

Anastassiya Smirnova, Claire Bunton, Hyun Soo Kanyamuna, Jessica Antkiw, Marisa Gullaci, Nicola Salvino

University of British Columbia

GEOG 371

November 26, 2015

Disclaimer: "UBC SEEDS Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student project/report and is not an official document of UBC. Furthermore readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or a SEEDS team representative about the current status of the subject matter of a project/report".

UBC SEEDS SOCIAL MAPPING PROJECT



A Space of Mind: Mapping Spatial Usage at the University of British Columbia UBC Social Ecological Economic Development Studies (SEEDS) Student Report

Hyunsoo Kanyamuna
Jessica Antkiw

Claire Bunton
Marisa Gullaci

Nicola Salvino
Anastasiya Smirnova

November 26, 2015
University of British Columbia
GEOG 371: Research Strategies in Human Geography
Instructor: Dr. Siobhán McPhee

TABLE OF CONTENTS

Acknowledgements..... 3

Executive Summary..... 4

Introduction 6

Methodology 8

Literature Review.....12

Analysis17

Significance of Research.....20

Future Research Directions22

References24

Appendix.....27

ACKNOWLEDGEMENTS

We would like to extend our most sincere thanks to everyone who has contributed to the success of the Social Mapping Project. It is our hope that the findings of this report will serve to the betterment of the University of British Columbia's public realm.

UBC Campus + Community Planning (C+CP):

- Scot Hein, Urban Designer

UBC SEEDS (Social Ecological Economic Development Studies) Sustainability Program:

- George Patrick Richard Benson, Project Coordinator
- Liska Richer, Manager

UBC Department of Geography, GEOG 371 — Research Strategies in Human Geography:

- Dr. Siobhán McPhee, Instructor
- Debolina Majumder, Teaching Assistant

EXECUTIVE SUMMARY

Situated on the western extremity of the Point Grey peninsula, the University of British Columbia's Vancouver campus is a distinct community that weaves world-class academics with a population whose diversity rivals that of the country it rests upon. The Social Mapping Project is a new initiative that aims to understand the intricate relationships that exist between the materiality of campus space and the lived experiences of its users. Conducted in partnership with the Social, Ecological, and Economic Development Studies (SEEDS) program, the purpose of this research is to assist UBC Campus + Community Planning (C+CP) in assessing and understanding social vibrancy and community building on the UBC Vancouver campus.

The product of the Social Mapping Project is a comprehensive matrix that categorizes the features of individual outdoor public spaces on the UBC Vancouver campus. A combination of visual and textual descriptors provides information in a standardized manner, allowing for accurate comparisons to be made between different spaces. The data organized in the project's matrix was accumulated over a three-month period which began in September, 2015. Within this timeframe a variety of methods were employed: narrative analysis through participant observation, contextual analysis, and an online survey. The information obtained from these sources was transferred onto layers atop a map of the UBC Vancouver campus, creating a visual-spatial supplement to the matrix.

As represented in the Appendix B, the campus is segmented into six areas that frame the findings of the Social Mapping Project. An analysis of the accrued data displays trends relating to land use, revealing areas A and D to be the most frequented among survey respondents. A gradient exists in this regard, evidenced by the low usage of sections C and F which are situated on the opposite extremity of the map. The directions of these findings are studied in conjunction with the survey's results for potential uses of campus spaces. Food trucks, public art, and live music are the three dominant programming recommendations, followed respectively by a desire for more rain cover, seating, lighting, bike racks, and tables.

Several limiting factors may be revised in future iterations of the Social Mapping Project. For one, the timeframe of the project does not allow cross-seasonal observations to be made. Due to the reduced amount of sunlight and cold weather conditions at the time of this study, the data may not be reflective of the land use habits that people display in milder weather. The study may also benefit from the use of focus groups. This approach would expand upon the survey, producing detailed inputs that will strengthen its results. Focus groups may also yield a more representative sample population because we can select a proportionate number of representatives from different social groups.

The Social Mapping Project matrix will be made accessible to the public, inviting future researchers to add new spaces to the dataset. In doing so, the limitations of the study may be alleviated as information is corrected and modified in subsequent editions. This continuity will accomplish the project's goal of evaluating social vibrancy and community building on campus as UBC Vancouver evolves over time.

INTRODUCTION

The UBC campus has been described by Scot Hein, the University of British Columbia's (UBC) Urban Designer, as a living organism that is in constant motion. The university is constantly changing and developing to adapt to the needs of those who experience it, whether they be a student, faculty member, neighbourhood resident or a visitor. Alongside our community partners, the Social, Ecological, and Economic Development Studies (SEEDS) program, we assisted UBC Campus + Community Planning (C+CP) in assessing the social sustainability of UBC's campus community. Accordingly, the focus of our study is on the outdoor public spaces within UBC's Vancouver campus that have the capacity for social engagement. We conducted a study of the spaces through narrative analysis, an online survey and contextual analysis. By narratively analyzing a total of 60 individual spaces we aimed to understand their urban framework, establish the real and potential social uses of each specific space, and develop a cataloguing tool that places the various attributes of spaces into an accessible format. Through the distribution of an online survey we were able to provide context to our observations and analysis of outdoor spaces on campus. Given both the survey and narrative information, we contextually analyzed the spaces for the purposes of future campus planning. Throughout the study we sought to explore the public realm of UBC through the lens of geographical research, to address the problem that we lack a strong understanding of the outdoor public spaces on the UBC Vancouver Campus. Therefore, our study's primary objective is to answer the question of how individual outdoor spaces and places within UBC's public realm are used and defined by their physical, social, environmental, cultural, and historical attributes. Based on our findings we provide future programming recommendations to improve the social capacity of outdoor spaces on the UBC Vancouver campus.

By conducting a study of this nature, we provide the groundwork for a variety of future projects that may be implemented through SEEDS and other UBC organizations. With the information provided in this study, future projects have the potential to improve the social sustainability of UBC's campus. For example, through the observation of 60 spaces on campus we

were able to recommend tangible and sustainable changes that could improve a space's social capacity, such as displaying student artwork, outdoor concerts, food trucks, and increased lighting in certain spaces. Another example is that, through the descriptions of spaces, we have located areas on campus that have drainage issues. This information will now be used by SEEDS to help advise a future drainage project on the UBC campus. However, though not all of the information collected through our observations, survey, and contextual analysis will be used, the information will provide a base from which future UBC campus planning can stem. In addition, the cataloging tool we have created in cooperation with SEEDS provides a framework for other university campuses and city planning agencies to use for conduct similar research. Finally, because the catalogue is dynamic, it allows for diverse applications to various future projects that involve collecting large quantities of data for individual spaces within a larger context.

