

TRAIL SIX

The background of the cover is a scenic landscape photograph. In the foreground, a vibrant green coniferous tree stands prominently, its branches reaching upwards. To the right of the tree, two black ravens are perched on a gnarled, dead tree trunk. The middle ground features a vast, calm blue lake or fjord, with distant, forested mountains visible on the horizon under a clear sky. The overall composition is a blend of nature's elements, from the sharp details of the trees and birds to the expansive, hazy landscape.

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UNIVERSITY OF BRITISH COLUMBIA GEOGRAPHY STUDENTS' ASSOCIATION

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Letter from the Editor

Emma Kansiz
Editor-in-Chief

Geography as a field is at once transcendent, liminal and bounded. It creates divisions, borders and partitions and then tears them down. It compels us to draw maps and chart territory but also to challenge the ambitions and motives that drive us to label space. The desire to leave no rock unturned in our quest for truth about our world and our relation to it inevitably leads us down paths with questions we can't currently answer. It is this nebulous and elusive nature that makes geography so captivating to some and so mysterious to others. It is the multiple intersections and spaces (both mental and physical) that the field embodies that we explore in this edition of Trail Six.

Furthermore, being a UBC publication we are inevitably influenced and driven by the land politics, spatiality and natural features of Vancouver. This influence is evident in many of our articles, which explore such pertinent topics as the links between offshore investment and the regions high property prices and an inquiry into the 'world city' designation. Because of the nature of the field, however, we never limit ourselves to what we see and experience in our everyday surroundings. Keeping true to this nature we have also selected papers that cover factory economics in Cambodia, worker radicalization in Argentina and real estate identity politics in Hong Kong.

A big thank you to the UBC Geography department, the Geography Students Association, in particular Matthew Chung who has been consistently and passionately involved with the creation of this year's Trail Six, Lexine Mackenzie for designing this issue and being an authority on layout and to all this year's editors and authors.

Foreword

Dr. Marwan A . Hassan
Professor and Head
Department of Geography, UBC

I always considered it a great honour, as Department Head, to provide a Foreword for the annual issue of Trail Six. Everyone who volunteers their time to producing this document is giving a great gift to the Geography community. The coordinators, designers, peer reviewers, mentors, and editors often are unaware of what a large commitment they make in taking on this initiative but, because of their hard work, we all benefit.

From urban hunger to air quality, from worker cooperatives to social mapping, the eleven articles contained in this issue of Trail Six represents the great diversity of topics engaged by our undergraduate students. They touch upon several important topics facing us and are timely as climate change, housing, urbanisation, technological change and more have us re-examining the way in which we interact with our environment.

I congratulate each author and the editorial team for a job well done. After nine years of Trail Six publications, I can say that in every issue you engage new topics and make our community a little bigger.

A Space of Mind

Mapping Spatial Usage at the University of British Columbia

Jessica Antkiw, Claire Bunton, Marisa Gullaci, Hyunsoo Kanyamuna, Nicola Salvino, & Anastassiya Smirnova

The University of British Columbia's Vancouver campus is a community that weaves world-class academics with a population whose diversity rivals that of the country it rests upon. The Social Mapping Project is an initiative that aims to understand the relationships between the materiality of campus space and the lived experiences of its users. Conducted in partnership with the Social, Ecological, and Economic Development Studies program, the purpose of this research is to assist UBC Campus + Community Planning in assessing and understanding social vibrancy and community building on the Vancouver campus. The product of the Social Mapping Project is a comprehensive matrix that categorizes the features of individual outdoor public spaces on campus. A combination of visual and textual descriptors provides information in a standardized manner, allowing for accurate comparisons to be made between spaces. The Social Mapping Project matrix and accompanying maps are accessible to the public, inviting researchers to add new spaces to the dataset. This continuity will accomplish the project's goal of evaluating social vibrancy and community building as the UBC Vancouver campus evolves over time.

Introduction

The University of British Columbia (UBC) campus is constantly changing and developing to adapt to those who experience it. Alongside our community partner, the Social, Ecological, and Economic Development Studies (SEEDS) program, we assisted 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 our study through narrative analysis, an online survey, and contextual analysis. The aim was to understand the campus' 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 contextualize our observations and analysis of outdoor spaces on campus. 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 to improve the social sustainability of UBC's campus. In addition, because this cataloguing tool 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 SEEDS program. The project's methodology consists of three primary methods. These involve both secondary and primary data collected through narrative analysis (participant observation), contextual analysis, and a survey distributed to UBC students, faculty, staff and neighbourhood residents.

First, the narrative analysis was conducted through participant observation, including the use of written descriptions

of the physical, social, environmental, historical and cultural aspects, and aerial and oblique photographs from Google Earth of individual spaces on UBC's campus. Physical descriptions are comprised of aspects such as the hard environmental features (e.g. 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. Narrative analysis was chosen as a method because it helped us determine our unit of observation, especially

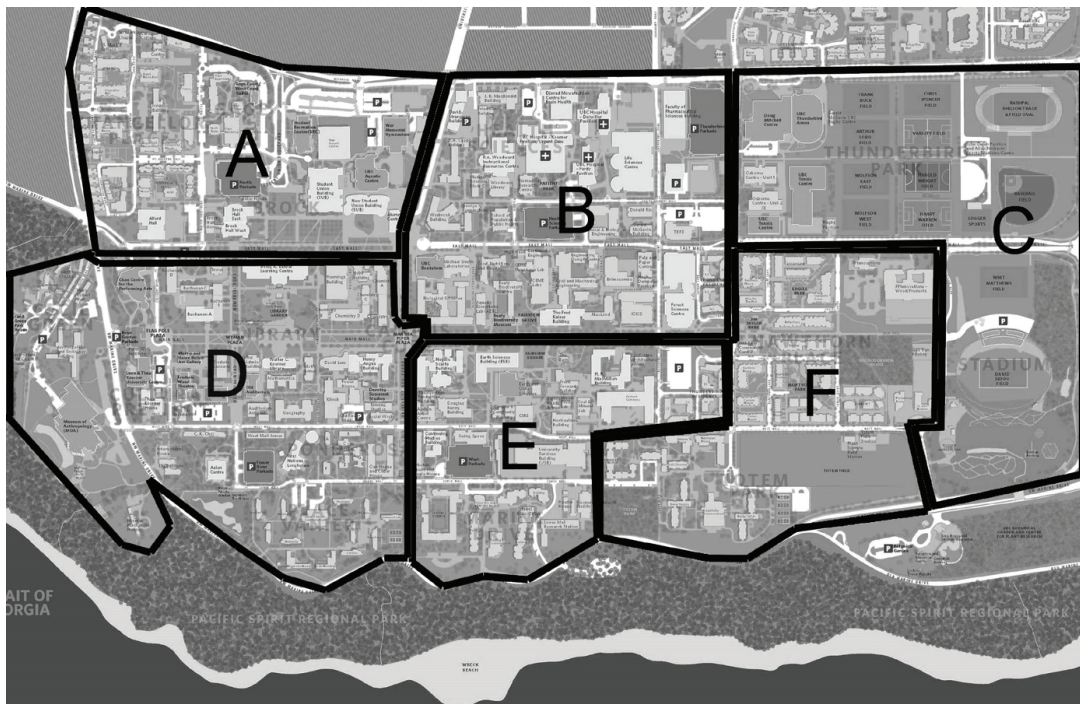


Figure 1: UBC Campus Map demarcations (UBC Planning, 2009)

Location	Space	Aerial	Oblique	Attributes				Programming	
	Index			Physical	Social	Environmental	Historical and Cultural	Recommendations	Diagrams
A									
B									
C									
D									
E									
F									

Figure 2: Matrix template

which spaces we planned to observe. We chose a space on the conditions that it invited social activity, was an outdoor area, was located on UBC's Vancouver campus, and was a 'contained' space. A space is contained if it is between features that create a separate space (ex. buildings) within the surrounding area.

This project aimed to cover the entire area of the UBC Vancouver campus. Therefore, each researcher was designated one of six areas on campus and observed 6-12 spaces within their assigned area, as illustrated in Figure 1. We aimed to collect data during the following time increments: 8:00am-12:00pm, 12:00pm-4:00pm, 4:00pm-8:00pm, and 8:00pm onwards to determine the volume of people and environmental attributes throughout the day.

Second, the contextual analysis aims to extrapolate upon the data obtained through the narrative analysis to make suggestions and comments on what works to successfully cultivate a larger, more engaged social presence within the spaces. This serves as an informant for future programming improvements to the social experience that the

space provides. Both the programming recommendations and the attributes were recorded on a spreadsheet (Figure 2) and expanded upon within each cell. This medium 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 respondents through UBC-affiliated groups, including the following:

- Geography Students' Association [Facebook]
- UBC Class of 2019 (Official Group) [Facebook]
- UBC Engineering [Facebook]
- Personal social networks and Facebook timelines
- Twitter

We used stratified sampling and obtained a total of 55 responses. Our survey included both multiple-choice questions that we could measure quantitatively and qualitative open-ended questions. Once all of the data was collected, the qualitative data was codified in order to enable a quantitative analysis. 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. We chose an online format as 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.

Limitations of the survey data include the fact that our respondent set was marginally representative consisting of 91% students and 58% of those were in the Arts Faculty. A limitation of our observational and survey data is its subjectivity based on the researcher who observed each space and to the respondents who answered our survey.

Theoretical Perspectives

The concept of urban social space is understood by many theorists as a combination of the built environment and its living occupants. 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 is an intimate relationship between the built space and the bodily experiencing; 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). 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).

The work of theorists such as Haas and Foucault provide a philosophical framework that guides our observations and analysis in an empirical direction. Comparing philosophies of “space” and “place” alongside reports such as the Vancouver Campus Plan or Public Realm Plan (UBC Planning, 2009; 2010) displays the priorities of our SEEDS community partners while exemplifying the application of urban design theory in the “real world”. In particular, studies on the re-imagining of the public space outside of Koerner Library are important to our project as they emphasize the Musqueam First Nations peoples. Given that our study area falls on their ancestral land, our research must be respectful of the veiled histories that may exist across UBC.

Outdoor design elements influence how people use and make meaning from different spaces, as the relationship between outdoor spaces and buildings have a significant impact on social activity (Lawson & Zhang, 2009). Robert 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 of how spatial analysis and a deeper understanding of human behaviour shapes specific campus spaces. Connecting with the theme of social behaviour, Claire Marcus and Carolyn Francis (1990) have identified twelve characteristics that are central features in successful outdoor social spaces. These design guidelines will allow us to identify opportunities in spaces around campus and to make recommendations for redesign.

Analysis

Our spatial analysis survey identified six categories of outdoor space that respondents identified as desirable. The six categories include environment, utility, convenience, social, sound, lighting and temperature. By categorizing the data into this way, we were able to identify that outdoor spaces which contain features in all six categories are the most used outdoor spaces on UBC's 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.

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 Figure 1). The outdoor areas that the survey found to be most used are A and D. Our data found that people commonly used spaces closest to their undergrad faculty buildings. For

example, 91% of respondents identified themselves as students of which 59% are in the Arts Faculty (Figure 3). In addition, this can also be seen as respondents marked areas A and D as having the most desirable student amenities. 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 may look for.

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 (e.g. availability of seating, electrical outlets). 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 useful to them (Figure 4, Figure 5).

Another major use factor is convenience. Our research finds that popular spaces are those which are located near food locations, 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 is heavily used due to its proximity to restaurants and bus stations.

We also found that the overall

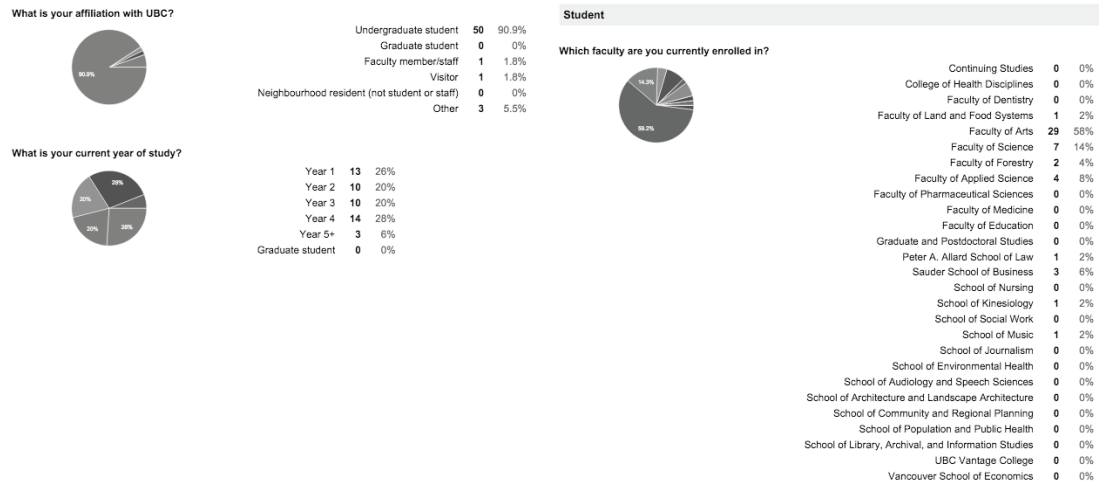


Figure 3: Demographic Profile of Respondants

environment-related attributes (e.g. rain shelter, scenery) contributed significantly to the attractiveness as spaces, as 21% of survey respondents mentioned these attributes as their preferences (Figure 4). The campus environment relies heavily on its aesthetic and weather-resistant characteristics. Other categories, such as sound preferences (i.e. running water), amount of sunlight, and temperature levels also affect social space use.

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 more areas of campus (Figure 6). Interest in the Arts (including performing arts, public art, First Nations art, live music performances) is another popular programming suggestion with 42% of the survey participants asking that there be

more visual and auditory expressions of creativity around campus.

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 it rains, either temporary or permanent covers from rain (particularly along Main Mall) are likely to increase space use throughout the late fall and winter seasons. Improvements in lighting and, consequently, safety of specific spaces would allow for increased social use during a wider time range, particularly during the winter season.

Future Use of Research

The results of the Social Mapping Project are significant for stakeholders including academics, university administrators, and community planners. Empirically, 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

Attractive Attributes of UBC Social Spaces

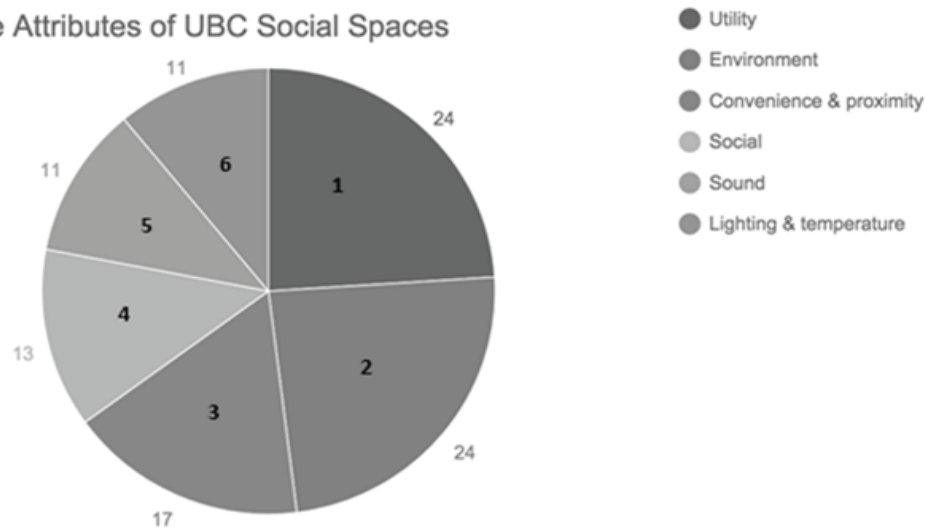


Figure 4: pie chart of attractive attributes of choice

1. Utility	2. Environment	3. Convenience and Proximity	4. Social	5. Sound	6. Lighting and 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				

Figure 5: Table of summary

Recommended Programming

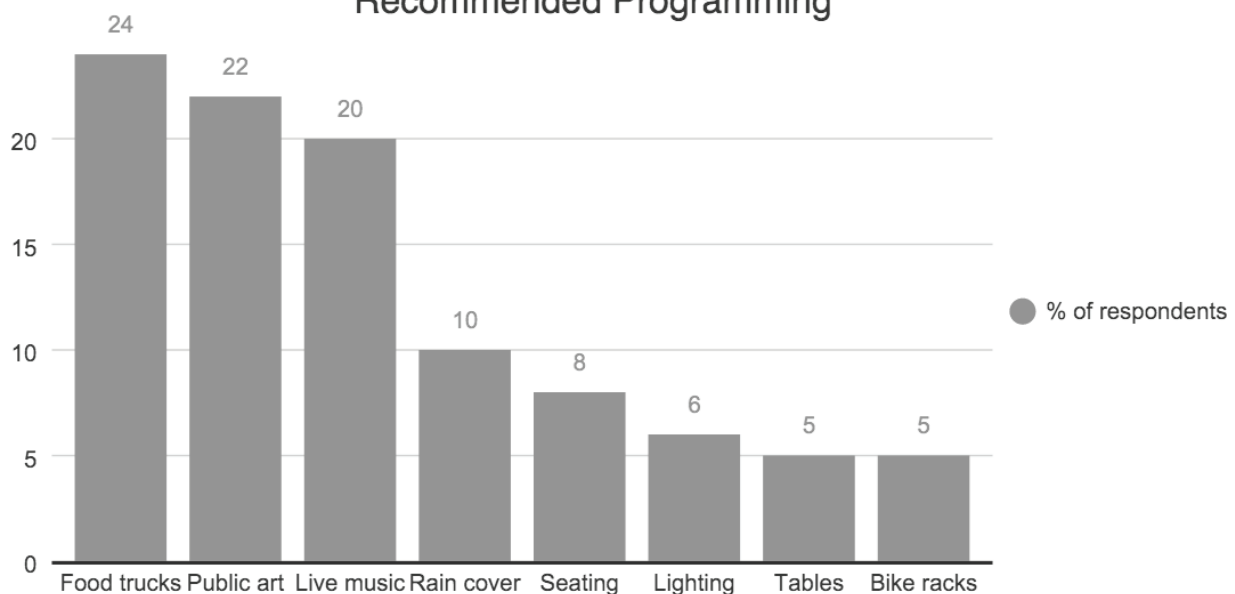


Figure 6: Recommendation

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.

