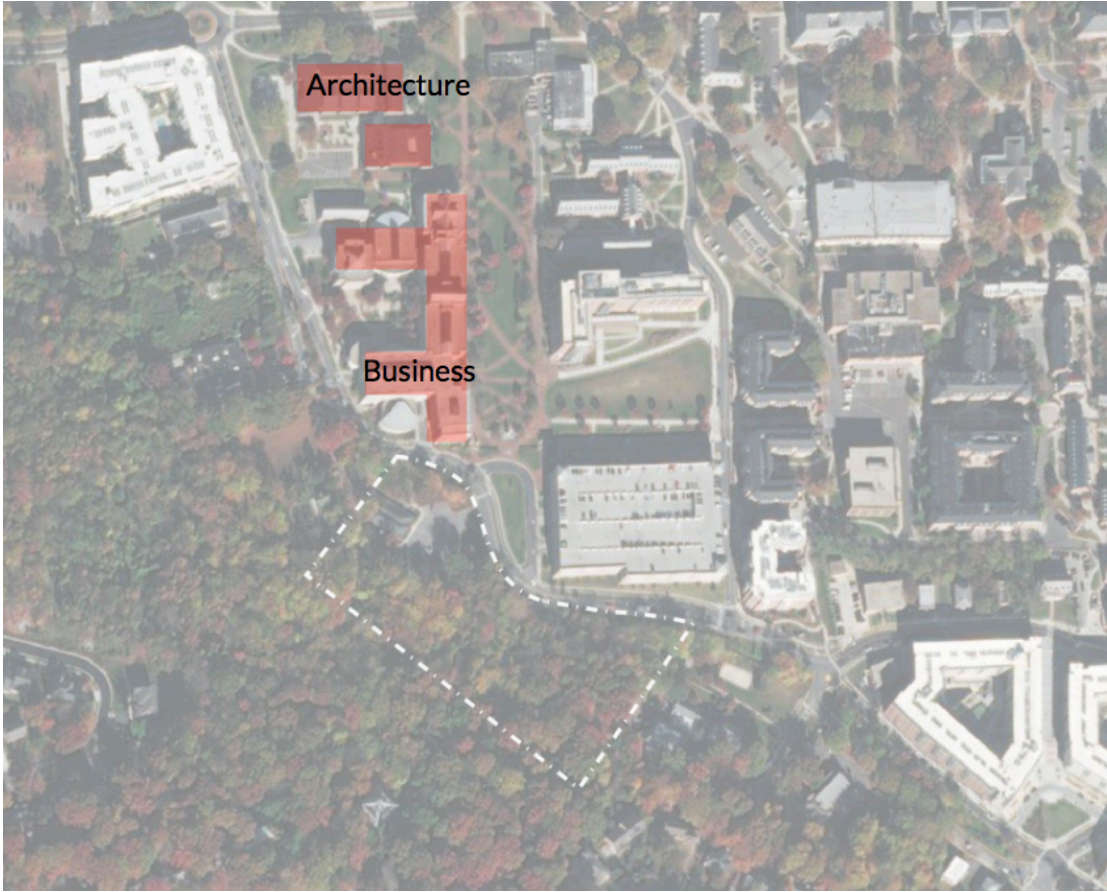
*Figure 59, Parking Garage near Park Sites, (Source: Author)*

There is a Garage that across the two-lane street, so parking spaces is not necessary for this International Student Community design.