METHODOLOGY

The methodology for our research project was developed in conjunction with our community partners through the UBC Social, Ecological, and Economical Development Studies (SEEDS) program. The timeframe for this project was three months in the Winter Semester of 2015. The study area consists of the UBC Vancouver campus, as seen in Appendix B, with the six subsections of that space. The project's methodology consists of three primary methods. These involve both secondary and primary data collected through narrative analysis, contextual analysis, and a survey distributed to UBC students, faculty, staff and neighbourhood residents. Our primary data was obtained through both our survey and participant observation.

First, the narrative analysis was conducted through participant observation, including the use of written descriptions of the physical, social, environmental, historical and cultural aspects, aerial and oblique photographs from Google Earth, and diagrams of individual spaces on UBC's campus. Physical descriptions are comprised of aspects such as the hard environmental features (e.g. trees, vegetation), lighting, topography, slope, adjacencies, and tangible services that the space may provide. Social descriptions denote information pertaining to the audience of a space, how they utilize it, and how they are experiencing the space. Environmental aspects address the variability of sun, shade, weather, and temperature changes within the space. Finally, the historical and cultural descriptions aim to determine if there are significant historical or cultural dimensions to the space that have been neglected in previous analyses. This was done primarily by conducting research on the history of the space and its preceding functions. Narrative analysis was chosen as a method as it helped us to determine our unit of observation, primarily which spaces we planned to further observe. We chose a space on the conditions that it had features that invited social activity (ex. a bench), was an outdoor area, if it was on UBC's Vancouver campus, and if it was a 'contained' space. A space was considered contained if it was in between buildings, sidewalks, trees or other features that created a presence of a separate space within the surrounding area. In addition, narrative analysis through participant observation allowed us to understand the attributes described above

that make up a space. This was important as our next step was to provide programming recommendations to improve social activity within these spaces based on said attributes.

A primary goal that we aimed to achieve through the employment of our methodology was to cover the entire area of the UBC Vancouver campus and to provide information on the social potential of outdoor public spaces. Therefore, each researcher was designated with one of six specific areas on campus and observed 6-12 spaces within their designated area, as illustrated in Appendix B. Each researcher spent approximately 1 hour in total at each space to complete their narrative analysis of the area. We aimed to collect data during the following time increments: 8:00-12:00, 12:00-4:00, 4:00-8:00pm, and 8:00pm onwards to determine the volume of people and environment attributes, measured at each space throughout the day.

Second, the contextual analysis aims to extrapolate upon the data obtained through the narrative analysis to make pragmatic suggestions and commentary on what works to cultivate a larger and more engaged social presence within the individual spaces. This serves as an informant for improvements to the social experiences that the space provides. For example, the analysis may include researching a particular space and discovering historical and cultural significance that had not been previously recognized, thus recommending a name change for that space based on the newly acknowledged history. Through contextual analysis we sought to understand the strengths and issues a space had in creating an effective social environment. Further, this may contribute to future programming improvements within the observed spaces. Both the programming recommendations and the attributes were given a category within a spreadsheet and expanded upon within each cell. A spreadsheet (Appendix A) was used as it is a medium that allows one to understand each space within the context of the stated categories alongside photos and programming suggestions.

Finally, we administered our survey online to students and faculty through UBC-affiliated groups, including the following:

- [Geography Students' Association](#) [Facebook]
- [UBC Class of 2019 \(Official Group\)](#) [Facebook]

- [UBC Engineering](#) [Facebook]
- Our personal social networks and Facebook timelines
- [Twitter](#) (Retweeted by [@UBCGeog](#), the Department of Geography's official Twitter account)

Further, we engaged students, faculty and neighbourhood residents through the use of our personal online social networks. We used stratified sampling and obtained a total of 55 responses. Our survey included both multiple choice questions that we could measure quantitatively and qualitatively through open-ended questions. Once all of the data was collected, the qualitative data was codified in order to enable a quantitative analysis. Therefore, we could accommodate a wide range of responses while still obtaining a uniform form of measurement. In addition, we had a section of our survey where respondents could click on an interactive online map of UBC Vancouver and place a marker on the outdoor spaces they used on campus. This feature allowed us to see the exact spaces used, including the social spaces we did not take into account in our own observations for the study. Throughout the entire research project we actively reviewed and amended our methodology with the advice of our community partners. We chose an online format as we felt it opened us up to more respondents through our online social networks and it was more time efficient than if we asked people individually in person. The layout of the survey consisted of our most comprehensive questions at the beginning (i.e. what areas do respondents use and why?) and our simplest questions (i.e. what is their year level and affiliation with UBC?) at the end. This was done to reduce the chance of having people forfeit the survey part way through. This method was chosen as it provided context to our observations and a variety of different perspectives about which spaces people chose to use and how. In addition, the online survey provides a supplementary layer of context for which outdoor spaces on campus are experienced by UBC students, faculty, and neighbourhood residents. Finally, we chose the UBC campus as it was relevant to our own interests as students at UBC and to our community partners at SEEDS.

For this project we chose to use the methods of narrative analysis through participant observation, contextual analysis, and an online survey for several reasons. Firstly, it allowed us to

use and obtain a mixture of quantitative and qualitative data. The mixture of methods was important as the qualitative responses allowed us to gain in depth information from our narrative analysis and survey responses. Additionally, quantitative measurements of the spaces and responses in the survey were optimal as they allowed us to obtain comparable empirical data. However, although there were many strengths of our data, there were also limitations. Limitations of the data included the inability to determine the sequence of a respondent's answers. Therefore, we could not view a respondent as a whole, rather, we could only view their different answers as separate entities. For example we may know that 60% of respondents were art students, but we don't know that one arts student respondent is also in 3rd year and uses Martha Piper Square for its food trucks. Finally, a limitation of our qualitative data is that it is highly subjective to the researchers who observed each space and respondents who answered our survey.

LITERATURE REVIEW

The concept of urban social space is understood by many theorists as the indissoluble combination of a built environment and its living occupants, who infuse the space with life and meaning. For example, Haas and Olsson see the urban realm as a collection of “buildings, squares, streets, landscapes, and ecosystems, as well as processes, mindscapes, and people that make up and shape any environment,” (2014). What follows from this is the intimate dual relationship between the built space and the body of the individual experiencing it; the body acts on the built environment and infuses it with meaning, while the built environment also acts on the body as a reference system, dictating how it should act and think within the space (Archer 2005). This notion of dual relationship is extremely important to our field research, as we put ourselves inside a space in order to analyze it, and must therefore practice reflexivity in order to understand how the space is capable of deploying power (Archer 2005). Additionally, it is vital to note what Pugalis refers to as activity programming. Seeing as a social space is only made social through the presence of individuals, it is the job of our research team to understand what activities occur within various social spaces of UBC, and how these social activities may be ‘programmed’ (i.e. modified, eliminated, added) in order to maximize their vibrancy and use factors (Pugalis 2009). Additionally, Pugalis’ research showed that the use of plans (i.e. aerial or AutoCAD representations of space) can reduce the “life of space from something to be experienced and lived to a passive space of detachment,” (2009). Since we are using plans as part of our research, it is vital that we keep track of our own perceptions of these spaces to ensure that we do not cognitively remove bodies from them.