Because we partnered with SEEDS and C+CP, we were able to provide them with a better understanding of how spaces are currently used by the people at UBC. 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 campus' public realm. 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 may also prove to be of significance to urban planning departments beyond UBC's own. The importance of outdoor public spaces in the lives of individuals is 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 C+CP through the SEEDS program illustrates the potential for participant action research that is relevant from a practical and empirical perspective.

Through our research, we were able to capture 58 outdoor spaces on UBC's Vancouver campus, with many being excluded due to resource and time limitations. We were only able to observe these spaces at three times of day during a three-month period. This leaves a gap in data as, there are likely more people spending time in outdoor spaces during the spring and summer months of the year rather than in the fall and winter. For this reason, it would be advantageous to replicate this project in the spring and summer terms. Future researchers could synthesize their results to produce more precise data on how and when campus space is used. For completeness, it would be imperative that future researchers look at more open spaces on

campus, specifically the areas excluded by the boundaries of our map.

Another aspect that would improve the quality of our research would be to examine 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 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 First Nations communities. This would be beneficial for investigating the historical and cultural aspects of space and place on campus. Additionally, most of our respondents were Arts students (approximately 60%). It would be crucial to focus our research on members of other faculties.

Once research on the Vancouver campus is exhausted, it may be beneficial to study the use of spaces on UBC's Okanagan campus, as this may provide insight on the similarities and differences between the students, staff, and visitors between the two sites. Additionally, this research may be applied to cities such as Vancouver in order to understand how public space is used on a larger scale.

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PM_{2.5} Exposure within the University of British Columbia Vancouver Campus

Connor Smith

Air pollution leads to negative health impacts, specifically particulate matter that is 2.5 microns or less in diameter (PM_{2.5}). This field study collected PM_{2.5} data within different microenvironments, which represent the daily walking routine of students or staff members within The University of British Columbia Vancouver Campus (UBC). This is important because there has not been any mobile measured data collected within UBC regarding this matter. The designated study route consisted of five main categorized regions and included ten areas of interest in total. PM_{2.5} concentrations were collected using a Dylos 1700 Optical Particulate Matter Sensor and GPS equipment. The results illustrated that the most polluted area of the campus is the bus loop and the cleanest area is Irving K. Barber Learning Centre. The highest peak PM_{2.5} concentrations found within campus are a result of idling vehicles (buses, cars, and trucks), smoking, and campus landscaping equipment (leaf blowers, gas-powered lawn mowers). Slightly elevated PM_{2.5} concentrations were found adjacent to the numerous construction sites located within campus. Fortunately, PM_{2.5} concentrations within the UBC campus are lower than the Canadian governmental baseline standard concentration of PM_{2.5} that is averaged over 24-hours. This field study has provided a focus for additional studies to be conducted within UBC in the future, specifically short-term human exposure to PM_{2.5} concentrations as a result of idling diesel buses within the bus loop.

Introduction

This field study investigates PM_{2.5} concentrations within the University of British Columbia's (UBC) Vancouver campus. UBC, which has a student-and-staff population of 60,000, strives to be a green and sustainable campus while growing substantially. The campus is situated 20 kilometers from downtown Vancouver (49°N, 123°W), a mid-latitude city. UBC's proximity to the ocean and high-elevation terrain plays a significant role in influencing meteorology in this area. Summers are primarily dry and winters are wet and windy. The dry summers fuel forest fires that often cause poor air quality for this region. During the winter, large low-pressure systems converge on this area, bringing heavy rain and wind.

Particulate matter varies in size and some of its sources include the burning of coal, vehicular emissions, dust, and sea spray (McKendry et al., 2004). In built-up urban environments, transportation emissions are the leading cause of the particulate matter (McKendry et al., 2004). PM_{2.5} refers specifically to particulate matter that is 2.5 microns or less in diameter, which are invisible to the naked eye. Factors besides source emissions that influence PM_{2.5} concentrations include meteorology, and chemical reactions in the atmosphere (Hess et al., 2010).

It is an important pollutant to study because it can cause negative health effects in humans. PM_{2.5} is so small that it can be inhaled deep into the alveolar

area of the lungs and possibly transferred into the bloodstream (Marshall, 2013). $PM_{2.5}$ may cause inflammatory reactions, plaque formation, and negatively affect the heartbeat (Marshall, 2013). According to Boldo et al. (2011), prolonged exposure to $PM_{2.5}$ is a factor in increased death rates. Exposure to such particles may be indirectly related to other diseases, including cancer (Hess et al., 2010). Other side effects include breathing problems and asthma, which stresses the healthcare system.

During this field study data were collected using a mobile sampling method encompassing different micro-environments. Fixed-site monitoring inaccurately represents exposure to pollutants at a detailed level compared to personal monitoring (Watson et al., 1997). There is value in studying human exposure to pollutants as humans travel through different microenvironments on a daily basis. (Oke et al., n.d.). By applying mobile sampling techniques, a true representation of what an individual may be unknowingly inhaling on a daily basis was studied.

To my knowledge, this field study is the first of its kind to be conducted at a Canadian university. It has provided staff, students, and UBC campus planners with valuable pollution data that can be used to highlight concentrations of $PM_{2.5}$ within the campus. With these data, UBC campus planners can find solutions to improve air quality in the future. Also, it allows the comparison of $PM_{2.5}$ concentrations within the UBC campus to the Canadian government baseline standard concentration of $PM_{2.5}$

averaged over a 24-hour period. The primary objectives for this field study are as follows:

- To determine if the human population is at risk of exposure to high $PM_{2.5}$ concentrations at different locations within the campus.
- To determine the most polluted and least polluted areas within the campus and to map this data for visual referencing.
- To determine if added construction is influencing $PM_{2.5}$ concentrations within campus.
- To compare $PM_{2.5}$ concentrations found on campus to a government baseline standard 24-hour average concentration of $PM_{2.5}$.

Methods

Study Area and Participants

During this study observations were made at popular campus walking routes. The route was designed to incorporate different areas of campus that may influence $PM_{2.5}$ concentrations and was correlated with heavy amounts of human traffic to determine human exposure to $PM_{2.5}$ particles. Figure 1 displays the study area (left) and designated study route (right). The solid black line in the image on the right is the designated walking route where $PM_{2.5}$ data were collected. This route began and ended near Ponderosa Maple House. Within the proposed route are five main categorized regions and ten areas of interest. These five categorized regions and ten areas of interest were studied in greater detail during data analysis. The subjects of this field study were the roughly 60,000 UBC

students and staff that live and work on campus.

The five categorized regions include:

- Construction Influenced Areas (ovals)
- The Bus Loop (rectangle)
- Building Interiors (triangles)
- Walkways (diamonds)
- Other (everything not highlighted)

The ten areas of interest include:

- The Ponderosa Commons Construction Site (oval)
- Walkway Beside Walter C. Koerner Library (diamond)
- Inside Irving K. Barber Learning Centre (triangle)
- Inside Old Student Union Building (triangle)
- Aquatic Center Construction Site (oval)
- Bus Loop (rectangle)

- Construction Site Beside War Memorial Gymnasium (oval)
- Inside New Student Union Building (triangle)
- Walkway Beside Cascading Fountain (diamond)
- Other (everything not designated)

Instrumentation

This study used three main instruments for data collection:

1. A Dylos 1700 Optical Particulate Matter Sensor (Figure 2). This device functions by using a fan to collect air in through its intake and out through its outtake. Pollution from the air are recorded as large ($>2.5 \mu\text{m}$) and small ($0.5\text{-}2.5 \mu\text{m}$) (Steinle et al., 2015). The Dylos produces measurements every six seconds and provides data sets in the form of a text files and they include minute averages of large and small particle

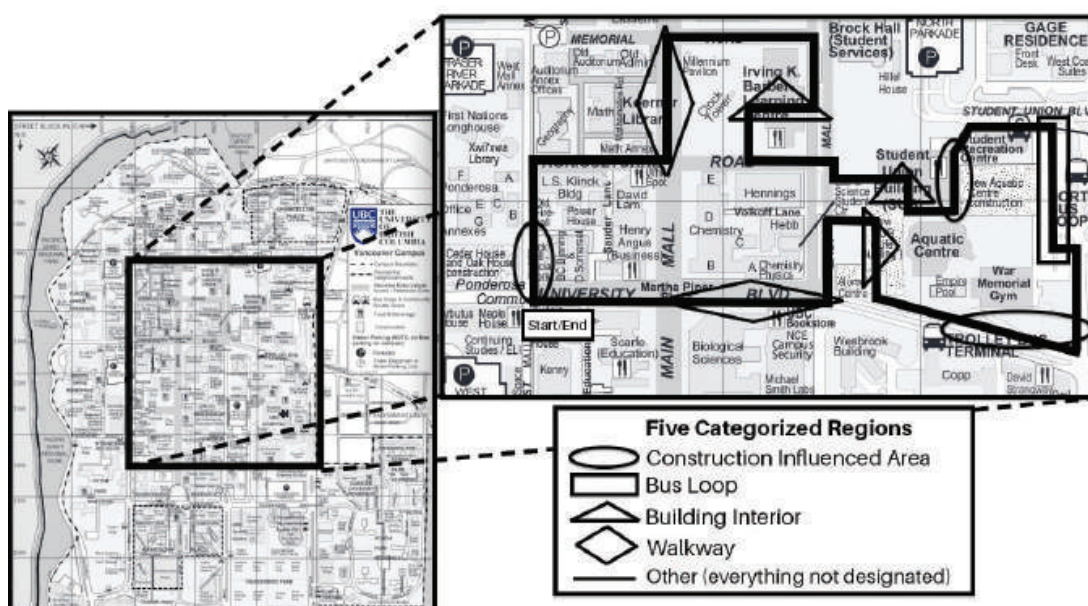


Figure 1: A zoomed-out map of the study area (left) and detailed map of the designated study route (right) (The University of British Columbia, n.d.).



Figure 2: Instruments and orientation during data collection (1. Dylos 1700 Optical Particulate Matter Sensor, 2. Motion X GPS iPhone App and iPhone Voice Recorder)

counts in particles per cubic foot.

2. Motion X GPS iPhone App (Figure 2). This device requires the use of satellites to determine location coordinates. It functions best outdoors away from interference (trees or buildings). It provides a GPX file of roughly five to eight data points per second.

3. iPhone Voice Recorder (Figure 2). This device works by recording spoken words and storing them to review for later analysis.

During data collection, the three instruments were oriented to obtain accurate data, as seen in Figure 2. A piece of cardboard was taped to the top of the Dylos 1700 because accuracy is affected by direct sunlight. The Dylos 1700 was held sideways while walking and careful attention was devoted to ensure both air vents were not blocked. The iPhone that includes the GPS, and voice recorder were simultaneously run and held in the other hand.

Data Sampling and Analysis

This field study collected data over a two-week period. During this fortnight, eight data sets were collected from November 18th-20th, 24th-27th, and on the 30th. Data collection occurred between 10am and 12pm (except November 26th 6pm to 8pm) over a 5.2 km distance that took approximately 1.5 hours to walk forwards and backwards. 41.6 km was walked and 12 hours were spent sampling in total.

Data was collected during the same time period for each sampling date and under similar meteorological conditions (wind speeds light to moderate, sunny or overcast conditions, and temperatures in a range of $\pm 5^\circ$ Celsius) to ensure accuracy. The UBC Totem Field Weather Station supplied the meteorological data.

Steps were then taken to convert the raw collected pollution and GPS data, manually match them, and then categorize them into specific areas along

the designated study route. A study by Steinle et al. (2015) provided the following formulas to convert particles per cubic foot measured by the Dylos 1700 to micrograms per cubic meter ($\mu\text{g}/\text{m}^3$):

$$\text{“Indoor PM}_{2.5} = 0.65 + 4.16 \times 10^{-5} \times [\text{PNC}] + 1.57 \times 10^{-11} \times [\text{PNC}]^2\text{”}$$

$$\text{“Outdoor Urban PM}_{2.5} = 4.75 + 2.8 \times 10^{-5} \times [\text{PNC}]\text{”}$$

The above formulas used for this field study are based on European calibrations of the Dylos 1700 Optical Particulate Matter Sensor; thus, the instrument was not calibrated locally.

Results and Discussion

Data Analysis

The data collected during this field study has revealed important evidence and satisfied the objectives outlined above. In total, sampling occurred on eight different days and Figure 3 summarizes the observations. When compar-

ing different sampling dates, it should be noted that one of the sampling dates was conducted at night (November 26th). Of the remaining dates, average wind speed, direction and temperature varied between dates and this was likely a source of variability in the $\text{PM}_{2.5}$ concentrations observed. Five sampling dates (November 18th, 20th, 24th, 25th and 27th) in Figure 3, do have very similar average $\text{PM}_{2.5}$ concentrations and meteorological conditions and were combined into one large data set as a result of these findings. The other three sampling dates (November 19th, 26th, and 30th) were not used in my analysis due to the variability of meteorological conditions, which influenced the average $\text{PM}_{2.5}$ concentrations during those dates.

Some of the sampling intervals had different walking speeds as well as starting and finishing times. This made it

Date/Time	Number Of Samples (n)	Average PM _{2.5} ($\mu\text{g}/\text{m}^3$)	Standard Deviation Of PM _{2.5} ($\mu\text{g}/\text{m}^3$)	Average Wind Speed (m/s)	Wind Direction	Average Temperature ($^{\circ}\text{C}$)
11-18-2015 (Day) 10:09-11:39AM	91	6.32	2.45	0.97	10:00am= E 10:30am= E 11:00am= E 11:30am= ESE	6.44
11-19-2015 (Day) 10:09-11:35AM	87	5.14	1.53	3.04	10:00am= NNW 10:30am= NNW 11:00am= NNW 11:30am= NW	5.93
11-20-2015 (Day) 10:09-11:34AM	86	6.08	3.76	0.85	10:00am= NE 10:30am= SSE 11:00am= SSE 11:30am= SE	6.17
11-24-2015 (Day) 10:10-11:34AM	85	5.83	2.37	0.53	10:00am= E 10:30am= SE 11:00am= S 11:30am= SW	8.48
11-25-2015 (Day) 10:11-11:33AM	82	6.06	5.08	1.42	10:00am= NNW 10:30am= NNW 11:00am= NNW 11:30am= NW	5.12
11-26-2015 (Night) 6:38-7:53PM	76	7.05	2.52	0.23	6:30pm= NNE 7:00pm= NNE 7:30pm= ENE	2.42
11-27-2015 (Day) 10:09-11:30AM	82	6.28	2.73	0.72	10:00am= WSW 10:30am= NW 11:00am= WSW 11:30am= SW	5.95
11-30-2015 (Day) 10:09-11:30AM	82	14.10	5.56	1.13	10:00am= E 10:30am= SSE 11:00am= ESE 11:30am= NNE	3.77

Figure 3: Eight sampling dates displaying date, time, $\text{PM}_{2.5}$ averages, data variability and meteorological conditions.

difficult to combine the sampling dates temporally. Therefore, most of the data were categorized by area. As mentioned above, the designated route was walked both forwards and backwards to confirm that the $PM_{2.5}$ concentrations were occurring spatially and not temporally (a standard practice in spatial sampling). This methodology provided an accurate representation of the $PM_{2.5}$ concentrations during the sampling time periods. The variability during each sampling date is seen in Figure 4. It can be concluded that for seven of the sampling dates, the $PM_{2.5}$ concentrations are low. The highest $PM_{2.5}$ concentrations are found on November 30th. To assess the accuracy of the data, the box plot includes averaged $PM_{2.5}$ data collected from Vancouver International Airport (YVR) on the same dates and times of this field study (Government of British Columbia, 2015). Comparing the trend

of the variability of data collected at UBC to the variability of data collected at the nearby airport (23 km away) over the eight sampling dates, both locations follow a largely similar trend. This consistency in trends suggests that $PM_{2.5}$ variability is similar regionally, validating both the instrument used (Dylos 1700) and the study design.

$PM_{2.5}$ Concentrations and Human Exposure

Figure 5 illustrates that the most polluted area of the campus is the bus loop and the least polluted is the Irving K. Barber Learning Centre. For the most part, the $PM_{2.5}$ concentration levels on campus are low in most areas where there are large populations of staff and students. The bus loop is the biggest concern because public transit is the most popular form of commuting to campus (Transit, n.d.). Many commuters

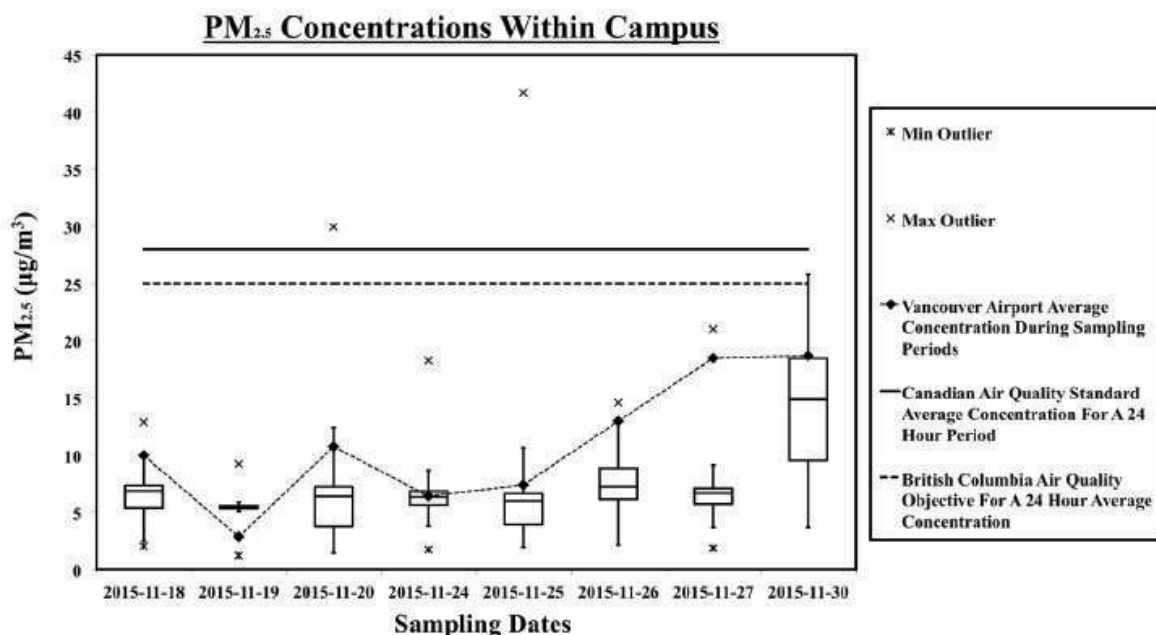


Figure 4: A box plot that compares data collected on November 18th, 19th, 20th, 24th, 25th, 26th, 27th, and 30th and displays $PM_{2.5}$ concentrations collected at YVR for validation (B.C. Air Quality, n.d.), (Canadian Council of Ministers of the Environment, 2012) (Government of British Columbia, 2015).

are exposed to short-term elevated $PM_{2.5}$ concentrations found at the bus loop due to emissions from diesel buses. According to Fan et al. (2009; 2008), “cardiopulmonary mortality and morbidity” may be a result of prolonged exposure to emissions from vehicles. Meanwhile, Greaves et al. (2008) found that human sources such as smoking and traffic-related emissions from trucks and buses caused higher short-term $PM_{2.5}$ concentrations.