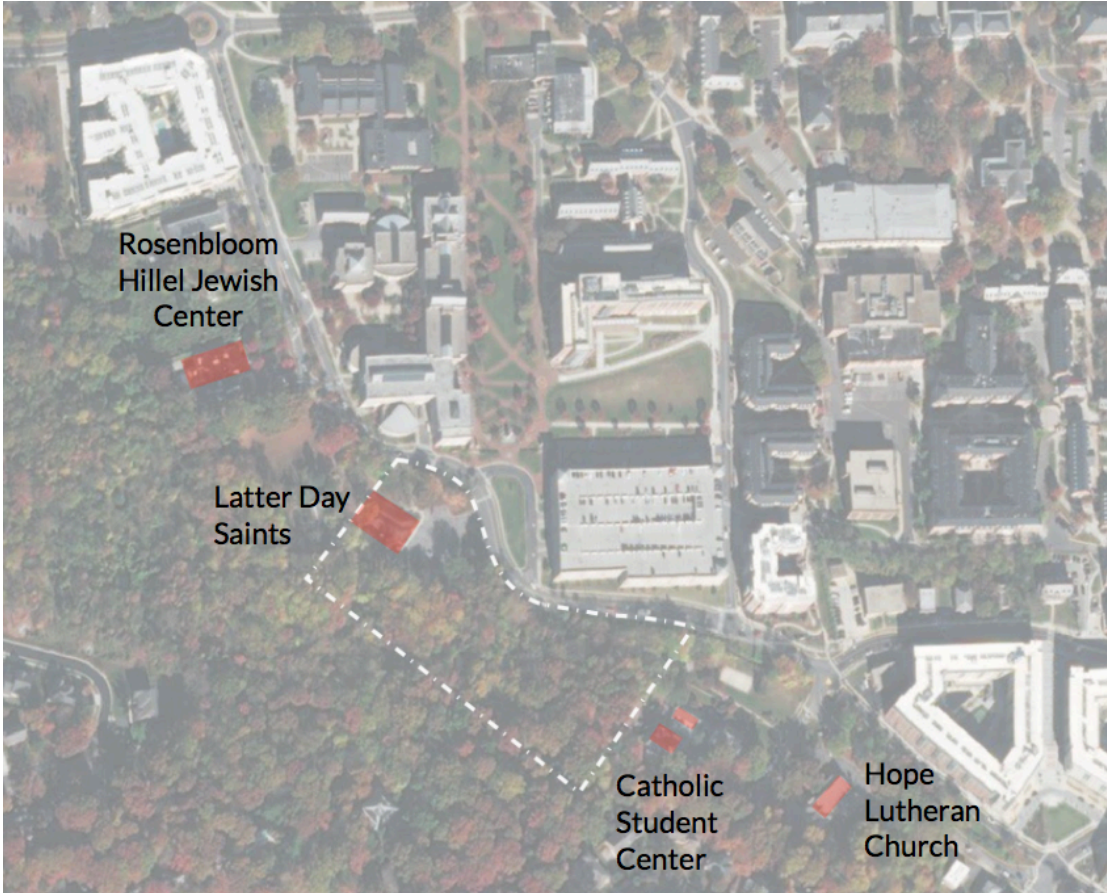
*Figure 60, Student Housing near Park Sites, (Source: Author)*

Several student housing buildings are located near the site.



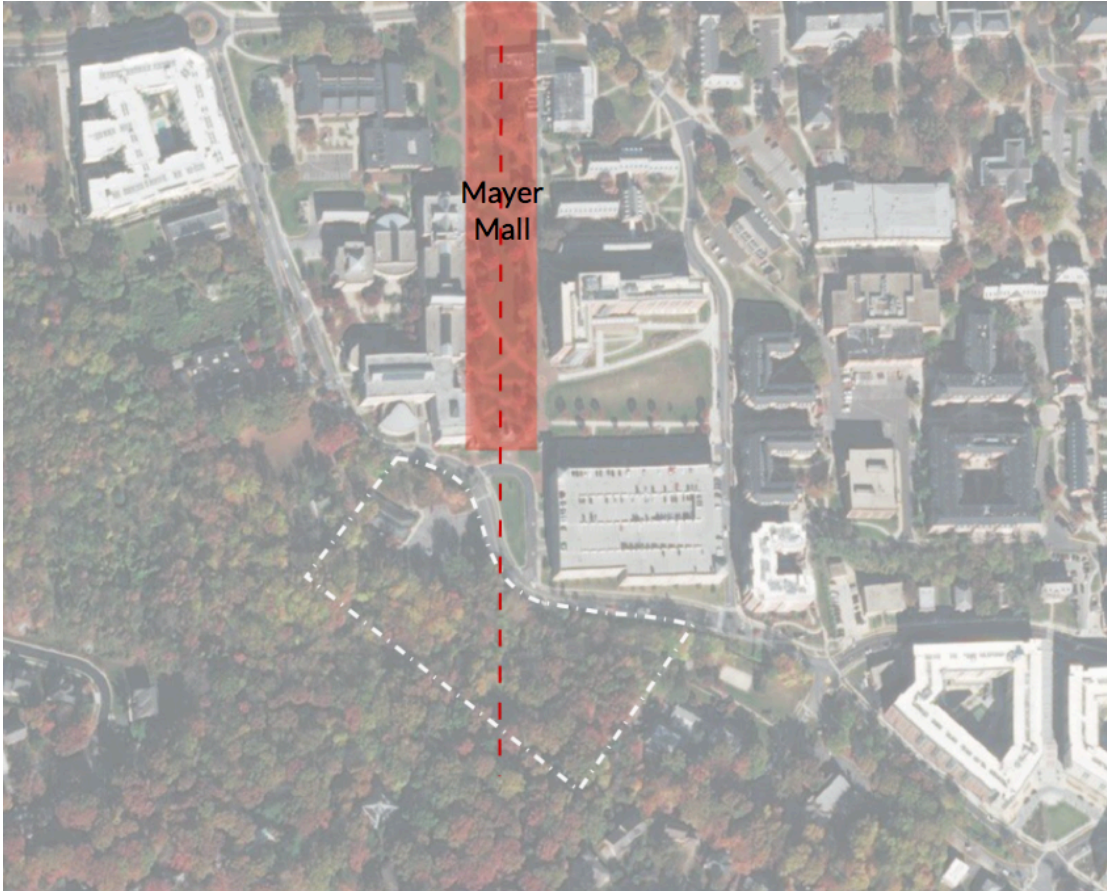
*Figure 61, Academic Buildings near Park Sites, (Source: Author)*

Several academic buildings are located near the site.