Synthesizing these academic theories with previous studies conducted by the University of British Columbia enables a deeper understanding of the context in which our research is taking place. The work of theorists such Haas and Foucault provide a philosophical framework that guides our observations and analysis in an empirical direction. Comparing these philosophies of “space” and “place” alongside reports such as the Vancouver Campus Plan or Public Realm Plan (UBC Planning, 2009; 2010) illustrates what research has already been done on this topic. These documents

produced by department of the University of British Columbia's Campus and Community Planning Department focus on the built form of the Point Grey Campus. Our project is set to expand upon these pre-existing categorizations by exploring the dynamics of spaces on campus and gaining an understanding of how these locations are experienced by individuals. These sources are of particular importance as they display the priorities of our SEEDS community partners while also serving to exemplify the application of Urban Design theories in the "real world". Other projects produced by the University that stand to benefit our research include The University Boulevard Land Use Plan as well as the Library Gardens Values and Revitalization document. In particular, the source on the re-imagining of the public space outside of Koerner Library is of importance to our project as it recognizes the Musqueam First Nations peoples that are often neglected from research conducted on campus. Given that our study area falls upon the ancestral land of this nation, our research must be respectful of the veiled histories that may exist across the University of British Columbia. Our project has the potential to increase awareness of the issues surrounding aboriginal rights by recognizing the stories of the Musqueam people in locations beyond just the library. Exploring philosophical theories alongside urban design projects will keep our project grounded in academia while simultaneously ensuring that our results are relevant to our SEEDS partners. Furthermore, incorporating spatial analyses that have been conducted at other academic institutions will serve to enrich our understanding of how our project fits in with past research.

It seems as though a new construction site is popping up daily on the UBC campus, and the Campus Plan Synopsis includes further ideas to be implemented in order to meet the university's prospective needs (UBC Planning, 2014). These plans are written in order to serve the estimated future growth of undergraduate enrolment and to increase sustainability and environmental awareness on campus. Other universities in British Columbia - namely the University of Victoria, Simon Fraser University, and the University of British Columbia's Okanagan campus – have plans put in place to suit their estimated growth and sustainability as well. SFU's campus plan includes rezoning areas to better suit specific needs (SFU Development Plan, 2010), whereas UVIC and UBCO

both focus more on building a more sustainable campus for the future (UVIC Campus Planning, 2015; UBCO Planning, 2015). The theme of change is exemplified in a multitude of ways on college and university campuses (Lidsky, 2002), and research shows that trends are constantly fading and new ones are gaining popularity. It's for this reason that universities have to embrace change in their plans and must be focused on the day-to-day, complete with alternatives to suit their needs (Lidsky, 2002). The focuses on sustainability as well as respect for the history of campus are growing trends in campus planning (Turner, 2015). In this vein, UBC's plan includes a focus on the "valuable open space network" (UBC Planning, 2014) and emphasizes the natural elements of the Vancouver campus' space. If UBC Vancouver continues to grow in a sustainable direction, the frequency of use of public space by patrons will likely increase and could shift towards more of a focus on outdoor learning spaces (Vredevoogd, 2014). However, according to research done by both Turner and Temple, new construction is a fading trend due to budget or funding issues by some universities (Temple, 2008; Turner, 2015). So what does this mean for the future plans of British Columbia's universities? Perhaps UBC could take note of SFU's rezoning plan instead of creating additional floor space (UBC Planning, 2014) while still maintaining focus on increased sustainability in public spaces.

At the intersection of the social, environmental, and the economic facets of geography lies the abstraction that is sustainability. As sustainability gains traction as "a pressing global issue," (Finlay & Massey, 2012) there has been a growing interest in developing university campuses with these three measures taken into account. Isolated from the materiality of the urban core, the campus model has, since its origin, aimed to foster an enclosed space that allows for the development and dissemination of knowledge. Equipped with institutions necessitated for autonomous function, the university campus is analogous to a proper city. Forsyth and Crewe (2010) bring light to the historical continuity of this objective, pointing to evidence of the campus model's existence in late 18th century Rome. Martius, an enclosed community situated in the heart of the Italian capital, is largely thought to have been the inspiration behind the urban design of higher education institutions that followed. At the turn of the 20th century, the spatiality of this design found itself at the core of the Ebenezer

Howard's 'Garden City' and the 'City Beautiful movement', emphasizing "ordered and comprehensive planned campuses" (Forsyth & Crewe, 2010) that integrated the natural environment with expansive, aesthetically pleasing built landscapes. Using urban design as a conduit for social, environmental, and economic sustainability, campuses aspired towards the "park style" (Su, 2012) which is characterized by low-density and large-scale spaces. This planning technique effectively expanded public space, a result that has not risen without criticism. Su (2012) accuses the campus model of fabricating monotonous environments, instigated by the "lack of the necessary humanity and communication atmosphere" that are conducive to forming a captivating public space. On a local level, recent efforts to centralize campus activities around the AMS Student Nest and other departmental nodes have sought to counter such structural repercussions.

Outdoor design elements influence how people use different spaces and make meaning from those places. It has been well defined that the relationship between, outdoor spaces and buildings, have a significant impact on the level of social activities taking place (Lawson & Zhang, 2009). Not surprisingly then, a common theme in urban design and planning is social behaviour (Trancik, 1986). Supporting this theme, theorists such as Robert Trancik, Clare Marcus and Carolyn Francis provide us with a basis for conducting hands on research for spatial analysis of the University campus. Specifically, Trancik's Place Theory emphasizes the historical, cultural, and social values attached to spaces around the University campus we will be observing and surveying (Trancik, 1986)). Trancik's theory is significant to our research because we will be recommending programming and opportunities to different spaces based on social, cultural and historical attributes. By applying Trancik's theory to the University, we will be introducing a much needed exploration into, not only a spatial analysis on a university campus, but also a deeper understanding of how human behaviour shapes specific campus spaces. Connecting with the theme of social behaviour, Marcus and Francis (1990) have identified twelve characteristics that are central features in successful outdoor social spaces. Their analysis is of particular importance for our research because it provides a guideline for interpreting specific public outdoor features. These design guidelines will allow us to identify and

analyze opportunities in different spaces around UBC Campus while also allowing us to make recommendations for redesign. Our research is capable of providing valuable information associated to University planning that is non-existent in current design guidelines based on a spatial analysis focusing on a theme of social behaviour.

ANALYSIS

Data Coding and Common Themes

The primary concept of our research is outdoor space. For our spatial analysis of the survey, this primary concept was further broken down into six categories that respondents identified as desirable attributes of outdoor spaces. The six categories that we found were most desirable include environment, utility, convenience, social, sound, lighting and temperature. By reducing the data into these six categories, we were able to identify that outdoor spaces which contain features in all six categories were the spaces which are most used on the University Campus. A common theme that emerged from this breakdown is that there is a strong preference for well furnished outdoor spaces located in between buildings and Lecture Halls.