Five similar sampling dates were combined to form one major visualized data set that best represents air pollution within the UBC campus shown in Figure 6. This map illustrates that most of the designated study route has low $PM_{2.5}$ concentrations levels except the bus loop. Building interiors on campus have the lowest $PM_{2.5}$ concentrations. The map also includes a few outliers that are caused by smoking, idling vehicles

on campus, and campus landscaping equipment (leaf blowers, gas-powered lawn mowers). Figure 7 summarizes the most polluted to least polluted areas on campus and they are as follows:

- The bus loop
- Construction Influenced Areas (Ponderosa Commons Construction Site, new Aquatic Centre Construction Site, and the Construction Site near War Memorial Gymnasium)
- Walkways (beside the Cascading fountain, and beside Walter C. Koerner Library)
- Building interiors (Irving K. Barber Learning Centre, new Student Union Building and old Student Union Building.)

$PM_{2.5}$ Concentrations and Construction Sites

UBC’s growth has caused increased

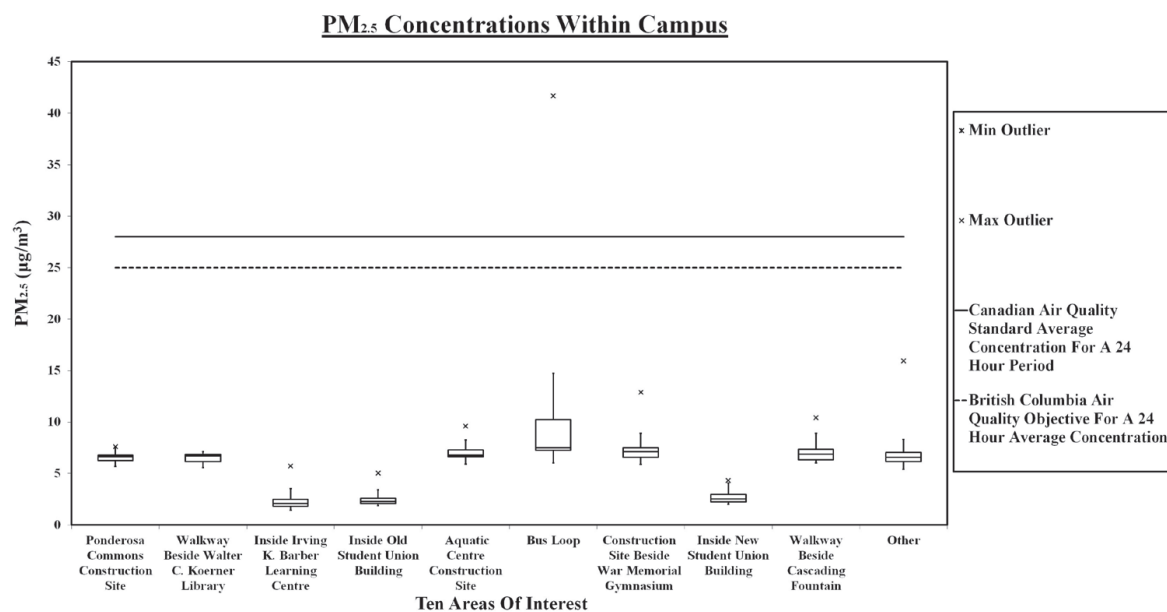


Figure 5: A box plot combining data collected on November 18th, 20th, 24th, 25th, and 27th that displays $PM_{2.5}$ concentrations of ten areas of interest. (B.C. Air Quality, n.d.) (Canadian Council of Ministers of the Environment, 2012).

PM_{2.5} Concentrations within the University of British Columbia Campus

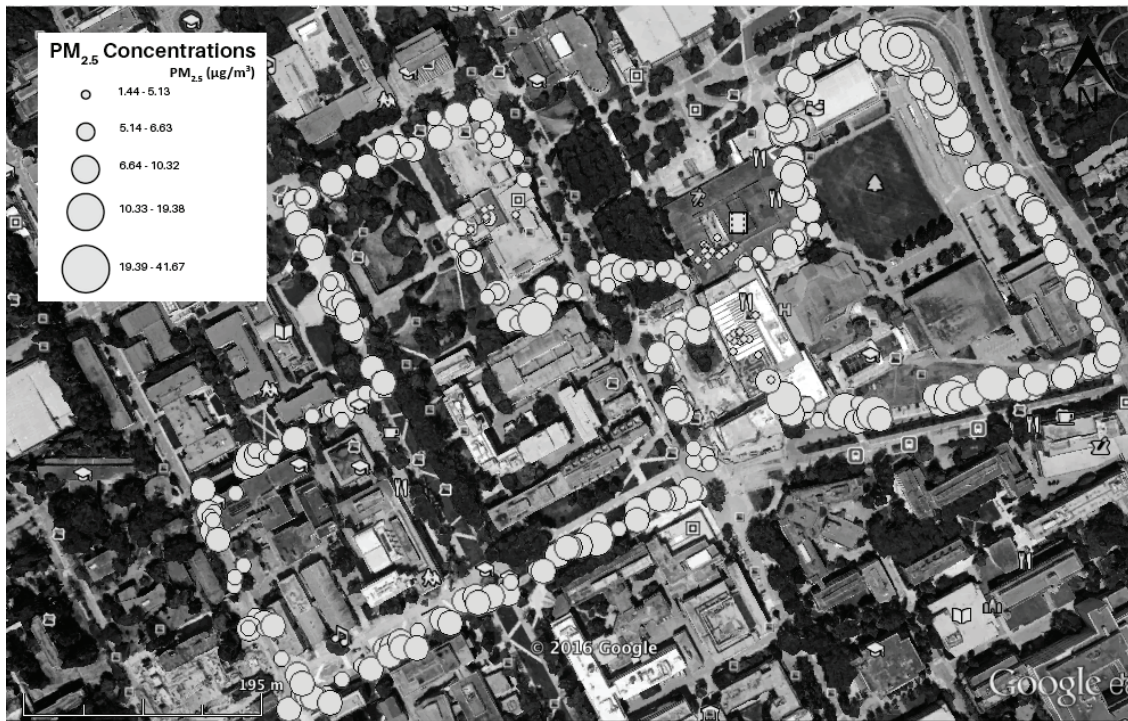


Figure 6: A map of PM_{2.5} concentrations collected on November 18th, 20th, 24th, 25th, and 27th (ArcGIS, n.d.), (Google Earth, n.d.).

PM_{2.5} Concentrations Within Campus

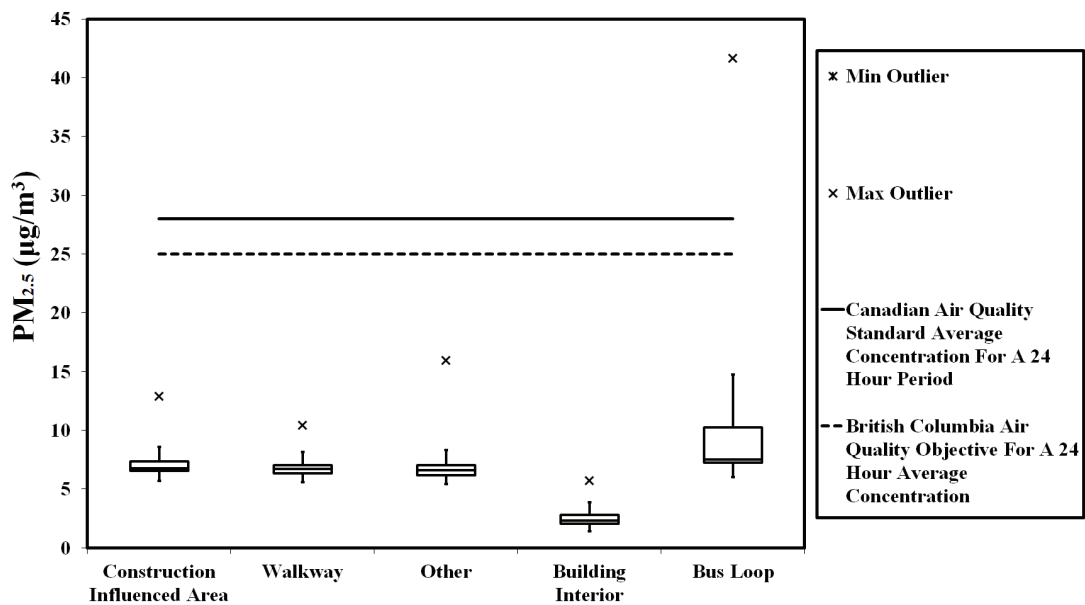


Figure 7: A box plot combining data collected on November 18th, 20th, 24th, 25th, and 27th that displays PM_{2.5} concentrations categorized into five main regions. (B.C. Air Quality, n.d.), (Canadian Council of Ministers of the Environment, 2012)

construction and there are a number of active construction sites on campus. Referring to Figure 1, the designated study route is adjacent to three of these construction sites. It can be seen in Figure 7 that construction sites are the second leading cause of slightly elevated $PM_{2.5}$ concentrations within campus because of construction equipment, idling vehicles, and dust. Compared to other studies, Azarmi et al. (2015) found that higher $PM_{2.5}$ concentrations were discovered around construction sites. It can be concluded that the added construction sites slightly elevate the $PM_{2.5}$ concentrations within campus, but are not high enough to be a major concern to human health.

Canadian Governmental $PM_{2.5}$ Baseline Regulations

The Canadian air quality standard 24-hour average $PM_{2.5}$ concentration is $28 \mu g/m^3$ (Canadian Council of Ministers of the Environment, 2012) and the British Columbia air quality objective for a 24-hour average $PM_{2.5}$ concentration is $25 \mu g/m^3$ (B.C. Air Quality, n.d.). The rolling averages collected during this study are averaged over 1.5 hours, making it difficult to compare the data collected to governmental averages. Looking at Figures 4, 5 and 7 the $PM_{2.5}$ concentrations within the study area are clearly under these governmental regulated averages including the bus loop, which had the highest $PM_{2.5}$ concentrations within campus. It was found that the bus loop had many outliers that approach the governmental averages. It can be concluded that for the most part UBC falls under the governmental $PM_{2.5}$

standard baseline concentration levels and if data were collected and averaged over a 24-hour period the bus loop and other areas of the campus would have even lower concentrations of $PM_{2.5}$. The main concern found during this study is human exposure to short-term elevated $PM_{2.5}$ concentrations.

Sources of Error

The sampling route involved going in and out of buildings and the GPS signal was lost once inside of a building. Once outside again, there was a time lag before the signal was re-established.

Calibrating the Dylos 1700 to the actual time was extremely difficult and may have been off by 10-20 seconds. Due to this time calibration issue, the exact location of $PM_{2.5}$ concentrations is hard to pinpoint precisely.

GPS and air pollution data had to be manually matched temporally. Errors are possible due to the sheer volume of data.

The travelling speed during the sampling period was 100 meters per minute. The Dylos 1700 produces measurements every six seconds and averages those measurements every minute. The data may not be a completely accurate value for a specific area along the designated route. For example, it is possible that when walking from a construction site into the bus loop, the $PM_{2.5}$ concentrations from the construction site may be averaged with the $PM_{2.5}$ concentrations found at the beginning part of the bus loop.

Data collected during this study was sampled over a two-week period. In

order to get a definitive representation of the PM_{2.5} concentrations within campus, sampling would be needed for many months in order to include different seasonal patterns that may influence the data.

Conclusions

This field study has provided UBC with valuable and accurate PM_{2.5} data collected within the campus. The results found the most polluted area of the campus to be the bus loop and the least polluted to be the Irving K. Barber Learning Centre. Peak PM_{2.5} concentrations found within campus are a result of idling vehicles (buses, cars, and trucks), smoking, and campus landscaping equipment (leaf blowers, gas-powered lawn mowers). Construction sites slightly increase PM_{2.5} concentrations because of stirred-up dust, idling vehicles, and construction equipment, but this is not a major concern. It is concerning that many staff and students may be subject to elevated short-term exposures of PM_{2.5} concentrations at the bus loop because of idling buses, particularly older buses. Overall, the campus has relatively low PM_{2.5} concentrations when compared to the governmental baseline standard 24-hour average PM_{2.5} concentration, with some exceptions.

Despite the generally good air quality at UBC, further research is needed to study idling buses within the bus loop and their effect on human exposure to elevated short-term PM_{2.5}. A study by Richmond-Bryant et al. (2009) found that diesel vehicles contribute to increased PM_{2.5} concentrations at the ground level.

Commuters are potentially breathing in large amounts of PM_{2.5} particles emitted from buses at the bus loop, especially older buses. A study done by Hess et al. (2010) suggests that increases in small particle concentrations are due to exhaust from vehicles, specifically diesel engine exhaust.

More data is needed in order to develop a more detailed understanding of PM_{2.5} concentrations within campus, specifically seasonal and meteorological effects on PM_{2.5} concentrations. Reliable PM_{2.5} data is now available for staff, students, and campus planners to view and this field study has given researchers a new direction for further investigations into PM_{2.5} concentrations emitted from idling buses at the bus loop. Lastly, it has laid the foundation for a cleaner and healthier campus.

Acknowledgments

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The Invisibility of Urban Hunger

A Critique of Urban Planning and Policy

Annie Martin

In this article I argue that the current system for integrating foodscapes into urban development is broken. Urban hunger is an issue that often remains invisible and neglected with the emphasis put on housing and homelessness in Vancouver. As Elaine Brown states, "It does not occur to us that we have a right to eat." In the world-class city of Vancouver there are communities experiencing high levels of food insecurity; where residents do not have physical or economic access to sufficient, safe and nutritious food. I will examine three critical points: barriers to food, food as a commodity and a right to food in the city. I intend to show how the solution to urban hunger is to better integrate food access with housing development policy in order to better represent the citizens that are in need.

Introduction

Urban hunger affects every major city in the world. Hunger unlike most urban poverty issues, such as street homelessness and crime is often ignored in policy programs because urban hunger lacks visibility within the city. The popular images of hunger are of starving children portrayed in T.V. commercials, who need "less than a dollar a day" to alleviate their suffering. Common perception is that hunger is largely an issue in foreign global communities rather than familiar local neighbourhoods. The current focus and language on 'hunger' as a problem leans towards issues of global hunger and 'feed the world' campaigns. I argue that to counteract the damaging affects of localized hunger, an urban planning policy should adopt a local not-in-my-backyard attitude toward urbanized hunger, acting to eliminate hunger where we live.

I will highlight how urban hunger is produced in Vancouver by examining the positions of government pro-

grams related to urban food policy and planning. Although Vancouver is often associated with urban poverty problems, such as high densities of street homelessness and individuals suffering with mental health issues in the urban core, my focus is on the City of Vancouver's struggle with food accessibility, availability and agency. Hunger is a non-negotiable aspect of the health of the city. I will address how poverty and hunger problematically reside in the shadows of urban societies, with reliance wrongly placed on charity rather than policy.

Barriers to Food: Availability, Accessibility and Agency

In an urban setting it is difficult to imagine anyone going without food for more than a few hours, yet in Vancouver and across North America this is often the case. Two significant events occurred in 2007 that exacerbated the problem of food access: the world's urban population eclipsed the majority threshold, and the price of food staple

commodities skyrocketed leading to a global food cost crisis with damaging effects on the urban poor.

The increased cost of food staples has greater impacts on urban communities because they rely exclusively on market evaluations of commodities for access to food, in contrast to rural populations that often self-produce necessities such as crops, livestock and even energy (Wurwang, 2014, p.77). The hunger of the urban poor intensifies as cities continue to increase in density around the world. As Jessica Wurwang shows, “food security and poverty are correlated globally” (2014). This inevitability of food insecurity and its effects should be pushing cities across the globe to address this uniquely urban challenge.

Although urban centers have high occurrences of restaurants, cafés and establishments that offer a range of food selection choices, they are not economically accessible to all residents. For instance, the Downtown Eastside in Vancouver (DTES) is considered to be a food desert. A food desert is a low-income neighbourhood that lacks grocery stores or other affordable retail food outlets. So while the volume of food may be high in a particular area it is not equally available to all individuals living in that area.

The DTES is a food desert landscape because there are twenty-two convenience stores and only one grocery store (Potluck Café Society, 2010). The sole grocery store is located in a building composed of a mixture of market housing with 25-30% of units dedicated to social housing (BC Housing, 2010, para.7). This location would have

been an optimal place to put a low-cost food retailer, however, the choice was made to put in a high-end grocery store more appealing to the increasingly gentrified neighbourhood. An alternative to this type of profit driven result is to have a food policy built in to current development schemes that reflect the needs of the community more accurately. Development in urban communities should be required to address not only social housing concerns but food accessibility as well. Food access requirements must be community specific and determined in advance by the city after extensive analysis of food accessibility in the area.