*Figure 62, Religious Buildings near Park Sites, (Source: Author)*

Some religious buildings are hidden in the woods.



*Figure 63, The Mayer Mall near Park Sites, (Source: Author)*

The Mayer Mall has the direct view towards the site.



*Figure 64, Nature in The Site (Before & After), (Source: Author)*

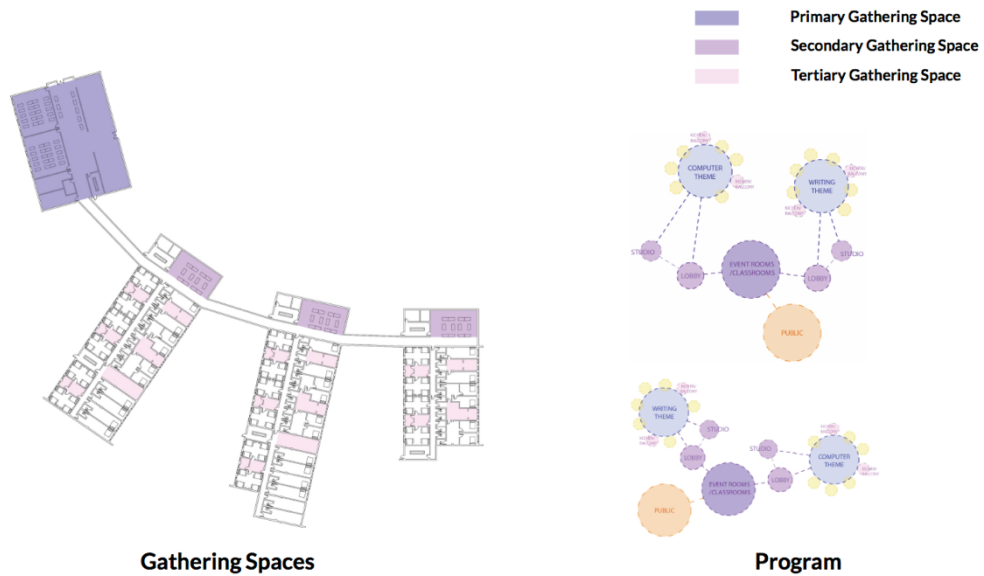
The building is designed in the wood, and maximum the view to the nature.



*Figure 65, Stream in The Site (Before & After), (Source: Author)*

The route of the stream has been moved to give the water body an uncovered condition to apply healthy water to the plants near the water.

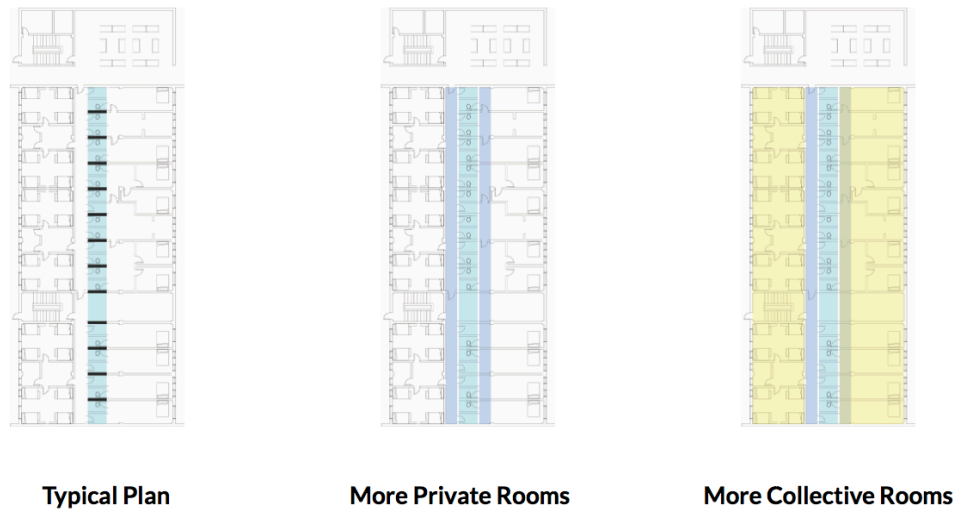
## Building Design



*Figure 66, Building Design in Process, (Source: Author)*

The plan above shows where the primary gathering spaces, secondary gathering spaces and tertiary gathering spaces are in the building. This plan has been changed a little in the later design process, but the location of these gathering spaces has not been changed.

## Flexible Plan Design



*Figure 67, Flexible Plan Diagram, (Source: Author)*

The bathrooms are located in the middle, and two corridors are on the each side of the bathrooms. In some cases, the corridor could be embedded in the units, and make users have direct access to the bathroom. In other cases, users need to go across the hallway and take the bathroom. These cases depend on what unit combination developers want. This design makes the plan very flexible to be changed into different units later with minimum financial cost.