The survey provided six areas on UBC campus for respondents to designate as spaces they spend most of their time (areas A, B, C, D, E, and F as indicated in Appendix B). The outdoor areas that the survey found to be most used are A and D. Our data found that location of outdoor spaces used by respondents is connected to their role within the university and the faculty they are associated with. For example, 90% of respondents identified themselves as students of which 59% are in the Arts Faculty. This is significant because areas A and D house the most desirable student amenities that respondents marked. Faculty is also an important factor because the areas that the survey found most popular (A and D) are in close proximity to Arts Faculty classrooms. Students relax, eat and study in outdoor spaces that are near their classes. The survey found that the least used areas were C and F. Both of these regions do not include the amenities that students identified as important to them in outdoor spaces, specifically, they are not located in between or within close proximity to Lecture Halls and do not contain the environmental, social, utility, sound, lighting and temperature features that they seek out in courtyard spaces.

Attractive Attributes of UBC Social Spaces

The use of social spaces on campus is based on a number of factors, the main one being utility (i.e. availability of seating, tables/desks, and electrical outlets). One of the main space uses by students being studying and working on group projects, people tend to choose their spaces based on the utility attributes rather than environmental or aesthetic aspects. For example, 7% of respondents have chosen the Irving Library Garden as the main space they regularly use for studying purposes, and they have mentioned that the availability of tables and the ample amount of seating is extremely useful to them (Appendix C, Appendix D).

Another major use factor is convenience. We have found, through the use of our survey and personal observations, that well used spaces are those which are located near food vendors/restaurants, are in 5-minute walking distance away from the bus loop, and those in close proximity to students' classes. For example, central locations such as the University Square outside the AMS Student Nest and the Money & Raymond M.C. Lee Square (area outside the UBC Bookstore) are heavily used due to their proximity to restaurants and bus stations; these spaces are also well-known meeting spaces for students.

We also found that the overall environment-related attributes (such as greenery, rain shelter, and scenery) also contributed significantly to the attractiveness as spaces, as 21% of survey respondents mentioned these attributes as their preferences (Appendix C). Essentially, the campus environment relies heavily on its aesthetic and weather-resistant characteristics and an open, green space with appealing scenery (such as the Rose Garden) appeals greatly to UBC students for the purposes of relaxation and leisure. Other categories, such as sound preferences (i.e. running water), amount of sunlight, and temperature levels also affect social space use, however the opinions are divided between respondents as to what they prefer, and further research such as extensive shadow studies must be conducted to determine how the ratio of sunlight to shade correlates with space use.

Programming

Through our personal observations of spaces across campus, we have determined that lack of easy access to food (specifically food trucks) in specific parts of the campus has played a major role in the use rates of various spaces. The response of the online survey has furthered this notion, with 24% of the respondents mentioning that they would like to see more food trucks in specific parts of the campus, such as the spaces near Engineering buildings (Appendix E). As students and faculty are often busy, it is important for them to be able to receive nutrition and relax between classes/research without having to move too far from where they reside, and thus food trucks should be available in more remote areas of the campus rather than the most central locations.

Interest in the Arts (including performing arts, public art, local art, First Nations art, live and instrumental music performances, or simply speakers) is another popular programming suggestion by survey respondents, and our research team alike, with 42% of the survey participants asking that there be more visual and auditory expressions of creativity around campus in order for the institution to become more lively and vibrant through colour and sound.

Finally, rain cover (10%), additional seating and tables (13%), and lighting (6%) were found to be significant potential areas of campus improvement. Seeing as outdoor space becomes less usable for social purposes whenever precipitation strikes the Point Grey region, either temporary or permanent covers from rain (particularly along Main Mall) are likely to drastically increase space use throughout the late fall and winter seasons. Improvements in lighting and, consequently, safety of specific spaces (such as the courtyard between Chemistry Blocks B & C) would allow for social use during a wider time range, particularly during the winter season.

SIGNIFICANCE OF RESEARCH

The results of the research conducted through this social mapping project have the potential to be significant for several different stakeholder groups. Academics, university administrators, and community planners represent some of the many individuals that would find this socio-spatial exploration to be of particular relevance.

From an empirical perspective, this project is of significance as the examination of the University of British Columbia's public realm serves as a case study that can inform the field of urban geography as a whole. Several theories on place are further validated through the completion of this project. For example, the influences that a physical space can have on the individual as described by Haas (2014) are seen through this project. The results of our project also serve as an illustration of Trancik's "place theory" (1986) as the emotive elements attached to a physical space are unveiled through this socio-spatial analysis. By incorporating these theoretical concepts of place into a real world spatial analysis, this study serves to help bridge the gap between theory and practice that exists across the social sciences.

Conducting this research project in conjunction with the planning department of the University of British Columbia ensured that the results of this spatial analysis would be significant from a practical perspective as well as academically. Through participation in the SEEDS program, the Campus and Community Planning Department was provided with a better understanding of how spaces are currently used by the people of this university. The results of this project will better enable UBC to meet its goals of creating an environmentally, economically, and socially sustainable community by exploring the social dimensions of the public realm at the Point Grey Campus. Dozens of recommendations regarding future uses of public spaces were made based analysis of qualitative and quantitative data gathered for this project. In addition, the results of our observations and survey unveiled the desires of the campus community for expanded programming across UBC's public realm. This demand for more programming including food trucks and live music illustrates the appetite for a more vibrant UBC. Through our research, the concerns about safety that are

present within the student body were unveiled through the expressed desire for increased lighting at night. The customizable matrix created for this venture will allow the university to continue to gather data on social spaces and better understand the concerns and desires of the UBC community. This can then be used to help inform the creation of a vibrant campus that embodies the social elements of sustainability.

This research project could also prove to be of significance to urban planning departments beyond the University of British Columbia. The importance of outdoor public spaces in the lives of individuals are highlighted through the results of research conducted for this social mapping venture. Furthermore, the creation of a matrix that has the ability to be customized serves as an example of one method of ensuring that any member of a community can be engaged in the planning process. In conclusion, the partnership between students and the Campus and Community Planning Department of UBC through the SEEDS program illustrates the potential for participant action research that is relevant from both a practical and empirical perspective.

FUTURE RESEARCH DIRECTIONS

Our project has the ability to grow into an important aspect of UBC's social spaces. The research we have done has the ability to expand alongside future collaborations with students, staff, and faculties. Through our research, we were able to capture 58 outdoor spaces on UBC's Vancouver campus, with many being left out due to the sheer size of the campus and time constraints. Also, we were only able to observe the usages of these spaces at three times of day during a three-month period. It is highly likely that the use and concentration of people in these spaces varies seasonally. For example, there are likely more people spending recreational time in outdoor spaces such as athletic fields, around fountains, and in other open areas during the warmer months of the regular academic year (likely April or May), rather than the beginning of the year. For this reason, it would be interesting to conduct the same observations if this course were to be taken in the spring semester. If future researchers were able to somehow observe all of the listed spaces for a longer period of time during the day, and over all four seasons, they could synthesize their results and find more precise evidence of how the average space on campus is used, and when. For completeness sake, it would be imperative for future researchers to look at more open spaces on campus, specifically the areas not included in the boundaries of our map.