The creation of a food accessibility program would be based on two terms used by McCann and Miewald, *foodscape* and *foodway* (McCann & Miewald, 2014). Analysis of the *foodscape* creates better understanding of the food environment in the area and the so-called “spatiality of food systems”, informing the government of holes in the market that need to be filled (McCann & Miewald, 2014, p.540). The *foodway* establishes the accessibility issues that residents face physically and socially, as well as what their reasons are for wanting one type of food retailer over another. Although McCann and Miewald (2014) criticize the use of the term *foodscape*, focused variables like income demographics, location of retailers in relation to transportation, and simple demand are critical to this type of urban food planning initiative.

Although a large factor in the fight against urban hunger is accessibility to food retailers; another pressing mat-

ter is simply accessibility to any food at all. There are many charitable programs across North America designed to provide food free of charge to those who are in the most immediate need. However, the term food insecurity is generally defined, as “the inability to obtain sufficient, nutritious, personally acceptable food through normal food channels or the uncertainty that one will be able to do so.” (McCann & Miewald, 2014, p.543). Simply put, the charitable organizations used by those who cannot obtain their own food in their own way are not the solution. For food to be completely accessible it must not be contingent on any other factors.

For example, Organizations like Food Not Bombs provide as unrestricted an option as possible, serving vegetarian meals in open parks or public areas without the contingent element of eligibility (Heynen & Mitchell, 2009, p.613). In the Vancouver Community Led Food Action Plan headed by the Potluck Café Society, a not-for-profit organization in downtown Vancouver, there is a map and associated charts that show where, when and who can access a hot meal or some kind of food (2010). However, these organizations tend to have some sort of requirements that one must meet in order to receive services. The restrictions some charitable programs implement degrade the freedom of accessibility assumed to be present within organizations designed to help those in need.

Even if the barriers of availability and accessibility are overcome there is a systemic lack of agency when it

comes to solving urban hunger issues. In Heynen and Mitchell’s work, the geography of survival is determined by choices that people make in order to sustain life in urban settings (2009, p.613). The person trying to secure food from an organization is inescapably dependent on others regarding where they eat, when they eat, what they eat, and whom they eat with. Agency is the final barrier because the current system limits what most of us take for granted. The current ad hoc system of donation-based organizations operating independently from each other with their own specific agendas and limitations cannot hope to comprehensively address the breadth of urban food insecurity. A comprehensive food policy with organizations working in synergy is needed to eliminate the “geography of alienation” currently in place (Heynen & Mitchell, 2009, p.617).

The Commodity Value of Shelter Over Food

In Vancouver, a premium is often put on shelter. By placing sole value on the commodity of shelter it necessitates a lack of value on food. This lack of value on food translates to a lack of value on life. As Heynen points out, the production of this devalued space serves to define those who reside within it and they are usually defined in a negative context (Heynen, 2008, p.33). An example of the food/shelter disconnect is apparent in the Housing and Homelessness Action Plan produced by the City of Vancouver, where the word food only occurs three times in the entire document. The document that produces the most information

about food resources is curiously located under the homeless and low-income resources page on the City's website, which is odd considering there is no food strategy within their housing action plan.

Often the justification for funding and policy reform begins with the ability to actually see the issue almost everyday. Housing and homelessness in urban areas is a highly visible issue where urban hunger is not. The invisibility of urban hunger and low-income food security must become an essential part of housing policy so it can no longer be overlooked. The "right-to-the-city" movements promote a radical revolution to current housing policy where no one is priced out of their community (Heynen & Mitchell, 2009, p.613).

Prioritizing housing over food security is based on the idea that by providing secure, stable shelter many barriers are lifted for the urban poor. Shelter provides a sense of place and pride, encourages people to find work, and a space where one can maintain a healthy lifestyle that includes making one's own meals. The idea that if shelter is provided everything else will fall into place does have some legitimate qualities but does not address all aspects of food security. Social housing in Vancouver is not free of charge and often takes up the majority of any income that people make. In a Social Impact Assessment of the DTES done in 2014, food accessibility and food security were two of the top concerns of residents (City of Vancouver Community Services, 2014). "Inadequate housing exacerbates food inse-

curity" because people are spending the majority of their incomes on housing (2014). Here lies the fundamental problem, which is that individuals have to place a higher value on one necessity of survival over another.

The solution is to integrate housing and food policies. In Vancouver, the responsibility of feeding the hungry has been left to NGOs and other charitable organizations. Even in policy we see that Vancouver Coastal Health does the monitoring of low-cost or free food, where all other forms of well-being and food access are monitored by the City of Vancouver. Currently, housing and food cannot be reconciled in policy because they are handled by two separate entities. In Belo Horizonte in Brazil, a city of over 2 million people, food security has become "a right of citizenship, guaranteed by law" (Ladner, 2011, p.213). This city's 'Zero Hunger Strategy' is proof that even in the worst conditions, eliminating urban hunger is a top concern. The city sees "food security as a public good, and that the government is accountable to people who cannot afford to buy food in the market" (2011). This kind of government responsibility is crucial to finding a solution to urban hunger.

Another example of a city where urban food security and hunger is seen as a genuine problem is Toronto, Ontario. Vancouver and Toronto have similar Food Policy Councils. Both have produced a citywide Food Strategy, are made up of volunteer stakeholders, and are connected to their respective boards of health. However, Toronto's Food Policy Council (TFPC) has urban

planning in their authority (Blay-Palmer, 2009, p.405). By meaningfully connecting urban planning and hunger there is more potential for effective change. The TFPC uses food as a lens to analyze urban planning proposals and presents real solutions instead of solely identifying problems (2009). By giving responsibility to the TFPC it shows how food and housing policy should work together to try and solve the problem of urban hunger and homelessness in tandem. As Hammelman and Conroy so aptly point out, "planners' critical engagement with urban food policy [and vice versa] can help to facilitate action as well as mediate differences within evolving trends like community food security and food justice" (2015, p.37).

The Right to Eat in the City

One does not have the same liberties with food as with other necessities. If you do not have a roof over your head, you will brave the elements.¹ If you do not have the means to get new shoes, you will end up with wet feet. If you do not eat, you will die. Hunger is non-negotiable. In his article on the radical geographies of hunger, Nik Heynen quotes Elaine Brown, she states:

'Because, we are so used to the capitalist construct, it doesn't occur to us that we have a human right to eat; because if you don't eat you will die, it's not complicated. So, if there is a price tag to eating, then there is a price on your head, because the minute you don't have enough money to eat, you're slated

¹ I acknowledge that in some locations the elements are potentially deadly.

for death. The question is, do I as a human being in this society, or in this life, have a right to eat.' (quoted in Heynen, 2008, p.40).

The right to food does not resonate with people in the same way that the right to other necessities do, like water and shelter. Like Brown says it should not be a complicated issue. But, within Canadian legal rights, it is fairly complicated. The current debate is whether or not food is a right, and whether that right is subject to court law. In the Canadian Charter of Rights and Freedoms the right to life is clearly outlined (Buckingham et al., 2007, p.568). It is hard to understand how someone can have the right to life, but not the right to food. There cannot be life without nutrition - one necessitates the other. The obligation then, of the Canadian government, is not providing these necessities to life, but to merely not to deprive people of these rights (Buckingham et al., 2007, p.568). If you break down the right to food in this way, looking at it as a fundamental right to life, what Buckingham et al. refer to as "a breakdown in the public safety net" is fairly obvious (2007, p.568). By taking away the ability to survive in the city for those who cannot afford to do so can be "potentially genocidal" especially, say Heynen and Mitchel, when anti-homeless laws are introduced (2009, p.614). Not only do they destroy the spaces in which homeless people live, they also remove any chance to attempt to subsist within the urban context. An example of an urban area that has made a concerted effort to create a right to food in the city is King County (Seattle) in Washing-

ton State. Part of their food system plan is that food be treated with the same importance as water and air (Morgan, 2009, p.344).

One of the largest contributing factors that led to the demise of sustainable food policies in most urban contexts is the popularization of neoliberal ideals that force the downloading of responsibilities to local governments or flanking mechanisms such as NGOs. In their article on Urban Food Justice, Agyeman and McEntee discuss the challenges of the food system today: "The modern food system is comprised of a series of connections that begin with production and end with consumption" (2014, p.212). With the food system relying on a scheme of continual consumption it leaves those who aren't able to consume through traditional capitalist methods out of the equation.

The breakdown of the social safety net is also seen through the dismantling of reliable, realistic welfare systems in the 1980's. In the new system, Allan Parsons explains the insignificance of the waged labourer who "is compelled, under penalty of hunger and death by starvation, to obey and accept terms laid down to him by his employer" (Heynen, 2008, p.36). In a waged labour exchange this definitely holds true, however, if we replace the role of the employer with that of the government it more accurately reflects the system in which we are currently living. Not only will the State disregard the necessities for life by rolling back social welfare programs but it also, in some cases, prevents other people from meeting the needs it refuses

to address on its own (Shannon, 2011, p.54). The only way the neoliberal model works is when it involves the competing markets of a traditional capitalist economy. Since there is no profit in giving away food without an exchange of money or goods, the market for that much needed resource does not reproduce positive circuits of capital and subsequently is not desirable for independent firms to enter into because there is no positive capitalist outcome. Therefore, the deregulation of the right-to-food in our current capitalist economic system has always been bound to create urban hunger and needs to be re-appropriated by governments in order to create an even, regulated system that is accessible to everyone.

Conclusion

"Hunger amid plenty remains one of the inexcusable conundrums of our time." Peter Ladner, Urban Food Revolution

I agree with McCann and Miewald's sentiment that, "food is a basic human need that is imbued with social meaning. It is a marker of class, signifier of health, and symbol of caring." (2014, p.551). In analyzing the barriers to food in an urban context, the emphasis of shelter over food, and the right to food in the city, it is easy to see that hunger produces complex landscapes that need to be addressed appropriately. The demographics of hunger are part of the invisibility, which produce a unique foodscape in the urban form. The critical analysis of this foodscape and the urban planning that interacts with it is what needs to be

addressed within current policy models, particularly in Vancouver. The impacts of hunger are radical and they should be treated as such by organizations that have the pockets and power to alleviate them.

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Relationship First

Identifying an Alternative Social Housing Approach

Fiona Jones, Kyla Altura, Therise Lee, & Samantha Peng

Introduction

Approaches to reducing homelessness tend to be bracketed into one of two established paradigms: the Treatment First (TF) model, popular until 2000, and since, the Housing First (HF) approach. The TF model states that individuals should be required to first engage in services and programs targeting the reduction of substance abuse and providing care for mental illness before being able to access housing. In contrast, the more recent HF paradigm has been successful in reducing homelessness by providing housing without requiring any prerequisites or conditions of lease. Our research began by exploring the causes of the recorded success of HF, embedding global research within the Vancouver context. Yet it quickly became apparent that social engagement, not merely the hands-off approach of HF, was vital for stability. Social housing in Vancouver provides a space for the construction of relationships, these relationships in turn bring much needed individualized stability and supportive treatment for residents. The importance of these social interactions leads to our proposed amalgamation of the TF and HF models in the introduction of a “Relationship First” approach.

Our results are drawn from interviews with non-profit organization employees across Vancouver’s lower

mainland and a geographically limited survey. Focusing on the impacts of the Marguerite Ford Apartments (MFA), our survey was conducted in the new neighborhood of Southeast False Creek. The MFA opened in 2013 with 147 units for high-risk individuals who had been chronically homeless. Chronic homelessness describes the situation of individuals who lack a stable dwelling over the long term. These individuals who are unable to secure housing often experience mental disabilities, physical limitations, or substance addiction (Turnbull, Personal Communication, 2015). Those experiencing both chronic homelessness and illness are described as “high-risk,” referring to a category defined by the Vulnerability Assessment Tool (DESC, 2015). Centering on methods for vulnerability reduction, the following study engages with the socio-spatial engagements that are enabled through the relocation of at-risk individuals to social housing in Vancouver.

Literature Review: Merging Treatment First and Housing First

The TF approach involves the use of remedial services to alleviate substance abuse. Providing professional services that include physician appointments, medication, family therapy, counselling and educational sessions, TF has become an institutionalized method stan-

dardized into a one-size fits all, three-step program (McLellan, 1993, 1956; Wells et al., 2003, 3). While the institutionalized TF process provides immediate services, the high dropout rates result in continued high rates of drug and substance abuse (Padgett, 2011, 331). In contrast, HF is based on the principle that housing is a basic right and individuals should have the opportunity to learn about housing management without any prerequisites of access (Goering 2011, 2; Padgett, 2011, 230; Tsemberis 2004, 651; Sun, 2012, 28; RainCity Housing 2015). HF's focus on the stability of physical space serves a dual function, providing a space to centralize services as well as a method by which to deconcentrate poverty.

Through enabling residential mobility the HF theory proposes that new interactions will be built which enable social mobility (Arthurson, 2004, 50; Mustered, 2003, 890). Spatial change encourages the development of a "social mix" characterized by the construction of social relationships across socioeconomic barriers (Galtster "Social Mix," 2007, 21; Lees, 2008, 2451). Studies in the UK, USA and Netherlands have identified a "contagion" effect whereby behaviors are shared within a mutually socialized community (Lees, 2008, 2454; Bauder, 2001, 253). In the context of social housing, it is hoped that with social relocation individuals will be encouraged to reduce substance abuse and other limiting practices. Quantifiably, HF participants are 43% less likely to relapse or abuse substances than their TF counterparts (Sun, 2012, 29; Padgett

et al., 2011, 229). Studies have also shown that higher levels of education, increased employment, reduction in teenage pregnancies, lower crime rates, and a reduction in drug abuse correlate with access to social housing (Lees, 2008, 2461; Bauder, 2001, 601).

However, this focus on developing intra-neighborhood, cross socioeconomic class relations silences the importance of developing the personalized relationships that provide emotional support and a sense of belonging (Turnbull, Personal Communication., 2015; Arthurson 2004, 50; Mustered 2003, 890). Close and reliable relationships enable those with mental illnesses or addictions to create their own change. For the chronically homeless, programs and mentorship are provided within the buildings support tenants. A positive and supportive relationship between a mentor and a resident usually results in the improvement of the resident's wellbeing and housing status (Turnbull, Personal Communication, 2015). Therefore, the stability-engendering engagements within buildings is key to assuring long term vulnerability reduction through access to individualized treatment within housing. These relationships rely on housing as a centralizing force to facilitate access to personalized treatment, emphasizing the importance of both HF and TF within a broader context of developing social relationships (Palepu et al., 2013, 745).

Methods Overview

Our surveys aimed to incorporate public voices into our research, allowing for a broader appreciation of patterns of

stigma, belonging and social engagement. To achieve this, data was generated from a variety of classifying, behavioral and attitudinal questions asked of pedestrians in a dog park 300 meters from the MFA. During October and November 2015, a total of 33 responses for all 10 survey questions were recorded. The independent variables under consideration were gender, education level, age and area of residence. The pre-coded dependent variables were a selection of factors contributing to greater social engagement, opinions of social housing and knowledge of the MFA. Post-coded dependent variables applied to the locations frequented by individuals and people's opinions of social housing. Our dependent variable findings yielded nominal and ordinal data once coded.

Using survey responses to guide our questions, we conducted five interviews between 16th October 2015 and 20th November 2015. Each lasting between 28 and 120 minutes, interviews provided a greater breadth and depth than surveys enabled. Participants were members of not-for-profit organizations engaged in the provision of social housing and associated services across Vancouver. Continually reflecting on our positionality we remained highly aware of both our outsider status and our limited knowledge of social housing. We sought to enable our interviews to reflect this positionality by only partially structuring interviews with open ended questions, facilitating a grounded discussion based on our mutual commitments to social change. Continuing to acknowledge this limiting positionality as undergraduate

students, within the following analysis we would like to emphasize that this study is merely a small step towards understanding the complex relationships surrounding homelessness, social housing and mental illness. Thus, our proposal of the "Relationship First" model is an evolving theory and we encourage further exploration and review.

Analysis

From our interviews with representatives of Streethome Foundation, McLaren Housing, Canadian Mental Health Association (CMHA), Covenant House and Kettle Society, we found that the development of personal relationships is fundamental to the reduction of vulnerability. From this identification we develop the Relationship First (RF) model (see Figure 1 below). Our first interview with Streethome's CEO Rob Turnbull and Communications and Project Manager Papinder Rehncy established the importance of building relationships, specifically between organizations and individuals. But whether these relationships are staff-client, client-client, family-client, staff-staff or with community neighborhoods, each relationship lays the groundwork for stability in a community-initiated model for successful engagement within social space. While TF and HF both make positive contributions to the reduction of homelessness, they are only components of facilitating relationship construction for long term recuperation from substance abuse (Turnbull, Personal Communication, 2015).