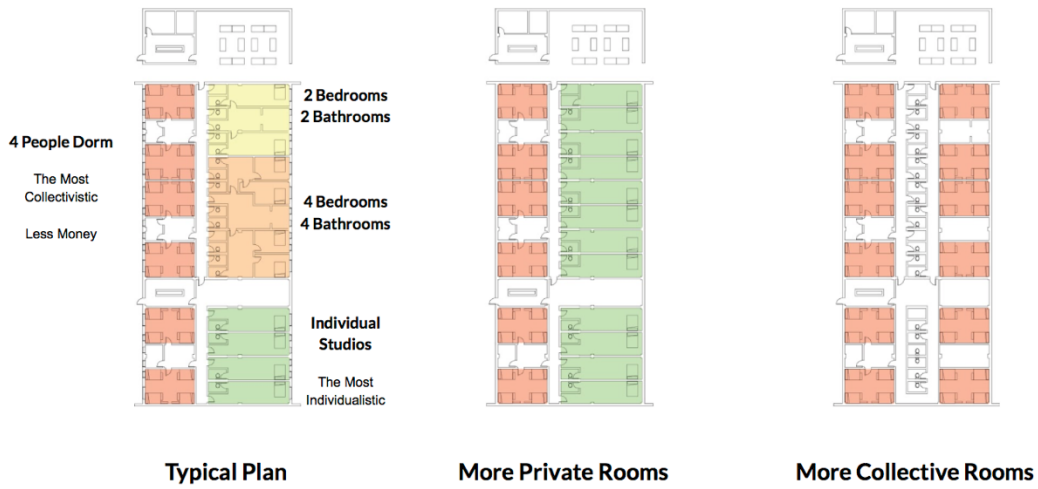


Figure 68, Flexible Plan Diagram, (Source: Author)

The diagram above shows some possibilities that this plan could be changed to.

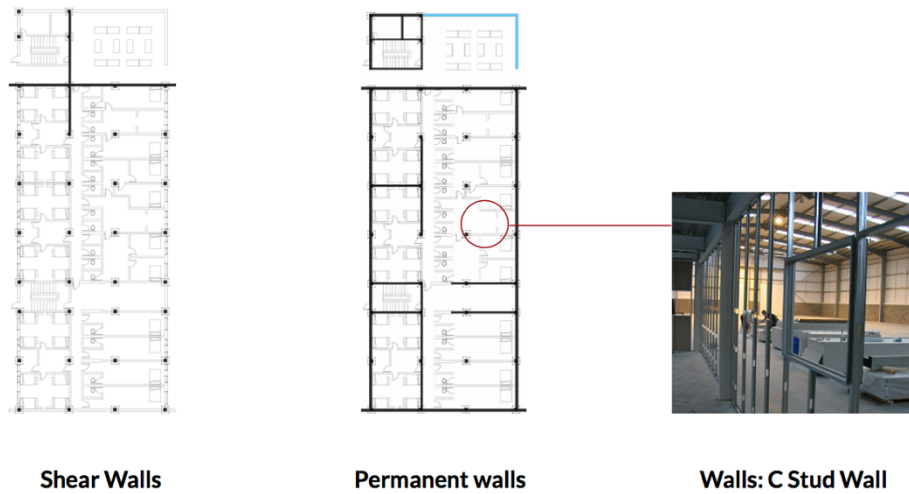
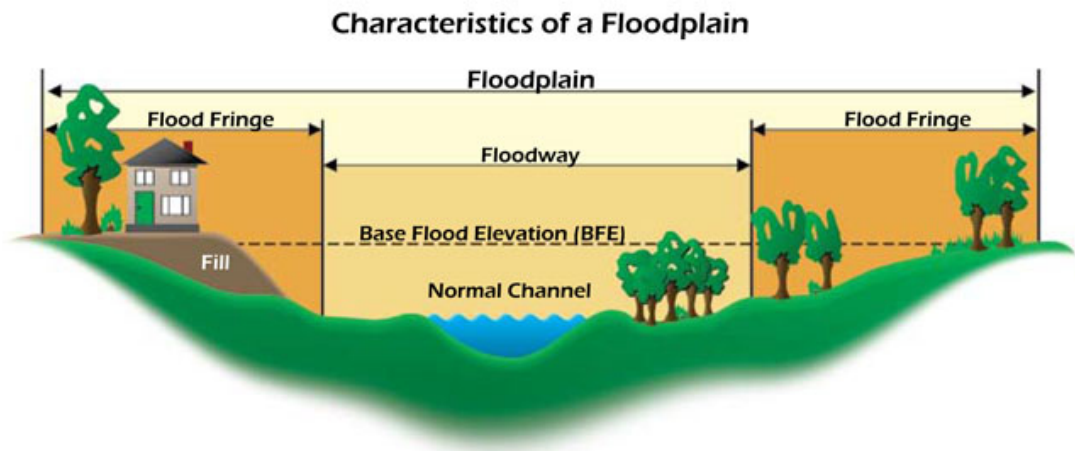


Figure 69, Building Structure, (Source: Author)

The shear walls of the building sit on the ground. The permanent walls and flexible walls are all use C Stud Wall.