Another aspect that would improve the quality of our research would be to develop deeper thought on reasons why and how spaces on campus are used by conducting focus groups and interviews with a random sampling of people. This could be done by randomly selecting people who wrote the survey, and interviewing them to further develop their points, or by approaching people who were already using the spaces. Due to UBC's campus being on unceded Musqueam territory, future research projects on the use of space on campus should incorporate the viewpoints of the local First Nations communities. This would be beneficial in order to further investigate the historical and cultural aspects of space and place on campus. This could include focus groups and interviews with members of these groups. Additionally, most of our respondents were art students (approximately

60%), as our own social networks are made up of mainly students in that faculty. It would be imperative to focus research on members of other faculties.

Once research on the Point Grey campus is exhausted, it may be beneficial and interesting to look at the use of spaces at UBC Okanagan's campus, as it could give insight on the similarities and differences between the students, staff, and visitors between the two campuses. Additionally, this research could be applied further to cities as a whole such as Vancouver in order to conduct comparisons between the usages of outdoor space by people in the general population of cities as opposed to citizens of university campuses.

REFERENCES

- ARCHER, JOHN. 2005. Social Theory of Space: Architecture and the Production of Self, Culture, and Society. *Journal of the Society of Architectural Historians* 64 (4). University of California Press: 430–33.
- CANADA. (2015). Brimingham & Wood. 'Growing UBC Okanagan'. Kelowna. University of British Columbia.
- CANADA. (2015). Brimingham & Wood. 'Library Garden Values + Revitalization'. Vancouver. University of British Columbia.
- CANADA. (2010). University of British Columbia Campus and Community Planning. 'Land Use Plan'. Vancouver. University of British Columbia.
- CANADA. (2009). University of British Columbia Campus and Community Planning. 'UBC Public Realm Plan for the Vancouver Campus'. Vancouver. University of British Columbia.
- CANADA. (2004) University of British Columbia Campus and Community Planning. 'University Boulevard Neighbourhood Plan'. Vancouver. University of British Columbia.
- CANADA. (2014). University of British Columbia Campus and Community Planning. Vancouver Campus Plan. Vancouver. University of British Columbia.
- FINLAY, J, MASSEY, J. (2012) 'Eco-campus: Applying the ecocity model to develop green university and college campuses', *International Journal of Sustainability in Higher Education*, vol. 13, pp. 79-92
- FORSYTH, A, CREWE, K. (2010), 'Suburban technopoles as places: The international campus-garden-suburb style', *Urban Design International*, vol. 15, no. 3, pp. 165-182
- FRANCIS, C., MARCUS, C. (1990). *People Places: Design Guidelines for Urban Open Space*. New York, N.Y. : Van Nostrand Reinhold.
- HAAS, TIGRAN & KRISTER, OLSSON. (2014). Space and culture: Transmutation and reinvention of public spaces through ideals of urban planning and design. *17, (1): 59*

- LIDSKY, A. J. (2002) 'A perspective on campus planning', *New Directions for Higher Education*, 119, pp. 69-77, Academic Search Complete, EBSCOhost, viewed 30 October 2015.
- PUGALIS, LEE. (2009). The culture and economics of urban public space design: Public and professional perceptions. *Urban Design International* 14 (4): 215-30.
- SIMON FRASER UNIVERSITY. (2010). Burnaby Mountain Campus Development Plan. [Online]. Available from: http://www.sfu.ca/fs/files/Campus_Planning/SFU_Site___Guidelines.pdf. [Accessed: 2nd November 2015].
- SU, P. (2012). 'Study on Urban Design Methods of Currently Campus Planning', *Applied Mechanics and Materials*, vol. 174, pp. 2457-2460
- TEMPLE, P. (2008) 'Learning spaces in higher education: an under-researched topic', *London Review of Education*, 6, 3, pp. 229-241, Academic Search Complete, EBSCOhost, viewed 1 November 2015
- TRANCIK, R. (1986). *Finding Lost Space: Theories of Urban Design*. New York : Van Nostrand Reinhold.
- TURNER, M. L. (2015) 'Campus space-shapers', *University Business*, 18, 1, pp. 44-46. Academic Search Complete, EBSCOhost, viewed 1 November 2015.
- UNIVERSITY OF BRITISH COLUMBIA. (2010) Vancouver Campus Plan. [Online] Available from: http://planning.ubc.ca/sites/planning.ubc.ca/files/documents/planning-services/policies-plans/VCPUpdate2014_Part1.pdf. [Accessed: 2nd November 2015].
- UNIVERSITY OF BRITISH COLUMBIA OKANAGAN. (2015) Okanagan Campus Plan. [Online] Available from: https://cdn.ok.ubc.ca/_ubc_clf/_clf7_assets/sites/campusplanning/assets/Final-Campus-Plan_Sept_2015_Low_Bookmarked_Desitinations.pdf#page=8. [Accessed: 2nd November 2015].

UNIVERSITY OF VICTORIA. (2015) University of Victoria Campus Plan. [Online] Available from: <http://www.uvic.ca/campusplanning/assets/docs/Campus-Plan-Update-2015/Draft.Campus.Plan.Oct.14.2015.pdf>. [Accessed: 2nd November 2015].

VREDEVOOGD, J. (2014) 'The case for space on campus', *University Business*, 17,3, pp. 24-24. Academic Search Complete, EBSCOhost, viewed 30 October 2015.