HF's provision of low barrier housing enables independence for

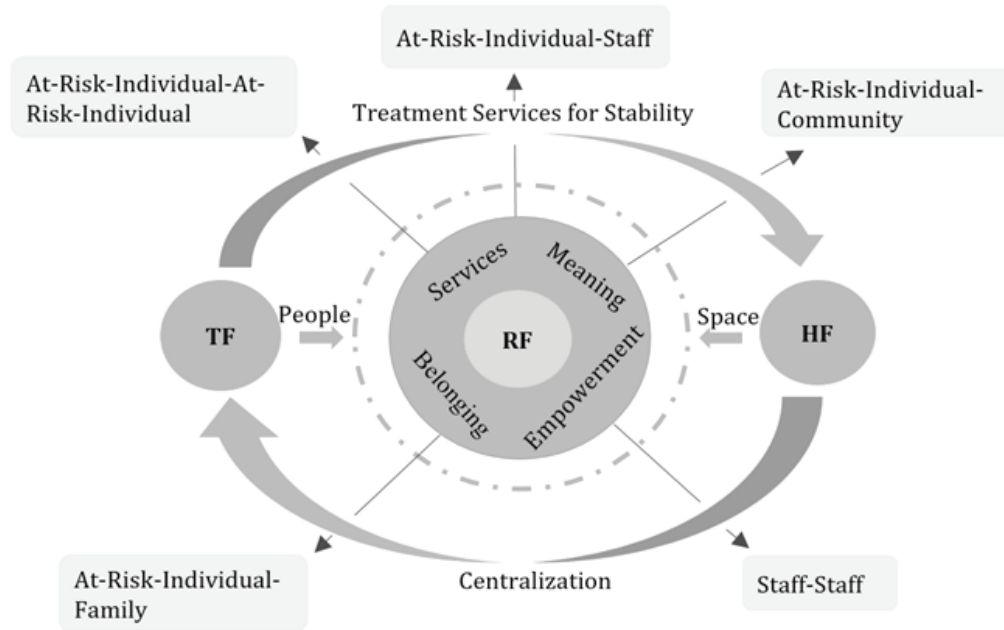


Figure 1: Relationship First Model

self-directed recovery. However, social housing projects in Vancouver contain a host of services and recovery support staff, indicative of a TF approach (Turnbull, Personal Communication, 2015). Bridging these two approaches, Turnbull drew an example from one of Streeto-home's previous tenants whose successful recovery resulted from both the self-affirmation afforded in her tenancy and the treatment services available to tenants (Turnbull, Personal Communication, 2015). Acknowledging the experienced indistinction between TF and HF, Kim Stacy (Personal Communication, 2015) stated that McLaren Housing does not follow a HF approach even though tenancy is granted only on the confirmation a positive HIV/AIDS status whilst Lokayata Kular (Personal Communication, 2015) described CMHA's approach as HF despite it requiring tenants to be enrolled in a treatment program at Fraser Health. Moving away from the HF and TF

dichotomy, all interview participants emphasized the importance of constructing social spaces for success, emphasizing the importance of firstly promoting relationship in these social spaces and secondly mitigating of factors preventing relationships.

Promoting Relationships

Initiating social spaces of engagement, Covenant House youth workers engage homeless youth through their day-to-day interactions, providing youth with a gateway to community support networks (McLellan, Personal Communication, 2015). Reaching out to those with mental health issues, Kettle Society staff frequent the targeted Commercial neighborhood, establishing local connections (Paquette and Keough, Personal Communication, 2015). These initial engagements increase public awareness of organizations and their available services. Relationships between staff members

of different organizations also facilitate referrals to other service providers and the identification of appropriate support networks for the most vulnerable (Kular, Personal Communication, 2015). Initial relationships created, Kettle Society works to generate trust through accessible programs (Paquette & Keough, Personal Communication, 2015), whilst Stacey and Kular emphasized creating positive environments for relationship construction (Personal Communication, 2015). By prioritizing relationships which encourage communication, specifically the relationships between staff and client, the personal needs of clients can be met as individuals are empowered for self-directed and self-motivated recovery (Kular, Personal Communication, 2015). This individualized empowerment of individuals through an interdependence with staff is at the root of Kettle Society's personalized "empowerment model" in which clients choose the supports they wish to participate in (Paquette & Keough, Personal Communication, 2015).

Yet the spatial scope of relationships is broad; social landscapes develop within the neighborhoods social housing projects are located in. Promoting positive intra-community relations, Kettle society organizes outreach programs, hosting outings to public libraries and schools in order to reduce the prejudices and stigmas faced by both individuals with mental illness and recipients of welfare (Paquette and Keough, Personal Communication, 2015; Stacey, Personal Communication., 2015). For a similar purpose, CHMA operates a store staffed by their clients to provide a space for

community members and social housing tenants with mental illnesses to engage (Kular, Personal Communication, 2015). This store provides an opportunity for individuals to volunteer and gain employment, a vital factor in building community belonging as well as constructing a sense of purpose (Turnbull, Personal Communication, 2015). Through employment, those who were once alienated can find a sense of purpose in being able to earn and engage in a regularized schedule (Stacey, Personal Communication 2015).

Preventing Relationships

Despite the multitude of factors contributing to the construction of relationships for recovery, there remain many limiting factors to the development of social engagement and inclusive interdependence. Four out of the five organizations agreed that the decrease in federal funding for social housing and recovery treatments has resulted in a lack of buildings and accessibility to treatment services, resulting in extremely long waiting lists and sustained homelessness. Specifically, provincial funding for mental health support services is very limiting (Stacey and Keough, Personal Communication, 2015). Moreover, the Canadian Minister of Health sets short-term goals based on political figures' terms of service rather than long-term policies for social stability (Paquette and Keough, Personal Communication, 2015). The end of politicians' terms is disruptive for recovery as goals, funding and programs come into a state of uncertain flux. Private contributions are

also unreliable and economically dependent; Covenant House, being an American-based organization, has especially noted a reduction in donations due to the 2008 economic downturn (McLellan, Personal Communication, 2015). Because of funding constraints, the inflated rental housing market in Vancouver provides few alternative dwelling and advocate organizations such that McLaren and CMHA rely heavily on staff relations with individual landlords to secure non-public residencies for their clients.

Further hindering the establishment of long term housing solutions, landlords and the general public are subject to and reproduce stigmas. Stigma plays a substantial role in hindering the growth of personal relationships as they result in a “not-in-my-backyard” mentality towards individual tenants and social housing projects (Galster, 2007). The term “welfare recipient” garners extreme distaste as the public perceives “welfare recipient” to be synonymous with substance abuse, disturbance, and ill-mannered behavior, leading communities to initially reject social housing project proposals (Stacey, Personal Communication, 2015; Galster, 2007). Speaking in the case of tenants with disabilities, Nancy Keough states: “carrying the stigma of mental illness is at times worse than being diagnosed” (Personal Communication, 2015). Emphasizing the impact of stigma on housing, Stacey described the experience of a pregnant woman and her child being turned away from their new home by a landlord as he learnt she was HIV positive (Personal Communication, 2015). Unable to access housing

due to the plethora of social stigmas, clients face frequent rejection (Keough, Personal Communication, 2015). Continual rejection not only leads to a lack of physical and mental well-being but also prevents clients from becoming interdependent, diminishing their own self-perception and the establishment of relationships (Keough, Personal Communication, 2015). Seeking to mitigate public stigma and fear of social housing, Streetohome’s preparation stage for any social housing project involves both community meetings and a basis of public education for surrounding residents (Turnbull, Personal Communication, 2015).

Despite these efforts, the negative attitudes and persistent stigmas were evident in survey responses: 28.5% of Southeast False Creek residents described social housing in their neighborhood to be a positive, 36.4% perceived it to be negative and 42.3% were neutral. Of the 19 non-residents surveyed, 78.9% thought social housing in the neighborhood was positive, 0% thought it to be negative and 21.1% perceived it to be neutral. Out of the 33 people interviewed, 45.4% were aware that the MFA was a social housing unit with 6.6% perceiving it to be positive, 28.5% thought it as negative and 66.7% were neutral. For the 18 individuals who were not aware that the MFA was a social housing project, 100% thought the building would be a positive contribution to the neighborhood. Although our sample size consisted of only 33 people, a pattern developed supporting the not-in-my-backyard thesis. Non-residents were

more inclined to state that the building was a step towards the mitigation of substance abuse and homelessness whilst residents were more concerned with the preservation of the neighborhood's safety and appearance. One resident described the housing unit as a "ghettoization" of the community, commenting on the unkempt appearance and social disturbance accompanying the building. Although less explicit, most residents indicated their discomfort with individuals from the MFA frequenting the central plaza occupied by expensive stores and restaurants. One resident noted that the presence of social housing tenants near Urban Fare, three block from the MFA, made them feel uncomfortable. Despite this separation within the neighborhood, residents and non-residents alike indicated that "access to affordable housing" is the most important factor for ensuring greater social engagement.

By using the MFA as a case study for public perception of social housing it becomes evident that stigma is highly prevalent in Southeast False Creek. The social gap between private residents and social housing tenants remains wide, preventing the establishment of social engagements within the community. The data highlights an othering of social housing tenants which serves to enhance the distancing impacts of stigma. The hindered development of community interdependence and engagement prevents the socialization and contagion effects identified in literature from occurring. The lack of relationships further allows affluent populations to adopt a distancing discourse of aid to

social housing tenants rather than appreciating the contribution all residents make to the construction of neighborhood and community. Therefore barriers to relationships include but are not limited to: personal experience with ongoing loss and trauma, mental illness, criminal activity or debt, which all influence one's ability to form relationships, furthering their societal alienation (Stacey, Personal Communication, 2015).

Conclusion

We identified a need for a flexible approach for assisting at-risk individuals, one that builds relationships to enable individuals' unique needs to be met. We identified five relationships: staff-to-at-risk-individual, at-risk-individual-to-at-risk-individual, staff-to-staff, staff-to-community, and at-risk-individual-to-community. Emphasizing the importance of these relationships, the relationship between a mentor and an individual promotes a reciprocal sense of trust. In turn this trust generates an open environment in which at-risk individuals feel comfortable enough to consistently update their mentors on health, service, or housing concerns. From these, communications service providers are in a better position to provide at-risk individuals with their needs whilst individuals can access the support they desire. Moreover, when mentors build relationships among themselves a network of resources emerges. Through this interwoven network, mentors are able to direct at-risk individuals to the appropriate mentor that is able to assist them. This extension of support through

relationships is furthered by interactions between at-risk individuals who communicate knowledge of available resources to raise awareness about support. However, the impacts of these vulnerability reduction relationships are curtailed by stereotypes and stigmas which breed interactions detrimental to support, stability and recovery.

The Relationship First model is uniquely poised to incorporate both the promotion of positive relationships and to facilitate the reduction of harmful stigmas, while also centralizing the social engagements overlooked by HF and TF streams of thought. The RF model's incorporation of public attitudes and understandings of homelessness broadens the mandate of social housing provision to include societal change, addressing the root causes of vulnerability not only its symptoms. Homelessness is a social phenomenon and it is only logical that part of the solution should be a social shift. Therefore, we recommend incorporating a RF approach in social housing projects such that individuals can benefit from the services provided in TF programs as well as the stable environments of HF projects. Grounded in the practicalities of experience rather than the often politicized ideals of theory, the RF approach enables the simultaneous individualization of care and broad socialization of long-term solutions; at-risk individuals can communicate their priorities and receive the support they need whilst public attitudes are targeted for deeper and more persistent security.

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A Case Study of the City of Vancouver

Re-evaluating the Epistemology and Methodology for Understanding World Cities in a Global Landscape

Mana Hashimoto

In our current society, defined by the era of 'globalization' wherein more than half of the world's population now lives in cities, the study of the role of cities has received great attention. With the inherent capacity of cities to attract people, capital, and information throughout a global network, scholars of urban geography have established theories and hierarchies in an attempt to understand the pivots where the axis of these global flows are based. The epistemology and methodology of scholastic research however have been limited to using quantitative indicators with a focus on the economic capacities of cities. As a result, they systematically overlook the role of other critical indicators that contribute to the understanding of the circulation of global flows through cities.

In response, this paper addresses the need to examine the status of global cities in the 'real imaginations' of citizens and the global community in tandem with other possible indicators. Considering the media-sphere as an index and the City of Vancouver as a case study, this article reveals the limitations of the traditional epistemology and methodology by contrasting Vancouver's absence from the rankings of traditional 'world-city' literature with the reality of its prominent presence as a global city in the 'real imaginations' of the media-sphere.

Contemporary global society has been greatly characterized by the increased integration and migration of peoples, the spread of cultures and ideologies, and the liberal circulation of finance across international regions due to the advancement and proliferation of transport and communications technologies. Due to the fluid movement of these entities, scholars have identified these events as 'global flows' (Borja, et al., 1997) that circulate the world, irrespective of geographic barriers - a movement apprehended in the common literature as 'globalization'. In this discourse of globalization, cities have gained particular attention, as these specific geographic regions have been key in enabling these global flows to settle and to continue its

fluid movement around the world. Jordi Borja and Manuel Castells (1997), whose writing stress the significance of the role of cities in facilitating globalization, precisely express this movement of global flows in which "flows have a source and a destination, and those are the places where population, activities and power concentrate: the cities" (p.203). Although these global flows are becoming increasingly free flowing as restrictions on their movements are removed by free-trade and deregulation of liberal ideologies, there are some regions that attract more global flows than others. Geographers who study the dynamics of the global landscape, such as Peter Hall, author of *World Cities*, observe clear patterns wherein "there are certain great cit-

ies in which quite disproportionate part of the world's most important business is conducted" (Hall, 1984, p.1).

It then became a natural progression in the field for researchers to map out which cities have the biggest influence and to quantify and rank them, creating a hierarchy of these cities based on their attractiveness and relevance to the global community. These distinctive regions with cultural, economic, and political capacities to influence on a global scale were referred to as 'world-cities'. Since Peter Hall's initial contributions to the 'world-city' discourse in 1966, geographers have been searching for the appropriate quantitative data to harness this intangible pattern that has contributed profound dynamics of global influences on local scales. In the progression of understanding the fluid movements of globalization in world cities, there has been a notable constant emphasis of using quantitative measures to understand the relevance of world cities. There has also been a particular emphasis on using empirical economic data to quantify the scale of this hierarchy. In such respect geographers, such as John Friedmann who proposed the "World City Hypothesis" in 1982, and the research group led by Peter Taylor at the Globalization and World Cities (GAWC) team, have attempted to quantify the city based on this empirical data that scholars have justified as an appropriate indicator of significance and relevance to the global community.

However, I argue that the assumptions made in traditional world-city analysis literature are limiting a more com-

plex discussion of the role and relevance of world cities. In the living reality of the global modern society, the perception of a 'world-city' and a city's 'global-ness' is not always empirically perceived and understood in terms of the economy or the presence of global firms. Instead, 'world-city' status can be shaped by how a city is lived in the imaginations of its citizens and the global community. The economic bias in the epistemology, "the branch of philosophy concerned with theories of how to acquire knowledge, and how to evaluate the limits and validity of knowledge" (Wyly, 2012, p.8), and in the chosen methodology, the "sets of techniques used to generate particular kinds of knowledge" (p.8), becomes clear when examining the foundational literature on world cities. By attributing world-city status to only those with economic significance, the epistemological understanding and the methodology conducted to perform the analysis systematically displaces the role of other combining elements that contribute to the circulation of global flows around the world. With such considerations, I argue that because human thought processes fundamentally organize global flows, global imaginations and perceptions of cities need to be integrated into the discourse of understanding globalization and the geography of world cities. I re-evaluate the epistemological assumptions underlying the definition of "world cities" and the methodological ways in which it has been measured to highlight its limitations for understanding the abstract phenomena of globalization and world cities. Drawing upon a case study

of Vancouver and its representations in the media-sphere, I will illustrate the discrepancy with the real imagined landscape of world cities when limiting the conversation to quantitative economic indices.

To review the existing discourse on “world-cities” and the foundational definitions of the concept, I begin by exploring the epistemological origins of the world-city. Peter Hall, credited for his early exploration for the “world-city” concept, who wrote in the context of a growing industrial age wherein manufacturing was the prominent economic sector of most countries, constructs the foundations of world cities discourse by emphasizing cities as facilitators of industrial economic growth. He states clearly, “nothing is more notable about the world cities, taking the long historic view, than their continued economic strength” (Hall, 1984, p.2). His opening statement exclaiming, “there are certain great cities in which a quite disproportionate part of the world’s most important business is conducted” (1984, p.1) demonstrates how Hall conceived the cities as isolated nodes in the global system. For Hall, “important business” meant government, trade, and the agglomeration of wealth, talent, and entertainment. Approximately three decades later in 2002, Hall would update his industrially-based theories for the modern information age in Christaller for a Modern Age, emphasizing the modern production and distribution matrix of the global information age.

Building on this vision of world cities, John Friedmann (1986) proposes his “World City Hypothesis” by considering

an organization of the world economy based on a network of city nodes. He reinforces the values of efficiency and productivity by highlighting functions such as the “new spatial division of labour” (p.70) and “concentration and accumulation of international capital” (p.73). Friedmann claims that his “purpose in this introduction is to state... the main theses that link urbanization processes to global economic forces” (1986, p.69). He proposes a “hierarchy of world cities” based on these economic underpinnings of “production and markets” (p.71). Furthermore, in reference to Friedmann, the article by Anthony Goerzen, Christian G. Asmussen, and Bo B. Nielsen (2013), Global cities and multinational enterprise location strategy, observes the persistent pattern of understanding the world-city in terms of the “global economic role of cities” (p.429) reinforcing the tendency to understand the epistemology of the concept in economic terms.

However, succeeding Friedmann, Borja & Castells (1997) intervene the popular epistemology of understanding the significance of world cities that was previously conceptualized in terms isolated events, to consider cities as a connectivity of nodes. They emphasize that globalization takes place in and through cities, recognizing the key relevance of the relationship between cities, rather than just in cities, successfully capturing the constant kinetic motion of globalization and the role of cities in that process. These scholars reimagine the existing rhetoric to highlight that “[cities] are in fact, the most suitable instrument for

joining a system which as a whole tends itself to function entirely as a network” (p.207). With this contribution, Castells and his team resituate cities in the circulations of global flows, adding that “the processes of globalization do not arise at the fringes of cities, but cities play an active part in them at the same time as they are affected by them” (p.203). Assuming these theories founded by generations of geographers, beginning with Peter Taylor who specializes in exploring methods to quantifying the hierarchy of global cities, Jonathan V. Beaverstock, and Richard G. Smith (2000) introduce a new interpretation by presenting a quantitative method using empirical data to represent the world hierarchies of cities in the global system. Working in their Globalization and World Cities (GAWC) Research Group, Beaverstock et

al. (2000) design a quantifying method to rank the cities, attempting to harness the in-between relationship emphasized by Castells by examining the locational strategies of advanced service firms that operate internationally.