## Structure Diagrams

Because there is a stream going through Site Park, the site has a flood zone where buildings cannot be built directly. The stream itself is considered as a normal channel. There are some areas that near the stream are called Floodway. The diagram below shows the section relationship between flood zone and buildings. The buildings should keep a safe distance from the flood zone and should be built in the flood fringe.



*Figure 70, Section diagram for floodplain, (Source: Thurston County)*

The structure of the buildings in this flood zone area can be designed differently. The diagram below shows some different design strategies of building structure.

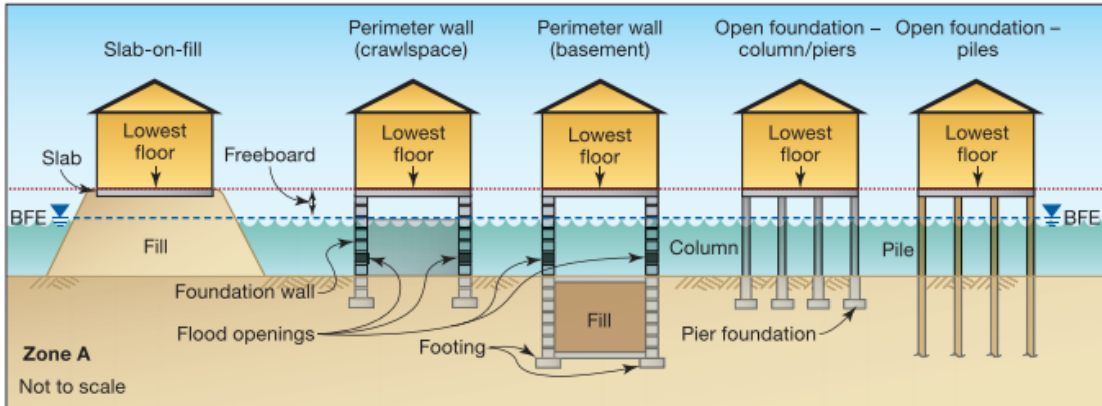


Figure 71, Building Structure in floodplain, (Source: Thurston County)



Figure 72, Building Structure Design, (Source: Author)

The building use pile structure to eliminate impact on trees.