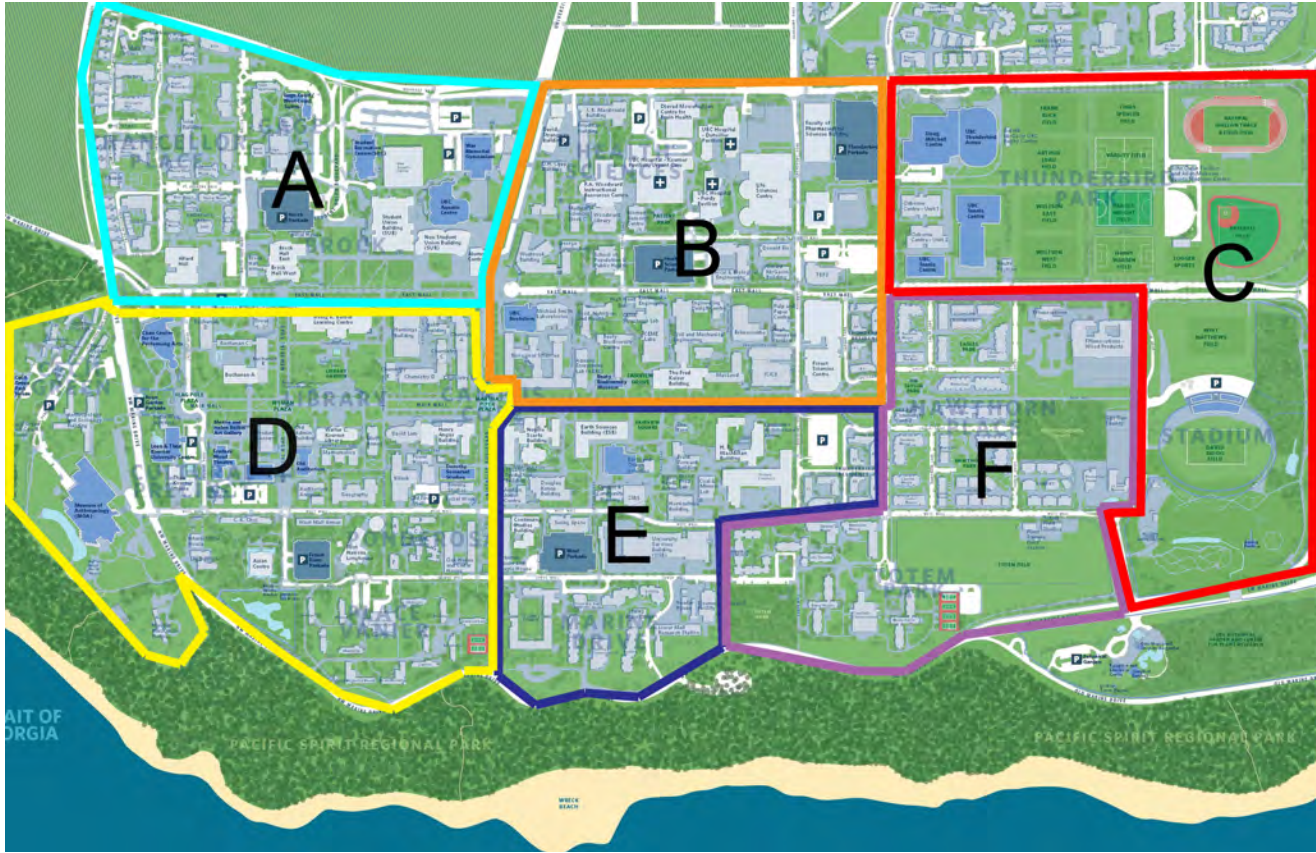
ZHANG, W. & LAWSON, G. (2009). "Meeting and greeting: Activities in public outdoor spaces outside high-density urban residential communities", *Urban Design International*, vol. 14, no. 4, pp. 207-214.

APPENDIX

Appendix A: Matrix template

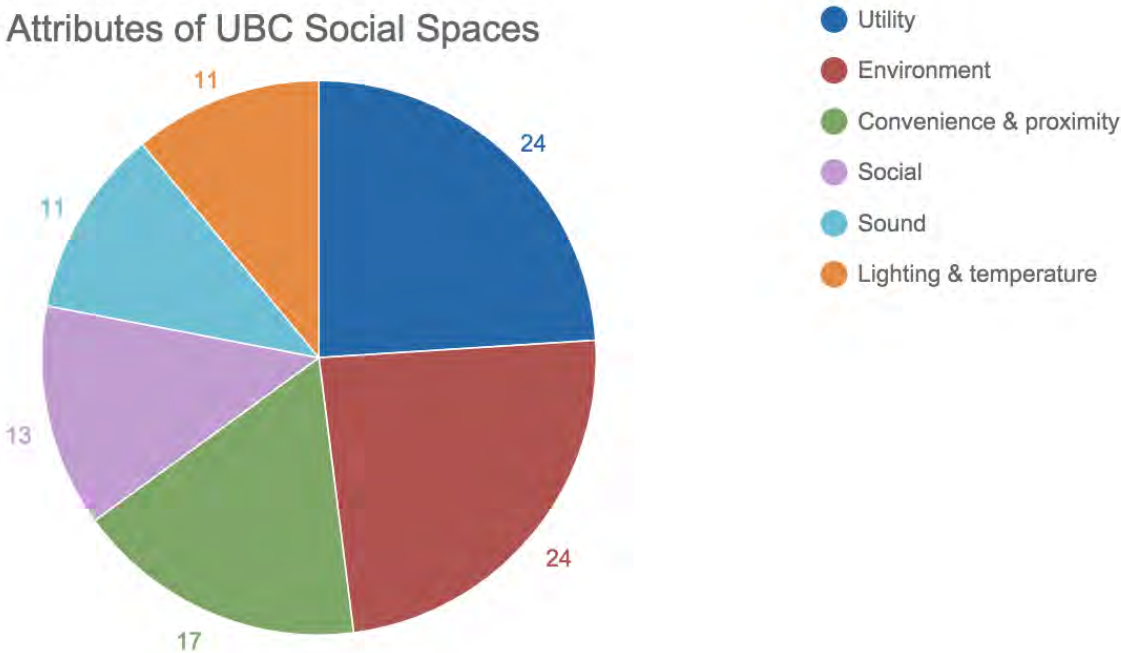
Location	Space	Aerial	Oblique	Attributes				Programming	
				Physical	Social	Environmental	Historical and Cultural	Recommendations	Diagrams
	Index								

Appendix B: UBC Campus Map demarcations (UBC Planning, 2009)



Appendix C: Pie chart describing the attractive attributes of UBC social spaces based on survey responses