Borrowing from the detailed explanation outlined by Elvin Wyly’s Notes, Mapping Global Firms and World Cities, the following section details the GAWC team’s epistemology and methodology in approaching the world cities phenomenon. Wyly outlines how the research team utilized the locational strategies of major producer service firms “that had significant operations across multiple cities” (2012, p.3). As these multinational firms are nonaligned with national jurisdictions of states, they are able to strategically choose where to locate their firms based purely on notions of

First-rank	Second-rank	Third-rank	
• London • New York • Tokyo • Paris • Chicago, IL • Frankfurt • Hong Kong • Los Angeles, CA • Milan • Singapore	• San Francisco, CA • Sydney • Toronto • Zurich • Brussels • Madrid • Mexico City • Sao Paulo • Moscow • Seoul	• Amsterdam • Boston, MA • Caracas • Dallas, TX • Dusseldorf • Geneva • Houston, TX • Jakarta • Johannesburg • Melbourne • Atlanta, GA • Barcelona • Berlin	• Buenos Aires • Budapest • Copenhagen • Hamburg • Istanbul • Kuala Lumpur • Manila • Osaka • Prague • Santiago • Taipei • Washington, DC • Bangkok • Beijing • Rome • Stockholm • Warsaw • Miami, FL • Minneapolis, MN • Montreal • Munich • Shanghai

Table 1: Roster of World Cities, table adapted from Pacione (2013) as created by Beaverstock et al. (2000)

efficiency and productivity. Based on the dataset provided by Taylor and distributed by Wyly, the GAWC research group bases their research on 46 firms in a matrix of 54 countries selected for investigation. The firms were chosen in the fields of “accounting, advertising, banking/finance, and commercial law” (Wyly, 2012, p.3). Thus, their decisions and locational strategies are considered to be an appropriate empirical indicator used to measure the chosen destination’s significance and importance in the global city network. The result from the calculation is outlined in Figure 1, the table created by Beaverstock et al. (2000), listed in *Urban Geography* by Michael Pacione (2013) as the “Roster of World Cities” (Table 14.6, p.297.)

Table 1: Roster of World Cities, table adapted from Pacione (2013) as created by Beaverstock et al. (2000)

At first glance, this chart seems to fairly illustrate the hierarchies of the world cities geography based on the locational strategies of the multinational firms. The chart clearly positions London, New York, and Tokyo, the three most influential cities recognized in the global sphere, as the first-ranking cities. However, as noted by Wyly (2015b, Slide 19), of the cities in the second and third tiers, it is harder to make definite statements as they come in close competition with each other in the lack of clear global recognition in the world-city geography. Considering how the rankings are rather vague, it can be suggested that to fully understand the nature of globalization, there should be a more heuristic approach beyond the matrices

of the economic corporate influence. As outlined in this development of the epistemological and methodological ways of understanding globalization and the role cities play in this process, the rhetoric emphasizing the economy and the empirical methodologies to measure its scale has remained prominent. In the book, *Spaces of Geographical Thought*, writers of the introductory chapter, “Deconstructing Human Geography’s Binaries,” Paul Cloke and Ron Johnston (2005) recognize the paradox of organizing a complex reality into binaries and categories for easier comprehension, undermining the very essence of the intricacy and sophistication of real world relations in the process. Citing Olson Gunnar (1980), they argue, “one way of breaking free from binary understandings has been to pursue alternative systems of logic, developing multifaceted and fuzzy logics with which to transcend binary assumptions of either/or” (p.14). Thus in this respect, I suggest an ‘alternative system of logic’ that as global flows are fundamentally controlled by human thought processes, global imaginations and perceptions of cities should not be omitted from the discourse of globalization and world-city status.

This approach is especially significant when considering the city of Vancouver, noting the absence of the city based on GAWC Research team’s investigation in reference to Table 1. With a population of approximately 2.3 million people in its greater metropolitan region (B.C Stats, 2011), the city of Vancouver boasts a successful city image campaign of multiculturalism and global

participation. Vancouver has made a consistent appear since 2007 in the high ranks of the Global Liveability Report of the world-renowned publication, The Economist, illustrating that Vancouver is situated in the real global imaginations of citizens and the international community with a global status. Yet despite its position in the real world, Vancouver has been displaced in the conversation based on the epistemological assumptions made to quantify the world-city status. The selection of criteria that legitimize and value the cities that support the economic principles of globalization and global flows consequently inherently displace other cities such as Vancouver that may be considered global from a different perspective.

While Taylor et al. applies the logic of advanced service firms as a measure of a city's 'global-ness' and its significance in the current of globalization, I instead consider the representations of the city in media streams, specifically online news outlets, as a method to capture the real imagination and global community's perception of the city. This approach follows James W. Carey's (1998) work, highlighted in Mike Gasher and Reisa Klein's (2008) of Mapping the Geography of Online News, in which Carey considers the transformations in the re-imagining of 'space' in the Internet age in ways that "it will also require gradual and concurrent changes in physical, symbolic, and media ecologies, in the ways people live and imagine space" (p.195). Applying this additional element to understanding 'world cities,' I investigated various

news outlets from a random choice of countries to map out Vancouver's level of global recognition in the media-scape. The chosen news outlets were specifically: South China Morning Post (Hong Kong), El País (Spain), ZeeNews (India), BanderasNEWS (Mexico), The Australian (Australia), TodayOnline (Singapore), The Philippine Star (Philippines). The term 'Vancouver' was searched in these 7 news outlets, and dozens of news articles were provided that reflected the city's image. The following is a list of the headings of some of the articles:

"Vancouver on your mind? See how the city brims with life—Watch here!" (ZeeNews, January 27, 2016)

"Vancouver y el dilema del éxito"—Translated as "Vancouver and the dilemma of success" (El País, April 24, 2015)

"Vancouver Named Top Gay-Friendly Travel Destination in Canada" (BanderasNEWS, October 2007)

"24 hours in bustling Vancouver" (The Australian, November 11, 2012)

"Vancouver receives many positive impressions" (The Philippine Star, September 19, 2010)

Each of these headlines effectively captures the essence of the city's global status—the ways in which the city is being perceived from within the city, and also the perception from the global community. This investigation demonstrates how even without a high attraction for international firms, the city is recognized with a degree of world-city status and global-ness.

In addition to online media, global mega-events that get widely broadcasted on television which involve an

international audience help to establish a consensus of a world-city based on the building of a perception of 'global-ness'. Among numerous scholars who have discussed the powerful image-branding potential mega-events have on a city's image, David Whitson (2004), author of *Bringing the world to Canada: the periphery of the centre*, discussing Vancouver's bid for the 2010 Olympics, argues that "hosting an Olympics has been seen as opportunity for regional cities to aspire to greater status, both nationally and internationally...to showcase themselves as world cities" (p.1218). As such, Vancouver's successful hosting of the 2010 Winter Olympics had introduced the city's capacity to accommodate for various cultures and ethnicities to the perceptions of worldwide viewers. Accordingly, Vancouver's role as a successful host for large-scale global events is reflected in the media-sphere as evident in the following headlines:

"Women's soccer draws viewers, fans as FIFA scandal simmers" (Today-Online, June 11, 2015)

"Lecciones desde el mundo que viene"--Translated as "Lessons from the world to come" referring to the TED Talks Convention (El País, March 25, 2014)

"Vancouver named as new World Series stop for Olympics year" (South China Morning Post, February 25, 2015)

Despite being excluded and unrecognized in the traditional discourse and the quantitative results from Taylor's examinations, these representations of Vancouver's global status in the media

structure the city's presence as a 'world city' and reveal the perception of the city in global real imagination. In this sense, the case study of Vancouver highlights the issues of the limitations created by the epistemological and methodological assumptions made about the significance of world cities, demonstrating how a city's relevance to the global community is not exclusive to the presence of international firms. By emphasizing the relationship between the firms and the economic significance of cities with their world-city status, cities like Vancouver with a clear standing in the international community are prevented from joining the conversation.

However, in the very theory of understanding globalization and world cities, considerable limitations must be attributed to this investigation itself as well, as the index of timing can play a critical role. Given that globalization is a movement constantly in action, the very methodology of trying to grasp globalization will always lag behind the immediate phenomena it is trying to describe. While I engage with the theories of Peter Hall from 1966, and Peter Taylor from 2000, I write this essay and base my evidence of the global status of Vancouver in February 2016. This constant straggling behind of trying to explain the current trends of constant movement by capturing it in a moment will have a consistent discrepancy in the conversation. The theory of trying to understand and describe the intangible phenomena thus is comparable to quantum physics, as whenever one tries to observe globalization by capturing it in a particular

moment, it distorts the real nature of it in motion.

In a world where finance and the economy receive careful observation and immense attention, there has been a tendency to emphasize quantitative data. In such nature, traditional world-city discourse assumes world-city status based on economic capacity. However, as this exploration demonstrated, global recognition is not only limited to such indicators, as the global significance of a city can be understood by simply how the city is perceived by the global community in real imaginations. This investigation thus considered the limitations of epistemology and methodology by understanding how different indicators of global rankings create different understandings of the real world imagination. Finally, this case reinforced the complexities of theory making and the inevitable dislocations when trying to explain reality in a linear way of thought, while reality is intertwined and is associated with a multitude of simultaneous factors.

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A Socio-Spatial Analysis of The Heights

North Burnaby's Premier Commercial Destination

Hyunsoo Kanyamuna

Praised by locals and visitors alike, The Heights is highly regarded as an urban success story. A legacy of economic triumph and tribulation is chronicled in the North Burnaby neighbourhood's history, though this may not be evident at first glance. An interplay between social, spatial, and economic forces underlies a battle between preservationists and property developers. The process of gentrification is morphing the façade of the heavily commercialized site, introducing an array of high-end boutiques and specialized services that deviate from the community's original identity. This essay explores the neighbourhood's transformation over time, emphasizing the pre-colonial narrative of the Tsleil-Waututh Nation that is absent from municipal archives. A retrospective of the locale's emergence as an economic entity follows, ultimately framing a critique of the future trajectory of The Heights: North Burnaby's premier commercial destination.

Introduction

My morning begins at Caffé Divano. In fact, it is not unusual for my first conversation of the day to be held with the barista. Through the windows of the café I admire the Christmas lights that adorn the trees lining both sides of Hastings Street, creating an air of effervescence juxtaposed by the headlights of oncoming vehicle traffic. With my espresso in hand I exit the shop, prepared to begin my day. As The Heights undergoes extensive redevelopment, a shift towards a contemporary urban lifestyle draws both inspiration and apprehension from its roots as an intimate merchant community. This essay will explore the evolution of The Heights through the lens of its colonial past and its 20th century history. A critique of the present and future conditions of the area will follow, accentuating the inconsistencies that exist between its historical and its modern identity. This analysis of the interplay between the social, spatial, and economic factors

throughout The Heights' history will provide a comprehensive review of the neighbourhood's transformation unto the present day.

Colonial history

Beneath the pavement and the incessant commotion spurred by the holiday season, a unique topography serves as the base of The Heights. It climbs elevated terrain, peaking at the summit of Capitol Hill, from which views of the snow-capped North Shore Mountains and the high-rise towers of Downtown Vancouver occupy the same frame. The neighbourhood is delimited by the Burrard Inlet, which is hidden by a haze of mist in the morning hours. In the evening, the sunset reflects off of the channel and paints a picturesque vista kept secret by longtime residents of The Heights. However, prior to the establishment of the businesses and residential areas that occupy the neighbourhood today, The Heights was home to the

Tsleil-Waututh Nation (Destination BC, 2015). The traditional territory of this First Nations community extends from Mamquam Lake in Garibaldi Provincial Park to the Fraser River, accommodating a population of approximately 10,000 (Maxwell, McLintok, Bachinsky, & Laing, 2008, p. 4; Lambertson, 2011). An abundance of natural resources covered their land in the pre-colonial era, providing the Tsleil-Waututh with direct access to food, shelter, and other basic needs that necessitated survival in the hunter-gatherer society. With the arrival of the spring and summer seasons, the Burrard Inlet was used as a transportation channel and a key fishing destination. The Tsleil-Waututh, meaning “people of the Inlet,” (Tsleil-Waututh Nation, 2015) strongly valued the land, the sea, and the air. For this reason, the shoreline of the Burrard Inlet was sacred to their people.

As a result of the British Army’s colonizing efforts, both the population and the territory belonging to the Tsleil-Waututh were decimated in a process identified, by David Harvey (2003), as accumulation by dispossession. Indigenous culture and traditions were suppressed, muted to the liking of draconian ‘civilizing’ procedures such as the implementation of the residential school system. British settlers soon followed, seeking to exploit the region for its wealth of natural resources, infringing on the sovereignty of the First Nations community. The colonizers’ capitalist outlook instigated a discord with the appreciation that the Tsleil-Waututh held for their surrounding environment

(Tsleil-Waututh Nation, 2015). The harvest from their sacred land, water, and air was of great spiritual significance and served as a means of subsistence. For the Tsleil-Waututh Nation, nature was not perceived as a unit of exchange nor as a commodity for trade in European markets. Harvey (2003), a Marxist geographer, denotes this “commodification and privatization of land and the forceful expulsion of peasant populations” (p. 37) as a means of primitive accumulation. A tiered social structure emerged, assigning the Tsleil-Waututh to the lowest ranks of society. This draws parallels to the “plantation classificatory grid” (p. 29) explained by Clyde Adrian Woods (1998), which placed oppressed “African Americans... at the bottom of this order” (p. 29) in the Mississippi Delta. The product of the “process of proletarianization” (Harvey, 2003, p. 146) is a hierarchical model which facilitates accumulation by dispossession, granting the presiding British colonizers unrestricted access and jurisdiction over the Tsleil-Waututh’s territorial resources.

With the objective of commodifying the Tsleil-Waututh’s rich environment, the British Army sent the Columbia detachment of the Royal Engineers to explore the area of present-day Burnaby in 1858 (Province of British Columbia, 2015). Robert Burnaby, an explorer and Freemason whose name had been conferred onto the city in 1892, led the unit on behalf of his employer, Richard Moody (Province of British Columbia, 2015). A wave of European pioneers accompanied their arrival, calling Burnaby their new home. Their movement

follows the trajectory of Harold Innis' staples theory, producing a "spatial configuration... that tended to centralization and the power of the metropole" (Barnes, 1993, p. 352). For these migrants, the economic climate of British Columbia was conducive to prosperity as it aligned with the beginning of the Gold Rush. The accumulation of wealth from gold translated to a direct access to capital, providing funds that opened opportunities to invest and therefore, to climb the social hierarchy. A cohort of European settlers allocated this capital towards metropolitan industrialization (Barnes, 1993), building a town in a location which was conveniently situated in the geographical center between Vancouver and New Westminster. As a resource-based economy, Innis' framework affirms that the export of staples was a key determinant in the decision of developing the land on which North Burnaby stands today. This area, laden by clear-cut forests and expansive fields, will eventually be known as The Heights; Burnaby's premier shopping and dining destination.

20th century history

Lacking a foundation of economic autonomy, the initial development stages of North Burnaby are described by Maxwell, McLintock, Bachinsky, and Laing (2008) as a "typical resource-based boom and bust town" (p. 1) that is hypersensitive and vulnerable to global economic events, notably the Great Depression. The construction of a trolley system connecting North Burnaby to Downtown Vancouver via

Hastings Street facilitated transportation between the two urban nodes, allowing commuters to travel to work efficiently. In this respect, North Burnaby began as a suburban bedroom community, housing workers who would travel to their workplaces in Downtown Vancouver, the region's central business district, on a daily basis. From the post-World War II period through the 1950s, The Heights was frequently acknowledged as "an extension of Vancouver," (Heights Merchants Association, 2015) deprived of a distinctive feature which would have set it apart as an independent community.

Consistent growth did not appear until well into the post-war era, evidenced by the emergence of The Heights. Vancouver's influx of ethnic immigrants was strongly reflected in North Burnaby, a demographic characteristic that had manifested into a collection of diverse street-level shops and restaurants along Hastings Street. The entrepreneurial opportunities presented on Hastings Street were attractive to small business owners, driving the neighbourhood's appeal to unprecedented levels. In addition to the newfound commercial success of The Heights, the North Burnaby area had established itself as a hub for chemical and oil industry activity (Maxwell, McLintock, Bachinsky, & Laing, 2008, p. 10). Leading multinational energy corporations such as Chevron and Kinder Morgan invested in the development of large-scale processing plants, creating job opportunities for hundreds of workers and generating millions in revenue. Further down Hastings Street, a reserve of intellectual capital was built

with the establishment of Simon Fraser University in 1965 (Destination BC, 2015). Designed by renowned Canadian architect Arthur Erickson, the institution garnered international attention that brought many students and faculty members to the neighbourhood.

As The Heights grew in size, the 'North Burnaby Merchants', a trade association, was formed in order to centralize the wide variety of amenities present along Hastings Street (Heights Merchants Association, 2015). This fostered the idea of a communal identity. By virtue of this collective, a sense of community was built among local businesses that regularly convened to participate in neighbourhood events like the emblematic 'Hats Off Day.' This celebratory event ranks among Greater Vancouver's most frequented street festivals and is held in commemoration of The Heights' legacy.

In 1979, the Provincial Department of Highways proposed a plan to eliminate street parking along Hastings Street, which would have detrimentally "impacted the integrity of the area" (Heights Merchants Association, 2015). The pedestrian-friendly sidewalks are planning features that encourage people to promenade down the length of The Heights; to remove the neighbourhood's accessibility would be equivalent to the destruction of the community as a whole. This issue was the first political undertaking for the North Burnaby Merchants, now renamed as the 'Heights Merchants Association', whose efforts to combat the proposal had drawn a successful conclusion. Hats Off Day was created as a celebration of the neigh-

bourhood's victory, "a way for the merchants to recognize their customers and [to] take their hats off to them" (Heights Merchants Association, 2015). Situated on Hastings Street, the annual street festival is the largest in the city, attracting upwards of 60,000 visitors on the first Saturday of each June.