## Façade Materiality Analysis

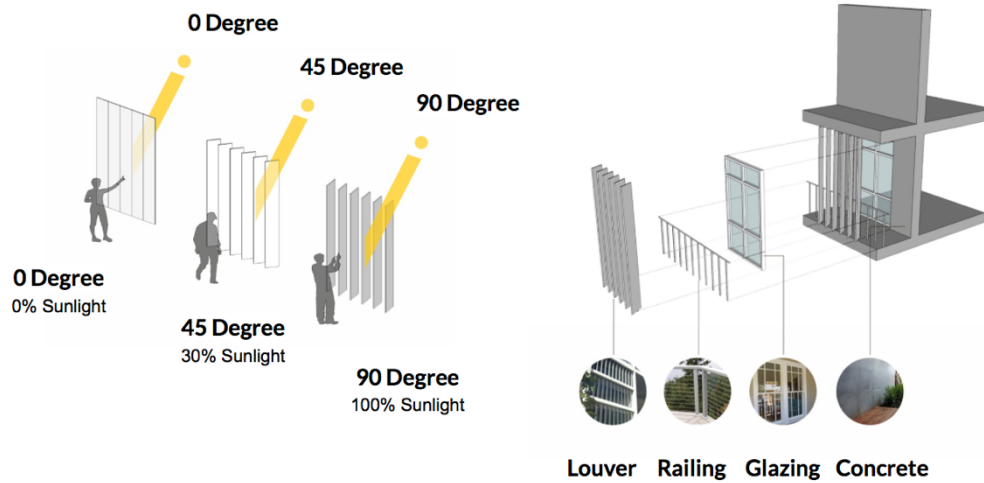


**Concrete & Glass with Trees**

**UMD Red Brick with Trees**

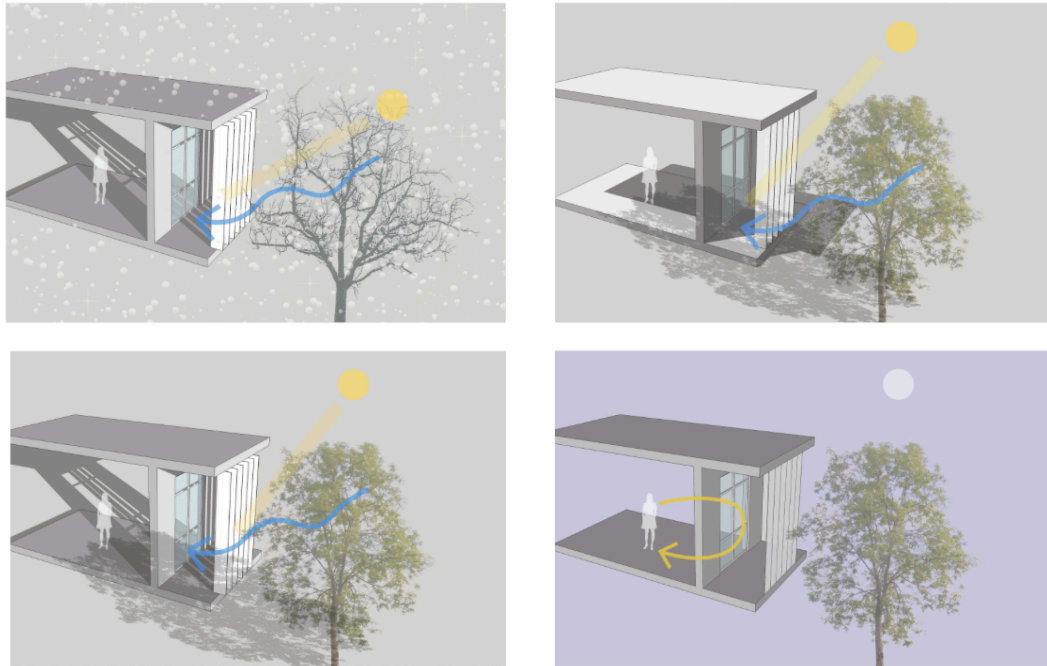
*Figure 73, Façade Materiality Analysis, (Source: Author)*

The material of the building is designed to use pure color concrete and glazing to show nature very well instead of using dark color UMD Red Brick.



*Figure 74, Façade Materiality Analysis, (Source: Author)*

The Louvers are used in the building façade design.



*Figure 75, Façade Performance, (Source: Author)*

In different situation, the louvers perform differently. In winter, the louvers are opened and penetrate direct sunlight into the room and keep out the snow. In summer, although the louvers are opened, they still can prevent direct sunlight to the room and they can ensure ventilation going through the room.

In spring daytime, the louvers are opened to ensure the ventilation, and the shadows of trees could help with preventing direct sunlight. At night, the louvers can be closed up to keep the building warm.