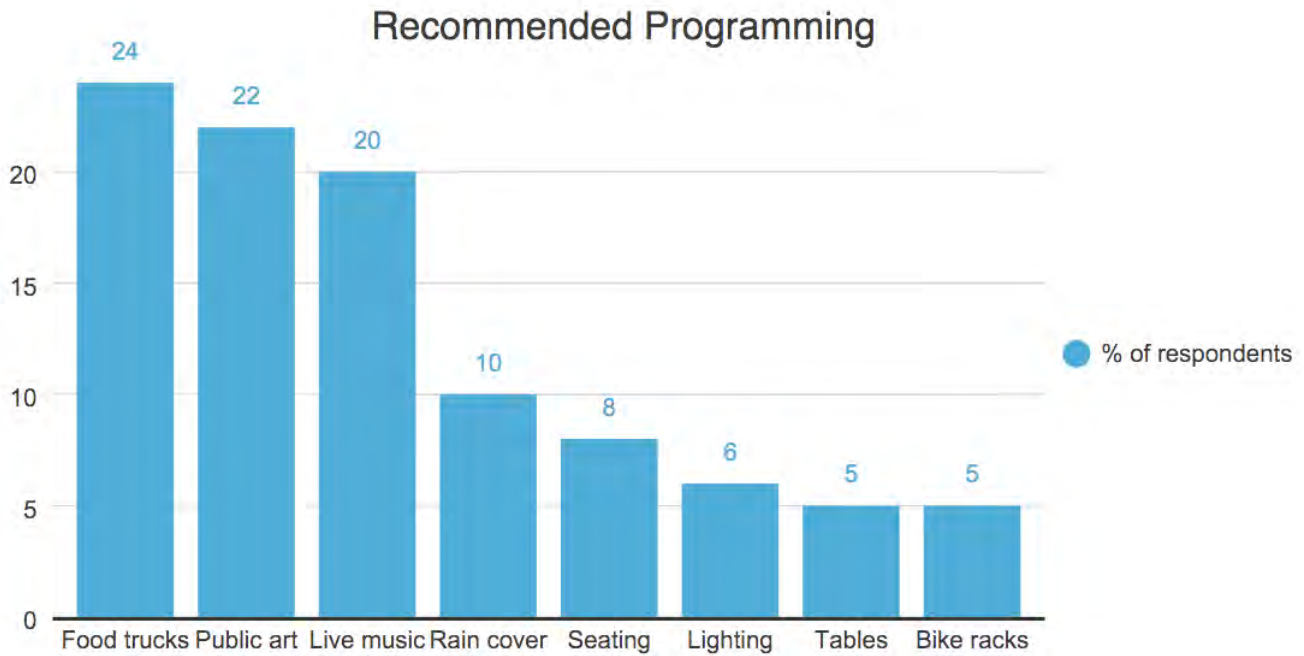
Attractive Attributes of UBC Social Spaces



Appendix D: Table explaining the categories in Appendix C

Utility	Environment	Convenience & proximity	Social	Sound	Lighting & temperature
Seating	Openness	Classes	People-watching	Quiet	Sunlight
Tables/desks	Greenery	Food	Food	Sound of running water	Shade
Power outlets	Scenery	Bus loop	Sports		
	Rain shelter				
	Cleanliness				
	Beach				

Appendix E: Bar graph describing recommended programming statistics, obtained via the online survey responses



Appendix F: Additional recommended programming

- Bake sales
- Food trucks: poutine, tacos/burritos, east Indian, Italian
- Music: live music, faculty of music performances
- Public art: B.C first nations art, interactive art, art exhibits, sculptures
- Performances: dance, talent show
- Temporary/permanent rain cover
- Bake sales
- Green spaces
- Seating & Tables
- Swings
- Sporting activities
- Movies
- Giant chessboard
- Outdoor market
- More bike racks
- Better drainage
- Improved Lighting
- Native B.C vegetation
- More flowers

Appendix G: Mapped Spaces: (in green, all 60 spaces studied within the six campus subdivisions)
LINK: <https://www.google.com/maps/d/edit?mid=zvTjKY03jYEc.kH2CItrW5fhU>



Appendix H: Demographic profile of all 55 survey respondents

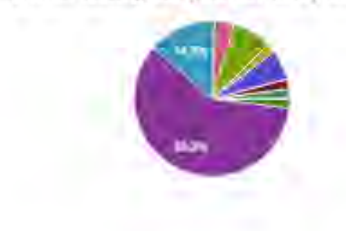
What is your affiliation with UBC?



Undergraduate student	50	90.9%
Graduate student	0	0%
Faculty member/staff	1	1.8%
Visitor	1	1.8%
Neighbourhood resident (not student or staff)	0	0%
Other	3	5.5%

Student

Which faculty are you currently enrolled in?



Continuing Studies	0	0%
College of Health Disciplines	0	0%
Faculty of Dentistry	0	0%
Faculty of Land and Food Systems	1	2%
Faculty of Arts	29	58%
Faculty of Science	7	14%
Faculty of Forestry	2	4%
Faculty of Applied Science	4	8%
Faculty of Pharmaceutical Sciences	0	0%
Faculty of Medicine	0	0%
Faculty of Education	0	0%
Graduate and Postdoctoral Studies	0	0%
Peter A. Allard School of Law	1	2%
Sauder School of Business	3	6%
School of Nursing	0	0%
School of Kinesiology	1	2%
School of Social Work	0	0%
School of Music	1	2%
School of Journalism	0	0%
School of Environmental Health	0	0%
School of Audiology and Speech Sciences	0	0%
School of Architecture and Landscape Architecture	0	0%
School of Community and Regional Planning	0	0%
School of Population and Public Health	0	0%
School of Library, Archival, and Information Studies	0	0%
UBC Vantage College	0	0%
Vancouver School of Economics	0	0%

What is your current year of study?



Year 1	13	26%
Year 2	10	20%
Year 3	10	20%
Year 4	14	28%
Year 5+	3	6%
Graduate student	0	0%










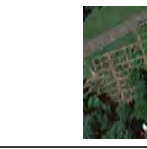
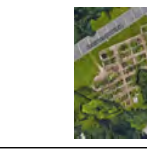


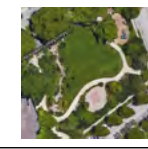




Appendix I: Social Mapping Project Matrix (1/9)

LINK: <https://docs.google.com/spreadsheets/d/127IRz2BCZBAU6zKLrCkvxeg-25q0aMT6b7O0dzq85a8/edit#gid=0&vpid=A1>