Present and future

A recent interest in The Heights from Vancouver's leading property development firms is transforming the face of the neighbourhood. Mixed-use developments have combined the iconic street-level commercial setting with modern condos, resulting in an increase of the area's density. The rezoning of Hastings Street from Boundary Avenue to Gamma Avenue has made these developments possible (Maxwell, McLintok, Bachinsky, & Laing, 2008), introducing new amenities to the North Burnaby area. In accordance with The Heights Merchants Association's long-standing mandate to homogenize the neighbourhood's economy with local businesses, the new attractions are predominantly boutique-style shops owned by local residents. A sense of community continues to thrive in The Heights, although a recent trend of upscale establishments poses the question: have the community's values changed?

Akin to the discourse surrounding Vancouver's real estate market, the developments lining Hastings Street in North Burnaby command prices that are inaccessible to the majority of the neighbourhood's inhabitants (Hackworth and Smith, 2001). An upgrade

of the caliber of shops ensues, marked by the introduction of artisanal coffee shops and Parisian bakeries, hot yoga studios, Cross-Fit gyms, sensory deprivation tanks, and multicultural fine dining options. Unable to afford the rising rental rates, an increasing number of businesses and residents are continually forced to relocate to more affordable areas in the city (Hackworth and Smith, 2001); the elite and the upper-middle class are replacing the middle-class in a second wave of gentrification. The rezoning of The Heights has transferred power from the Heights Merchants Association to the hands of a select few property developers, representative of a generational shift of values towards a more urban, cosmopolitan lifestyle. The familial “neighbourliness” that is characteristic of The Heights is currently being calibrated to accommodate a new income bracket, adding an element of prestige to the area’s branding.

Conclusion

Home to an array of independent shops, restaurants, and boutique services, The Heights is as fit for the cover of contemporary lifestyle magazines, as it is for historical archives. Evidence of the site’s economic predisposition as a resource-based town is reflected in the heavily commercialized strip of Hastings Street, which marks the core of this North Burnaby neighbourhood. Its extensive history is a cause for celebration, attracting a stream of visitors onto Hastings Street at all times of the year. With that said, the chronicled history begins in a post-colonial context, ignorant of the

rich yet devastating history that belongs to the Tsleil-Waututh Nation. Today, The Heights’ slogan reads “life as it should be” (Burnaby Heights, 2015). This portrayal of a community-oriented lifestyle is one that has been mastered by the neighbourhood, though its continuity is brought into question as future developments push the cost of living past the means of its current residents.

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American Political Discourse and its Effects on Geographical Imaginaries of Latin America

Emilia Oscilowicz
ESSAY

As an aspiring academic in geography, a young adult passionate about social and environmental justice, and a citizen of three nationalities — American, Canadian, and Polish — I like to think of myself as someone who is well-cultured and relatively aware of inaccurate and inappropriate perspectives of the world around me. I've studied at a world-class university, under acclaimed professors and scholars who have attempted to teach their students to see the world in an unbiased and educated way through analysis and discourse. And just as my studies at UBC have taught me to scrutinize all arguments and positions, I must also explore the root of my own knowledge — my own geographical imaginaries of the world. By situating my personal history in conversation with academic sources on Latin America and imagined geographies, I identify not my childhood as defining my imagined geography, but rather systemic political problems in the United States as the root cause. Using Juanita Sundberg's discussion of the ways in which Latin America is viewed by the Western world as well as Boaventura de Sousa Santos's lecture on why epistemologies of Latin America are not lesser than those of the Western world, I examine the development of my own geographical imaginary of Latin American people and landscapes.

Las Vegas, Nevada has obvious Latino influences, just from reading its name. Even my earliest memories of Las Vegas have been heavily influenced by Latin America. Many of these memories of Latin influence were very positive, while others had a negative light shed

on them. I remember seeing Latino men mowing neighborhood lawns and Latina women accepting my mother's dry-cleaning behind the counter. Fascinatingly, when I re-analyze my childhood, I remember that I thought everyone who 'looked' Latino (i.e. tanned skin, dark eyes, dark hair) and who spoke Spanish were Mexican. That is, my geographical imaginary of Latin America was that Mexico was Latin America. In essence, my childhood imaginary had been corrupted by reductionism, just as Juanita Sundberg argues many scholars have done in the literature of Latin America (413). However as a child, I realistically wasn't reading academic articles that portrayed Latin America as "a coherent unit" (413). So, then, where did this idea of cultural and national homogeneity develop?

My memories continue to the years leading up to 2004 and how these were an important time for American politics. The media was inundated with words like "Mexico", "Mexican", and "immigration". Then Republican President George Bush and Democratic Presidential Candidate John Kerry debated heavily about the idea of "building a wall between Mexico and America" and stopping "illegal immigration". A deluge of phrases were hurled at me during my most impressionable age: Mexicans were taking American jobs, Mexicans were not paying American taxes, and Mexicans were giving birth to "anchor-babies" to force the American government to accept them.

Even the common term 'immigrant' began to take a negative connotation

“I had been taught a very American epistemology: be nothing but American and don’t identify with anyone who could possibly be un-American.”

among my young and ignorant groups of friends. If I mentioned that I was born in Canada, then I was also immediately segregated into the same classification as “illegal immigrant”. I was often asked, mostly jokingly, to present my Green Card. Sometimes even adults, like parents of friends or teachers, would ask for documentation. Whereas I used to proudly state my parents were both Polish immigrants and I was born in Canada, I now kept silent about my non-American status because at the time I didn’t want to be associated with this geographical imaginary of unwanted and illegal peoples from Mexico and Latin America.

As an adult now living outside the United States and with a far more realistic geographical imaginary of Latin America, I can finally identify the highly discordant politics of Las Vegas as being the main basis for the development of my inaccurate and highly racist geographical imaginary. I was inundated with the idea that Latin America was,

in itself, Mexico and that Mexico was a country of impoverished, uneducated people who illegally sought shelter in America. These politics, thoughts, and ideas permeated into my schooling and thus also into my social life (as friends ignorantly discussed what they had heard from parents and the news). I had been taught a very American epistemology: be nothing but American and don’t identify with anyone who could possibly be un-American.

With further examination, it’s possible to identify why Latin America is ostracized, maltreated, and forced to associate with an erroneous imaginative geography. The United States still views Latin America as a commodity and as an extraction source for highly sought after resources including food, oil, and minerals. The United States enacts a Western epistemology of viewing the peoples of Latin America as subjects and not citizens, especially those from Mexico (de Sousa Santos 2012). Subjects have no agency to enact their own change, hold far less rights than those who are citizens, and are those who are “isolated, backward, traditional, violent, peripheral, underdeveloped and poor” (Sundberg 413). With this, the United States finds authority in the establishment of this negative geographical imagination within its own American citizens, and therefore the de-agency of Mexican and other Latin American peoples.

To clarify, my geographic imaginary of Latin America has evolved immensely through personal maturation and expansion of my overall world knowledge and awareness. I no longer conform to

a geographical imaginary so racist and oppressive. Instead, my new geographic imaginary of Latin America is far more refined as I have a better understanding of the effects of history and politics on this region of the world. Many other Americans are adopting new, more refined geographic imaginaries of Latin America with the addition of more Latino government officials into American federal and state governments, growth of Latin American companies and industries in the United States, and progressive adoption of the Spanish language as one prevalent to American culture.

My critical analysis of my geographical imaginary of Latin America leaves me with some embarrassment and chagrin, as it should. But by identifying the role of American politics in my previous geographical imaginary, I have learned to disconnect that perspective from Latin American politics and Latin American agency. I envision a geographical imagination of Latin America to be one of respect, dignity, and political prowess as it may support the continued development of Latin American countries into autonomous and independent countries free of American intervention.

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Virtualia as Urbanity's Wild West

The unbounded-but-gated landscape of a new frontier

Anson Ching

This paper examines the relationship between planetary urbanization and planetary virtualization. It shows how urban living and place experience can no longer ignore the social interaction that occur simultaneously (and predominantly) in the virtual sphere, and what are the implications for such an understanding. The basic argument is that virtualization is the new push on the bounds of urbanity, much like suburbanization in the middle of the century beforehand, only the automobile's potential for radically shifting how we experience urban living is now outclass by the smart phone. What is already occurring, and what is more likely to exacerbate is the tendency for people to seclude themselves in denser and denser of exclusive relationships, filtered and desirably prejudiced, meaning a new affront on the already jeopardized sense of communal living in large cities. Finally, the paper suggests a possible ideal of how urban living ought to take form, but concedes that it is most likely too late to abort entering this century's brave new world.

Introduction

Year after year, the media buzzes over the latest livable city rankings. Much focus has been on entrepreneurial cities vying for titles and recognition, and cities with the prized combination of density, livability and sustainability are visibly at the forefront (Peck, Siemiatycki, & Wyly, 2014, pp. 387-389). However, the prestige of being deemed livable may only speak to built space instead of conjured place, instead of conduciveness to urban society. From liveable city rankings we may have a heuristic for a transit-walking lifestyle, and yet we cannot necessarily conflate such observations with meaningful human association and encountering. More insight must be made, as Harvey (2012) suggests, on how a city provides a living in urbanity that is "meaningful and playful ... conflictual and dialectal," and most importantly, open to "encounters" (p. x). I suggest that too much attention

has been focused on quantifiable indicators and design instead of studying the urban implications from the unseen without a screen—from the virtual sphere. Our cities may be healthier, more environmentally sound, and more cost-effective when we double the urban density (Bettencourt & West, 2013, p. 912). But does this matter if communities no longer exist on the streets, but rather, are channelled through virtual data streams? I aim to qualify this question by accounting for how the sprawl of virtualia, that is, the unbounded-but-gated places of the Internet—the virtual landscape shaped by filtered communicative channels such as social media services—affects modern urban society just as much as the sprawl of suburbia and gated communities.

In the first section of the paper, I examine the relationship between planetary urbanization and the planetary virtualization of socially networked

information and communications technologies; it is no longer possible to understand urban living and the experience of place without considering the social interaction that occurs simultaneously (and predominantly) in the virtual sphere. Next, I show how virtualization is the new challenge to the bounds of urbanity, much like the suburbanization of the twentieth century: the automobile's radical reconstruction of the experience of urban life has now been overtaken by the socio-spatial transformations of the ubiquitous smartphone. What is already occurring (and likely to accelerate) is a dangerous tendency for individuals to seclude themselves within dense yet gated relationships that are prejudicially defined by algorithmic filters for desires, preferences, and background—creating a new threat to the experience of communal living and learning in large cities. Finally, I suggest a possible ideal for how urban living ought to take form, but I concede that it may be too late to abort this century's brave new world of socio-spatial fragmentation.

Planetary Urbanization and Planetary Virtualization

Today, 80% of people in developed countries live in an urban agglomeration (Bettencourt & West, 2013, p. 912). Moreover, the majority of the planet's population is urban, a phenomenon Merrifield (2013) defines as "complete [and] planetary urbanization" (p. 910). Yet, the 21st century is marked not only by the global phenomenon of rapid urbanization. According to Zip, Parker, and Wyly (2013), we are also witnessing

another phenomenon unprecedented in history: the virtualization of the planet, with the proliferation and densification of dynamic networks in virtual space which transcend geography (p. 83). One aspect of this virtualization is a fundamental shift in our means of communication. Castells (2012) labels the current use of digital communication platforms as "mass self-communication," a "self-directed" and "self-selected" form of communication in which people direct their own messages, choose what messages to receive, and to which networks to be connected (pp. 6-7). There is also a shift in how we access information. Teilhard de Chardin's notion of the Noösphere (as cited in Thomas, 1956)—or the accumulation of all human thought, innovations, and learned behaviour—has nearly been completely spirited into the cloud. Indeed, 98% of the world's entire sum of recorded information has been digitized, though for Zip et al. (2013), what is even more important is that planetary urbanization and planetary virtualization are positively correlated: the greater the hierarchy in urban population, the greater penetration of social networking usage (pp. 83-84).

Henri Lefebvre's understanding of the "right to the city" assumes the backdrop of the Age of Urban Societies, since all societies are affected by urbanization catalyzed by industrialization (Schmid, 2012, pp. 43-46). I suggest that the city and talks of the right to the city now ought to take into account that the Age of Urban Societies is also simultaneously online; the world is now both urban and online. As a result, we can hardly discuss

the real without considering the virtual. Rainie and Wellman (2012) account for this with what they call the “Triple Revolution.” First, people are now able to project beyond dense groups into diverse and enlarged networks with more manoeuvrability; second, people are able to create their own information flow experiences, tailored to their needs; and third, mobiles and smartphones have allowed for us to be in constant connection and to be connected even in motion (pp. 11-12). The Internet is continuously present and with us, and we control its flows and meaning. One of the great benefits of this perpetual connection is that people no longer “walk—or sit—alone” (Rainie & Wellman, 2012, p. 94). In fact, Shirky (2010) hails the return of a “participatory culture,” where people are using their “cognitive surplus,” or free time, in far more participatory ways than in the times of one-way media technology—for despite how pathetic it may seem to devote hours into online games or sharing lolcat memes, it is nevertheless more participatory than sitting passively in front of the television (pp. 19-22). The former involves both consumption and production, while the latter solely involves consumption. Castells (2012), who is interested in power in social networks, is optimistic as well. He proposes that we finally have the “technological platform for the construction of the autonomy of the social actor ... [which is] why governments are afraid of the Internet” and its potential to reprogram communication networks for the subverting of power relations by “occupying the medium and creating the message” (pp. 7-9).

Yet, despite the wealth of information and human potential that modern information technology affords, we have largely ignored new vulnerabilities. Turkle (2011) suggests that though people may no longer walk/sit alone—as they are connected virtually—they are still alone, only they are “alone together” by being constantly committed to something on the other side of their screens (pp. 13-15). More relevant is McLuhan’s (1994) observation that new media of communication transform our messages, for it is the “medium that shapes and controls the scale and form of human association and action” (p. 9). Human association occurs within places, but much of the meaning of this has not only gone through translocation, but has also fundamentally permuted. We are witnessing a new radical shift for human association in place since the quakes from the unfolding of suburbia. This shift follows the new frontier: virtualia.

Unbounded-but-Gated

The current condition of the Internet is sprawl. In marketing, the Long Tail Effect explains how physical space prevented many products from reaching their consumer-base: with a limited quantity of store shelf space, there was no efficient way to cater to a consumer-base spread thinly across space (Anderson, 2010). The limits of space have since been obliterated by the transplantation of products into virtual space, so that not only do the top 100 albums get inventory space in an online vendor, but the next 100 000 do too as they are all sustained by minute yet relatively

adequate enough consumer bases and thus do not require expensive physical storage (Anderson, 2000). In the same way, real space, as a barrier for social relations and organizations, has also been virtually circumvented. Recall the first of the Triple Revolution that Rainie and Wellman (2012) identified, that individuals now project beyond dense groups into diverse and enlarged networks with absolute freedom in manoeuvrability. In our smartphones is the autonomy that no Ford could ever provide. It is the autonomy to ignore physical proximity even when there is physical proximity; it is freedom from being beholden to those who share real spaces with you—walking down a corridor, sitting on a park bench, or waiting in a lecture hall before class, the last places that had not been conquered by automobile culture.

Urbanites often feel a reduction in their individualism and compensate by joining organized groups to be with people with similar interests (Wirth, 1938, p. 22). This likely accelerates with virtual connectivity since the urbanite who is also the virtual-frontier-navigator can now join a multitude of communities effortlessly. While this may be an opportunity for a multiplication of concerted action towards many ideal causes, virtual places have pushed in all directions (Castells, 2012; Rainie & Wellman, 2012). There are no boundaries limiting where one may go. The smartphone can drive you to more places than the all-terrain SUV. The limitlessness of virtual space allows for human associations in space to come uncoiled, to be unbounded. This is key to consider because the potential for

anything is also the potential for contradiction and counter-productivity.

With uncoiled autonomy comes the potential for seclusion: one is able to easily avoid going to any place that is frequented by those one wishes to avoid—just as a consumer no longer has to settle for popular but not precisely compatible music when sifting through the limited options at Walmart or any other retailer. Choices—of products, informational experiences, and social ties—seemingly stretch out infinitely. Prior to witnessing the marvels of the Internet Age, Wirth (1938) proposed that civil society would progressively segment should densification of society increase, meaning both a gain in “freedom from personal and emotional controls of intimate groups” and a loss in the “sense of participation [that comes from] living in an integrated society” (pp. 12-13). For our contemporary world, it appears Wirth is right. Due to our cognitive expansion into the virtual frontier, “people have become increasingly networked as individuals, rather than embedded in groups” (Rainie & Wellman, 2012, pp. 6-7). Each person is connected, in a threaded or segmented way, to thousands of others, with each of the relationships uniquely paired based on mutual interests or preconditions filtered by prejudice. Indeed, “segmentation has become ubiquitous” (Zip et al., 2013, p. 84). And even as Rainie and Wellman (2012) see this new social era of weak ties as giving people “new ways to solve problems and [to] meet social needs” (p. 9), Wirth (1938) suggests that people also resort to taking “segmented

roles,” where they seek “acquaintances” as relationships of utility to be leveraged (p. 12).

There may be merit in more community engagement and time put into online social or group activity. Yet, if all of this is occurring in segmented form, it transforms our relationships into gated spaces. Just because there are real public spaces in suburban communities does not mean that people always congregate. Likewise, just because there is the potential to access the public sphere through virtual means for most people today (as opposed to when there was just television and radio access) does not mean everyone will choose to be widely engaged (Shirky, 2010, p. 189). Today, most of our relationships are gated in gathering points on the Internet or in real places mediated by online networking sites—like the use of LinkedIn to schedule an information interview at a café—such that people can now choose “their own information flow” and connect with people whom they screen prior to actually interacting with them (Rainie & Wellman, 2012, p. 12). In the past, we needed to “interact with almost all people to learn personal details about them,” while today and likely more so in the future, “the online aggregation and synthesis of information” of people will decide whether or not interaction is even necessary, perhaps even precluding the majority of our social interactions (Rainie & Wellman, 2012, p. 12). Serendipity and the curious street encounter may become a thing of the past. In the future, our heads-up displays will sift out the homeless, and perhaps, people who

look a certain way. This scenario is one that Rainie and Wellman (2012) predict: social networking sites will become more complex in how they allow people to “coordinate their lives” and find people and organizations that meet their needs (pp. 278-281). The world, to some people, would be ubiquitously blonde; instead of believing what we want to see, we would only have to believe what we actually see.