## Chapter 7: Architecture Work

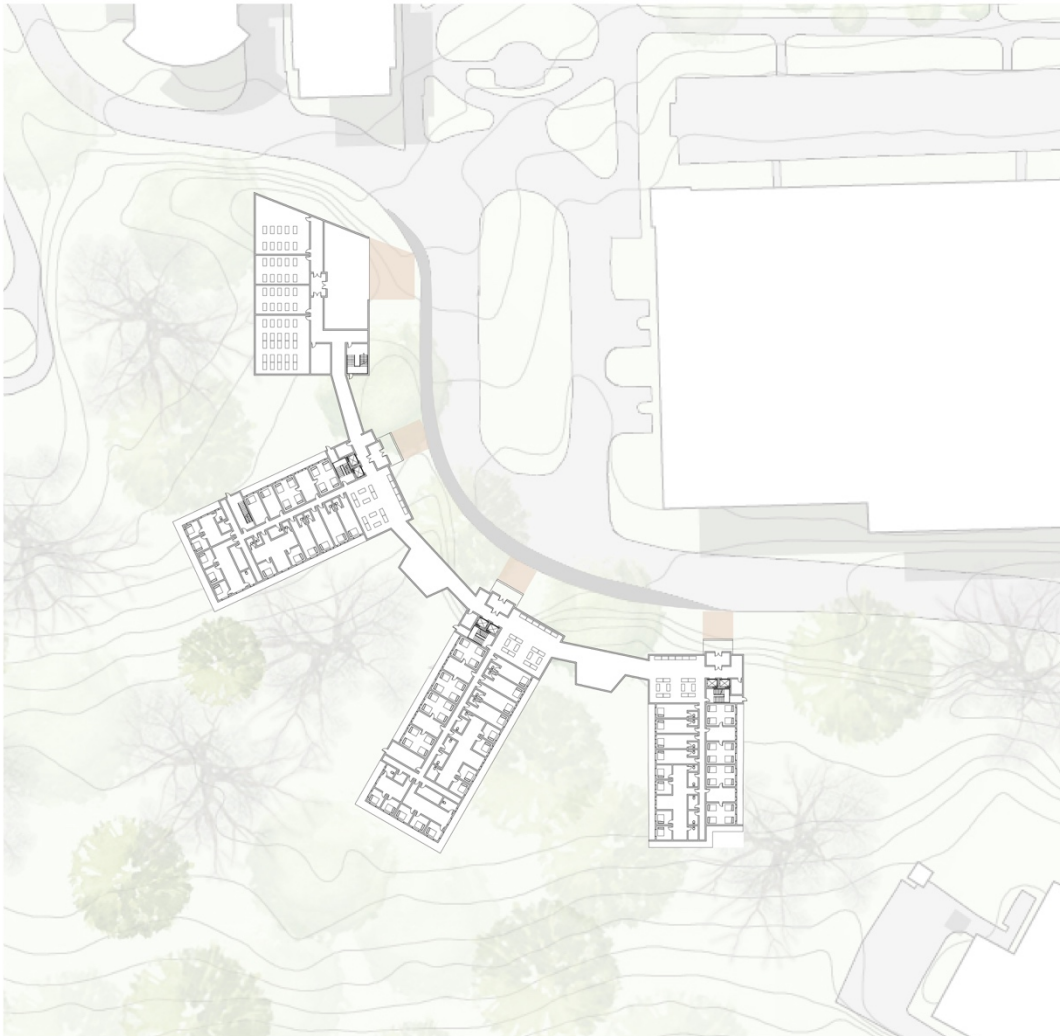
### Master Plan



*Figure 76, Master Plan, (Source: Author)*

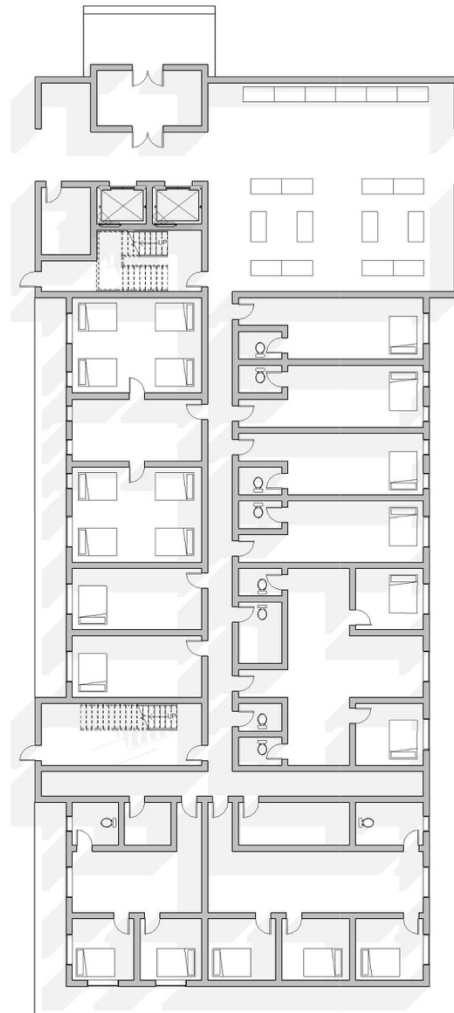
The Master Plan shows the relationship of the proposed International Student Community with the surrounding buildings and the wood.

## Architecture Plans



*Figure 77, Architectural Plan, (Source: Author)*

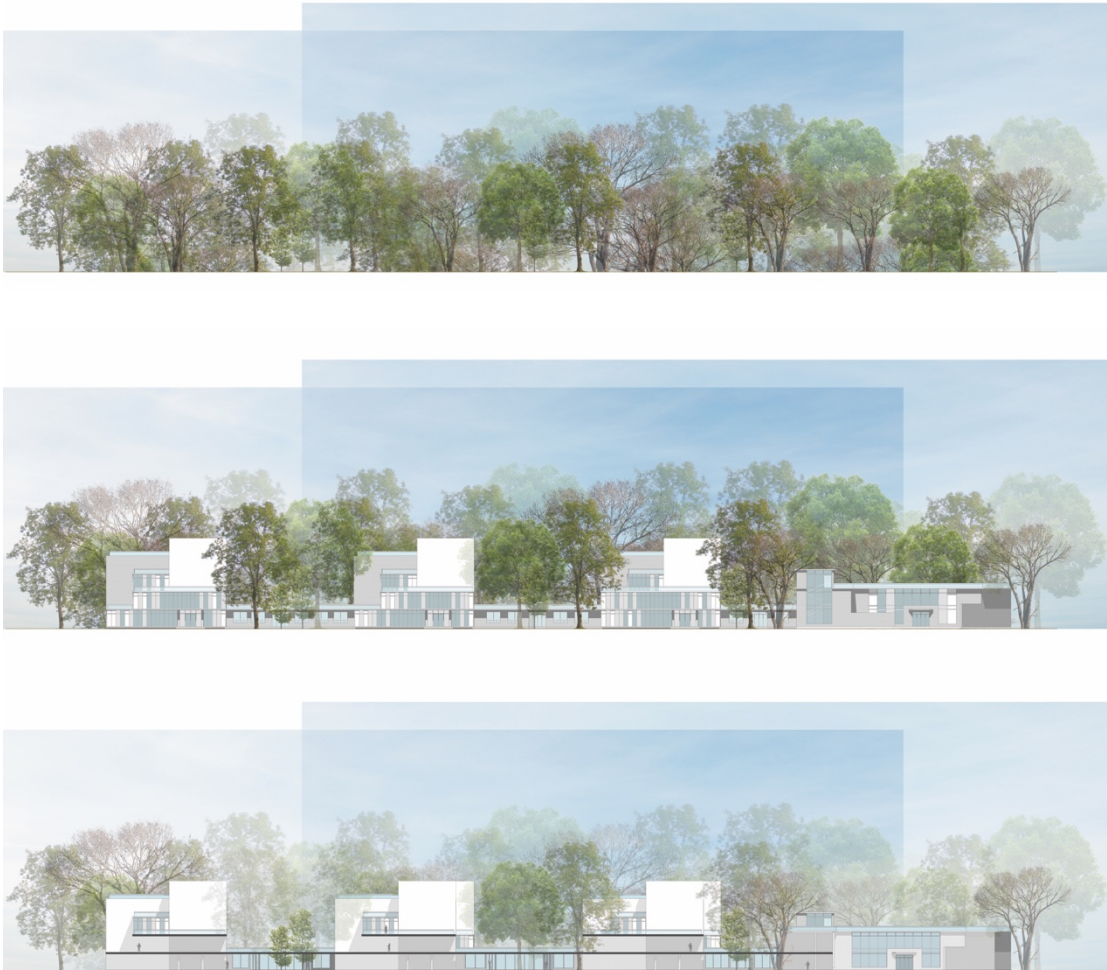
The overall building consists with four parts: one public international center and three residential buildings. There are connection parts that connect all the buildings together. The picture shows the first floor plan. Each residential building plan varies according to the context.