127IRz2BCZBAU6zKLrCkvxeg-25q0aMT6b7O0dzq85a8/edit#gid=0&vpid=A1

Location	Scale	Level	Context	Activities	Social	Environmental (e.g., natural quality)	Socio-Economic at the Equinox @ Equinox	Socio-Economic at the Equinox @ Equinox	Socio-Economic at the Equinox @ Equinox	Socio-Economic at the Equinox @ Equinox	Historical & Cultural Significance	Recommendations	Diagram
Madison Park (Madison Park, Madison, WI)	Large: 30m x 37m, 1322m²			Physical Madison Park is a large, open green space located in the heart of Madison, Wisconsin. It features a prominent circular structure in the center, surrounded by walking paths and greenery. The park is a popular destination for residents and visitors alike, offering a peaceful retreat from the city's hustle and bustle.	Social Madison Park is a key social hub for the community, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Environmental (e.g., natural quality) Madison Park is a significant green space in the city, contributing to the local ecosystem and providing a natural setting for recreation. The park's design incorporates natural elements, such as trees and open fields, creating a pleasant and refreshing environment for visitors.	Socio-Economic at the Equinox @ Equinox Madison Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Madison Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Madison Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Madison Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Historical & Cultural Significance Madison Park has a rich history and cultural significance, reflecting the city's commitment to green spaces and outdoor recreation. The park's design and layout are a testament to the city's long-standing tradition of providing high-quality public spaces for its residents.	Recommendations To further enhance Madison Park's value as a community asset, several recommendations are proposed. These include: 1) Improving accessibility and safety for all users, including children, the elderly, and people with disabilities. 2) Enhancing the park's amenities, such as adding more seating, shade structures, and recreational equipment. 3) Implementing sustainable landscaping practices to reduce water consumption and improve the park's environmental health. 4) Organizing community events and programs to foster a sense of ownership and pride among park users.	
Forest Park (Forest Park, Madison, WI)	Large: 30m x 37m, 1322m²			Physical Forest Park is a large, open green space located in the heart of Madison, Wisconsin. It features a prominent circular structure in the center, surrounded by walking paths and greenery. The park is a popular destination for residents and visitors alike, offering a peaceful retreat from the city's hustle and bustle.	Social Forest Park is a key social hub for the community, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Environmental (e.g., natural quality) Forest Park is a significant green space in the city, contributing to the local ecosystem and providing a natural setting for recreation. The park's design incorporates natural elements, such as trees and open fields, creating a pleasant and refreshing environment for visitors.	Socio-Economic at the Equinox @ Equinox Forest Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Forest Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Forest Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox Forest Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Historical & Cultural Significance Forest Park has a rich history and cultural significance, reflecting the city's commitment to green spaces and outdoor recreation. The park's design and layout are a testament to the city's long-standing tradition of providing high-quality public spaces for its residents.	Recommendations To further enhance Forest Park's value as a community asset, several recommendations are proposed. These include: 1) Improving accessibility and safety for all users, including children, the elderly, and people with disabilities. 2) Enhancing the park's amenities, such as adding more seating, shade structures, and recreational equipment. 3) Implementing sustainable landscaping practices to reduce water consumption and improve the park's environmental health. 4) Organizing community events and programs to foster a sense of ownership and pride among park users.	
University Park (University Park, Madison, WI)	Large: 30m x 37m, 1322m²			Physical University Park is a large, open green space located in the heart of Madison, Wisconsin. It features a prominent circular structure in the center, surrounded by walking paths and greenery. The park is a popular destination for residents and visitors alike, offering a peaceful retreat from the city's hustle and bustle.	Social University Park is a key social hub for the community, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Environmental (e.g., natural quality) University Park is a significant green space in the city, contributing to the local ecosystem and providing a natural setting for recreation. The park's design incorporates natural elements, such as trees and open fields, creating a pleasant and refreshing environment for visitors.	Socio-Economic at the Equinox @ Equinox University Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox University Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox University Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox University Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Historical & Cultural Significance University Park has a rich history and cultural significance, reflecting the city's commitment to green spaces and outdoor recreation. The park's design and layout are a testament to the city's long-standing tradition of providing high-quality public spaces for its residents.	Recommendations To further enhance University Park's value as a community asset, several recommendations are proposed. These include: 1) Improving accessibility and safety for all users, including children, the elderly, and people with disabilities. 2) Enhancing the park's amenities, such as adding more seating, shade structures, and recreational equipment. 3) Implementing sustainable landscaping practices to reduce water consumption and improve the park's environmental health. 4) Organizing community events and programs to foster a sense of ownership and pride among park users.	
City Park (City Park, Madison, WI)	Large: 30m x 37m, 1322m²			Physical City Park is a large, open green space located in the heart of Madison, Wisconsin. It features a prominent circular structure in the center, surrounded by walking paths and greenery. The park is a popular destination for residents and visitors alike, offering a peaceful retreat from the city's hustle and bustle.	Social City Park is a key social hub for the community, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Environmental (e.g., natural quality) City Park is a significant green space in the city, contributing to the local ecosystem and providing a natural setting for recreation. The park's design incorporates natural elements, such as trees and open fields, creating a pleasant and refreshing environment for visitors.	Socio-Economic at the Equinox @ Equinox City Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox City Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox City Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Socio-Economic at the Equinox @ Equinox City Park is a key socio-economic asset for the city, providing a space for recreation, relaxation, and social interaction. It is often used for group activities, family outings, and community events. The park's central location and accessible design make it a central point of gathering for people of all ages.	Historical & Cultural Significance City Park has a rich history and cultural significance, reflecting the city's commitment to green spaces and outdoor recreation. The park's design and layout are a testament to the city's long-standing tradition of providing high-quality public spaces for its residents.	Recommendations To further enhance City Park's value as a community asset, several recommendations are proposed. These include: 1) Improving accessibility and safety for all users, including children, the elderly, and people with disabilities. 2) Enhancing the park's amenities, such as adding more seating, shade structures, and recreational equipment. 3) Implementing sustainable landscaping practices to reduce water consumption and improve the park's environmental health. 4) Organizing community events and programs to foster a sense of ownership and pride among park users.	








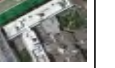










Appendix I: Completed matrix (6/9)

<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	
<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	
<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	
<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	
<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	
<p>1.200' x 427' x 61' x 2150'</p>			<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	<p>The lawn condition is used for soccer, basketball and other sports. The lawn is used for recreation and is a key feature of the area.</p>	<p>Concepts in the Walkway</p>	

Appendix I: Completed matrix (7/9)

<p>Medium: River Park, B 11983sqm Medium: 38.35m x 313.5m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Many families using the space Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 
<p>Medium: River Park, B 14033sqm Medium: 20.30m x 693.8m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Primary users are for walking Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 
<p>Medium: River Park, B 14033sqm Medium: 20.30m x 693.8m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Primary users are for walking Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 
<p>Medium: River Park, B 14033sqm Medium: 20.30m x 693.8m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Primary users are for walking Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 
<p>Medium: River Park, B 14033sqm Medium: 20.30m x 693.8m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Primary users are for walking Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 
<p>Medium: River Park, B 14033sqm Medium: 20.30m x 693.8m</p> 		<p>Long Corridor Walkway, Street Cinder Trees, Grass</p> 	<p>Primary users are for walking Children of all ages Active space, some primary and by market</p>	<p>Space consists of children's play area, grass, and some trees The space is used for walking and jogging. The space is well-maintained and has many trees.</p>							<p>Residential area was completed in 2007</p>	<p>High Corridor Walkway, Street Cinder Trees, Grass</p> 

Appendix I: Completed matrix (8/9)

<p>Faculty Unit of the Faculty of Business</p>	<p>Medium 60m x 30m, 1800m²</p>		<p>Provides a walking area, green courtyard, and a small area for outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A small green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Medium 60m x 23m, 820m²</p>		<p>Outdoor courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A small green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 26m, 4200m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 27m x 26m, 1200m²</p>		<p>Courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A small green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 60m, 5100m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 26m, 4200m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 26m, 4200m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 26m, 4200m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	
<p>Faculty of Business</p>	<p>Large 59m x 26m, 4200m²</p>		<p>Large courtyard with a central green area and surrounding walkways.</p>	<p>Primarily used for walking and outdoor activities. The courtyard is a mix of grass, trees, and walkways.</p>	<p>A large green courtyard area with trees and walkways.</p>				<p>Outdoor Courtyard with a mix of grass, trees, and walkways.</p>	

Appendix J: Programming Map

LINK: <https://www.google.com/maps/d/edit?mid=zvTjKY03jYEc.k7czxADojF90>