*Figure 78, Typical Residential Floor Plan, (Source: Author)*

This picture shows an example of floor plan. The plan could be varied according to the location of the building and unit combination types.

## Architecture Elevation & Section



*Figure 79, Original & Elevation & Section along Mowatt Ln, (Source: Author)*

The rendering shows original site, elevation and section along Mowatt Ln from the same angle. The pure color of the building materials makes minimum influence on the nature wood. Also, the buildings form a barrier to keep out noise from the neighborhood on the side of the wood.

## *Residential Elevations*



*Figure 80, Residential Elevations, (Source: Author)*

The residential parts of the building sits on the extreme topography, so the front part of the building sits on the ground and the rest of the building is structured by piles which enable minimum ruining to the trees.

*International Student Center Elevations*



*Figure 81, International Center Elevations, (Source: Author)*

The International Student Center of the building is in the ground level. Gig glass of the building gives students and visitors the feeling of welcome. The building includes event rooms and classrooms which enable various events going on in this building.

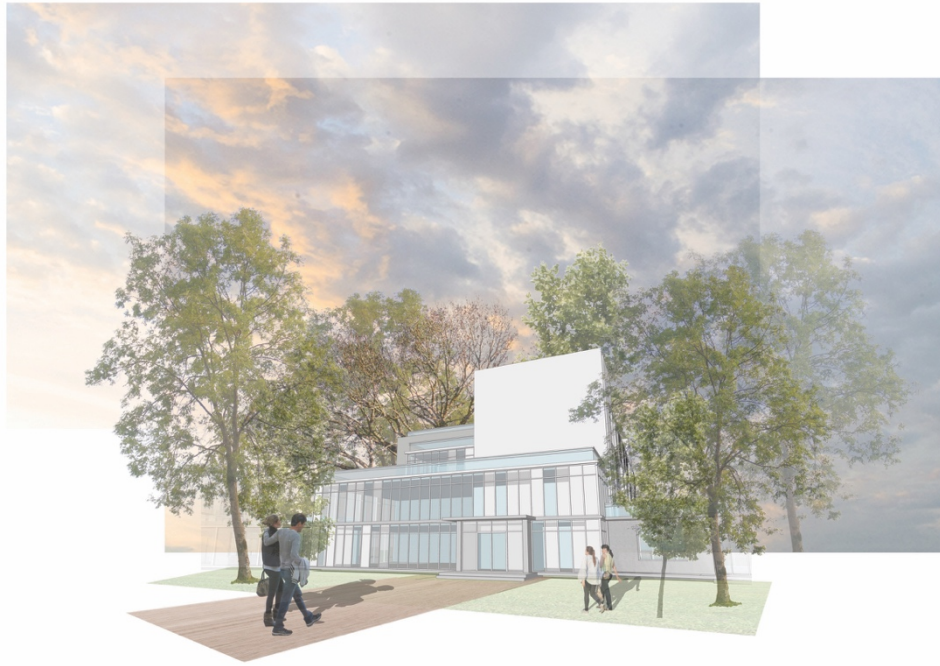
**Exterior View**



*Figure 82, View along Mowatt Ln, (Source: Author)*



*Figure 83, Driving Experience along Mowatt Ln, (Source: Author)*



*Figure 84, Residential Entrance, (Source: Author)*



*Figure 85, Roof Rendering, (Source: Author)*

Interior View



*Figure 86, Event Room (Primary Gathering Space), (Source: Author)*



*Figure 87, Studio (Secondary Gathering Space), (Source: Author)*

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