Urban Commonwealth Erodes

In *The Right to the City*, Lefebvre asserted the necessity to confront “the existential pain of a withering crisis of everyday life in the city” and to develop “an alternative urban life that is less alienated ... [and more] open to becoming, to [all kinds of] encounters, and to the perpetual pursuit of unknowable novelty” (Harvey, 2012, p. x). The crises that Harvey (2012) identifies are marginalization, police repression, lost idle youth etc., but the implications of moving into a society of unbounded-but-gated communities are quite similar. The new sprawling landscape of virtualia, filled with segmented or gated congregations, is just one more crisis from the influence of planetary virtualization. The 21st century’s virtual segregation, as a result of the interaction between urbanization and virtualization, is as much what Merrifield (2013) calls “the enemy of urbanization” as it is “the enemy of assemblies and encounter” (p. 915). Indeed, spatial segregation and the produced implicated relationships may even be considered “toxic”; Sardar (2010) labels them as the “reactor core of the dysfunc-

tions of the dominant paradigm" (p. 10). Gated communities, by nature of attracting similar minded residents into seclusion, promote paranoia and groupthink behaviour (Benjamin, 2012). Just as gated communities are the "antithesis of urbanism as a communal collective social existence" (Sardar, 2010, p. 9), so too are the myriad of gated congregations in an otherwise vast, sprawling expanse of virtuality populated by disconnected individuals. By being in closed networks with only the people one likes, there is limited chance to be challenged by those outside of one's accepted norms.

In contrast, true public spaces test our habitus and hexis, our "encultured senses and our bodily bearings or feel for the game", along with our personal norms (Wise, 2010, pp. 919-922). This constant challenge of differences in urban living is good. If we confine ourselves to gated communities, we do not use the public realm. Without true public places—spaces used by all simply because there are no restrictions and prejudices to usage, and since they are in prime locations for the crossing of people from all boroughs, districts, and alleys—we would erode the ability of societal participants to be beholden to one another. This is what Vancouver's ex-mayor Larry Beasley calls "commonwealth" (Hern, 2010, pp. 49-50). To attain a healthy urban scene, Merrifield (2013) suggests one ought to witness "proximity," where there is frequent "coming together" as the concentration of peoples is associated with the simultaneity of opinions—as opposed to alienation and disintegration (p. 915).

What is urban, then, is focused assembly in space which birth unexpected and unprejudiced encounters in space; that is, what is urban is to have commonwealth, whether in the real or virtual realm. Separation can only subvert this.

Thus, what makes a rightful urban society is not just simply access to assembly, and the promotion of assembly space, but the forcing of access to assembly. It is to load the dice, to stack the odds against segregation, so that promenades and surface seating are so central or convenient for people from all walks of life that they must use them and be forced to encounter, whether it be formation of association or simply cross-exposure. Social mixing in our urban spaces, in real and virtual places, should not just be for the sake of providing more social capital and resources, like what Rainie and Wellman (2012) enshrine. Rather, as Van Eijk (2013) suggests, we ought to desire interaction with diversity for the broadening of perceptions, horizons, and worldviews so that it would beautifully sculpt our urban relationships (p. 8). The aim is to preclude fragmentation of people from different classes, with different situated knowledge(s), beliefs, and interests—to mould a cohesive society by having variegated opinions in perpetual engagement and cross-pollination. Only then can we legitimize notions of place like Massey's (1994), for example, which was adopted in face of the time-space compression of globalization. For Massey, place is a process of perpetual meeting, a meeting place that is constantly morphing, and an intersection of people and ideas, many of which

may contradict or be in opposition, but will nevertheless at the very least be amongst one another (pp. 152-155). The urban and virtual places of urban space cannot simply be assemblages of segmented and self-insulated compartments, meshes of gated relationships determined by exclusionary and prejudiced networking logic.

Conclusion and More

In our current milieu of planetary urbanization and planetary virtualization, McLuhan (1994) is astute to suggest that the individual and social ramifications of any medium come from how our affairs are newly scaled (p.7). Shirky (2010) is also right to recognize how "big change isn't utopia," as "throwing off all constraints," like the constraints of real space, "won't lead us to a world of no constraints" (p. 162). Constraint does not mean being bounded in place, for, in my perspective, it is the unbounded-but-gated nature of virtual sprawl that constrains urban society and becomes toxic for urban living. Ideally, a world with no constraints would include a world that does not preclude public spaces in the spirit of Harvey and Lefebvre, and where individuals are open to the sporadic encounter without the option of filtering out the fearful for only the pleasurable (Harvey, 2012, p. x). After all, the next fearful encounter may be the next inspirational muse.

My call for public space that allows for social mixing is an ideal, much like Van Eijk's (2013), who calls for "a 'better' way of living together: more understanding, more interaction between groups,"

rather than just "more bridging [of] social capital" (p. 2). After all, discussion of the "right to the city" is a call to create the urban society of a "heart's desire" (Marcuse, 2012, pp. 33-37). When we consider the crises of urban society, we seek not only to address the demands of the deprived, but also to meet the aspirations of the discontented or alienated. What I advocate is that we demand a reallocation of societal meaning, energy, and commitment back into real public places, accounting for the sprawl of the virtual realm, where diverse perspectives are channeled into genuine exchange (or at least some exposure and mutual recognition). This is a normative ideal that ought to be sewn into the motley urban fabric of modern cities, though admittedly it is just an ideal. Like suburbia, the unlimited freedom that comes with the inherent limitlessness of the Internet means unlimited powers to virtually build high fences and personal castles. What is practical is to get more people to recognize that this freedom should not be confused as an embodiment of urban values, and that the participation in mass self-communication does not mean limit-free, filter-free, and prejudice-free human interaction and encounters. People of this new age of urbanism must recognize the dangerous similarities between suburbia and virtualia, the new frontier of socio-spatial isolation.

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Blaming the “Mainlander”

Re-centering racism in Vancouver and Hong Kong’s ‘foreign investment’ crisis

Allison O’Neil & Jane Shi

Vancouver and Hong Kong, two globalized cities with the world’s least affordable housing markets, have also been the site of a growing discourse of blame lobbied against Mainland Chinese foreign investment. In light of this significant parallel, we provide a historical account for how this discourse is constructed against localized, racialized notions of belonging and national identity. We then suggest that resisting xenophobia and racism is central to the fight against housing unaffordability and failing to acknowledge the scapegoating of Mainland Chinese foreign investment erases the deeply rooted histories of colonialism in both cities.

“Racism is mobilized through the ideology of nationalism so that those conceived as ‘foreigners’ are scapegoated as the cause of the nation’s problems and targeted for abuse” (Sharma, 2012).

Introduction

On June 24th, 2015, a newly formed group called “Vancouverites for Affordable Housing” took to the streets to demand the Canadian government for data about “speculation, foreign investment, and vacant homes”. For better or for worse, the Facebook page for the event omitted one dimension in the heated conversation on housing in Vancouver: the role of Mainland Chinese foreign investment and ownership of vacant homes in dismantling housing affordability. Meanwhile, a similar conversation on Mainland Chinese property investment in an even more unaffordable city, Hong Kong, has constituted the darker underbelly of 2014’s Umbrella Movement (Kuo, 2014). For over a decade leading up to the Movement, protesting Hong Kongers have been expressing

anger over parallel trading of everyday goods like baby milk powder on the part of Mainland shoppers, Mainlanders’ disorderly behaviour in public spaces as tourists, and their corrupt presence as wealthy property investors. Looking at the discourse of scapegoating in Vancouver and Hong Kong is vital because the influx of migrants from Mainland China in both spaces has played and continues to play a role in restructuring each city’s urban, geographic, and economic landscapes. In the world’s least affordable cities to live in and buy property, housing is commodified and a high concentration of foreign investment “can transform the traditionally non-traded good [...] into an exportable one” (Chao & Yu, 2015, p. 207-208; I. Young, 2015). While facts of Mainland Chinese migration in urban contexts of housing affordability cannot be assumed to be causing this lack of affordability, the vicious and xenophobic scapegoating of Mainland Chinese nonetheless shapes the conversation on foreign investment and the housing crisis in Vancouver

and Hong Kong. What are the historical underpinnings for this discourse of blame targeted at Mainland Chinese? What does the conversation in Hong Kong have to do with the one in Vancouver? By examining how nation-building, racism, and colonialism has shaped the social architecture of Vancouver and Hong Kong, this article hopes to understand the converging blame lobbied at Mainland Chinese foreign investors in its proper contexts.¹

Mainlanders in the Media

In both Vancouver and Hong Kong, the presence of Mainland Chinese property investment as a possible factor for driving up housing prices has been a source of heated discussion in news media on and off-line. For the past decade or so, major and minor news publications in both cities have invited various economic experts, global correspondents and everyday people to comment on the issue. While on the surface, such debates appear to be about the economics of housing affordability, discourse about Mainland Chinese money is also surrounded with disparaging and racializing tropes about who Mainland Chinese people are (such as their perceived lack of contribution to society and social misbehaviours), the dangers in the spread of Chinese wealth around the world, and a blatant lack of scrutiny

¹ We will be using the term “Mainland Chinese” to broadly refer to Chinese migrants and residents of the People’s Republic of China (PRC): that is, Chinese people who are not from Hong Kong. While the diversity of Chinese people living in and outside the ‘mainland’ is not captured in such a definition, it encapsulates the homogenization occurring in the issues at hand.

of other sources of foreign investment. For every news cycle about British Columbia’s real estate market, one might expect at least one article focusing exclusively on the influence of Mainland Chinese buyers. Recent examples in Vancouver include “Purchase of \$51M Vancouver mansion the latest example of wealthy Chinese buyers fuelling B.C. real estate boom” in *The National Post*, and “Real-estate exec on Chinese money: ‘There is a huge stake for a lot of local people in keeping this thing going’” in *The Province* (Cooper, 2015; J. L. Young, 2015). The framing of Mainland Chinese as a threat, as such, is as quotidian as the conversation on the housing crisis itself.

While Nathan Crompton of *The Mainlander*² has extensively critiqued the scapegoating of Chinese foreign investment in the context of Vancouver’s housing crisis, he does not zero in on how the conversation of foreign investment playing out in Hong Kong specifically scapegoats Mainland Chinese investors. Since 1949, the rise of a Hong Kong localist identity—defined against the Communist Party in the People’s Republic of China—has made space for similarly charged scapegoating of Mainland Chinese in both Vancouver and Hong Kong. From doxxing blog sites like “Spot the Mainlander”, to heavily funded and circulated ads in the Chinese-language, Hong Kong-based newspaper *Apple Daily* portraying Mainland Chinese as locusts, to Mainland Chinese tourists being physically attacked during protests against parallel trading, to anger directed at “Commie-loving Mainland-

² Publication name bears no relation to Mainland Chinese people.

ers” amid important critiques of the Hong Kong government, the conversation in Hong Kong appears even more heated and visible than it is in Vancouver (Baldwin & Ko, 2015; Eimer, 2012; Garrett, 2013).

Despite the strong representation of numerous competing views on the issue, most media does seem able to agree on one factor: the lack of accurate and reliable data. One study, published last year, identifies the dearth of scholarly material published on the economic effects of foreign buyers in housing markets, yet op-ed pieces have abounded on the subject since the late 1990s (Chao & Eden, 2015). In 2011, an op-ed piece published in *Real Estate Issues* on “Asian” (read: Chinese) investment in Vancouver’s housing market did cite the absence of concrete analysis on the pros and cons of foreign investment, but what is most striking about the piece is its repetitive reference to recent “Asian” migrants’ unwillingness to assimilate to local culture, or “establish roots” (McCarthy, 2011, p.40). Though only a single sample in a large body of emotionally charged, often ill-cited literature, this piece emblemizes that the perceived ‘problem’ of foreign investment in property goes far beyond the technical parameters of economic policy. Rather, such rhetoric serves to shield concern for the perceived threat Mainlanders pose to local notions of belonging and identity.

Interrogating the Language of Foreign Investment

Though Vancouver and Hong Kong present unique histories and realities in relation to housing affordability, race, foreign investment and migration, a common theoretical basis can be used to understand the processes of nation-building and colonialism in fuelling entitlement and scapegoating rhetoric. Indeed, even those contributing to some of this rhetoric have identified the flawed use of the terms “foreign” and “investment”. Ian Young, the Vancouver correspondent for the *South China Morning Post*, for example, criticized a report released by the British Columbia Real Estate Association for using “foreign occupancy as a substitute for foreign ownership” (I. Young, 2015). Young’s observation pinpoints the constructed nature of foreignness and how these constructions can be used to legitimate blame.

As Nandita Sharma, an activist scholar at the University of Hawai’i, observes, “borders do not affect everyone similarly” (2012, p. 322). According to a legal definition, foreignness is most readily associated with temporary or illegal immigrant status (Sharma, 2012, p.323). Yet, in both Hong Kong and Canada, policies have been instated that privilege the movement of Mainlanders considered to be causing problems across national borders. Since the mid-1980s, Canada’s efforts to attract foreign investment have been intensifying, most recently culminating in the advent of the Immigrant Investor Venture Capital pilot program in 2014 (Li, 2002). Under this

program, applicants with a net worth of at least CND \$10 million were eligible for permanent resident status ("Determine your eligibility - Immigrant Investor Venture Capital Pilot Program", 2015). This was a CND \$8.4 million increase from the previous Immigrant Investor Program in place since 2010 ("Canada Re-Opens Immigrant Investor Program", 2010). Since the handover of Hong Kong to the People's Republic of China in 1997, passage from the Mainland to Hong Kong has been made significantly easier for residents of certain Mainland cities. In 2003, the Individual Visit Scheme was introduced, and in 2007, the program was expanded to include close to fifty Mainland cities, facilitating the entry of more than 49 million Mainlanders by 2010 (Zheng & Yew, 2013). Although the movement of Mainlanders and their funds across borders has been quite legal (putting aside a discussion about how the money they are investing may have been earned), casual xenophobia and latent racism embedded in everyday interactions are still salient in the construction of Mainlanders as threats in Hong Kong and Vancouver.

Within nation-state borders, the construction of foreignness or strangeness invokes both resentment, and often, an unspoken acknowledgement of its necessity (Erni, 2012). In Vancouver and Hong Kong, the importance of foreign money and trade does not translate into an acceptance of foreign bodies, if these bodies are seen to be benefiting disproportionately from a society in which they are considered strangers. Similarly, Sharma attributes this phenom-

enon to "the overlaying of the idea of home onto nation", or in other words, the association of the kinds of people one accepts as belonging in their own family as being the same kinds of people who belong in their "homeland" as a whole (Sharma, 2012, p.323-324). Invoking the language of family here indicates the need for likeness between different members of a nation, and while likeness can refer to a number of different factors which constitute identity, conversations about blood ties are inevitably ones about race and ethnic heritage. This likeness is constructed through the telling of national stories and histories by a certain group of people who, in their telling, delineate who may call a place their home and who may not (Sharma, 2012, p.325).

National narratives are based in a "supposedly natural need for roots", and while they may include a mythical arrival to the land claimed as home, ongoing migration into and out of the "homeland" does not occupy an important position (if any position at all) in the continuously growing body of national stories (Sharma, 2012, p.324). This is despite the fact that migration continues to be a very real part of both Hong Kong and Canadian narratives. As Montsion observes, there were "295,930 Canadian citizens living in Hong Kong in 2011 and more than 180,000 households in Hong Kong with one or more family member who is a Canadian citizen" (2011, p.47). Further, an estimated 8.8% of Canadians were living abroad in 2011 (McCarthy, 2011, p.35).

A Brief History of Race and Property in Vancouver

Though Chinese diasporas and immigration to Canada cannot be conceived in a singular narrative, a theme across the history of anti-Chinese sentiment involves property-related scrutiny. While the vast expanse of territory we now call Canada was subjected to centuries of colonial projects by numerous global powers, white entitlement in British Columbia cannot rely on narratives of land-claims based on prior arrival. In fact, European and so-called "Oriental" settlers were vying for property ownership at the same time, beginning in the mid-nineteenth century (Stanley, 2011, p.53). From the outset of British settlement in the area, Chinese immigrants as "would-be property owners" constituted a threat to the demarcation of the land as "quintessentially white" (Sharma, 2012, p.325; Stanley, 2011, p.53). Understood in this light, the privileging of white "local heritage" through appeals to longevity are in fact unfounded, but such logic continues to be used to defend the entitlement of Vancouver's "settled" population (Brown, 2015; McCarthy, 2011, p.35).

In Vancouver specifically, the historical connection between race and property lends an ironic tone to current resentment of Chinese wealth and investment. From its formation in the 1880s as a place for (mostly male) Chinese workers to rest, Vancouver Chinatown was "defined as a space for undesirable neighborhood festering in unsanitary conditions" and was seen as a ghetto (Li & Li, 2011, p.8-9). China-

town's development over time mirrored the federal government's successive immigration policies designed to curb Chinese migration to Canada, most notably including the period of complete exclusion from 1923 to 1947 (Li & Li, 2011, p.21). The neighbourhood has faced potential destruction on numerous occasions, but has prevailed due to lobbying for its preservation by the Chinese Canadian community (Wai, 1998). Nonetheless, Chinatown continues to be a low-income area and is home to a high concentration of elderly Chinese.

Much of Vancouver's ethnic Chinese population is now concentrated in Richmond, a fairly affluent area that is home to a mostly middle- and upper-class demographic (Li & Li, 2011). The growth of Richmond in the 1980s and 1990s mirrors the growth of the Chinese middle class in Vancouver, which further brought about the ethnicization of wealth and development in that area. However, it is worth acknowledging Li and Li's observation that immigrants "born in the People's Republic of China account for 25 percent of the residents in Chinatown, but only 15 percent in Richmond; in contrast, Hong Kong-born immigrants make up 13 percent of the Richmond population and only two percent of the Chinatown population" (Li & Li, 2011, p.19). This apparent association of wealth with Hong Kong money (as opposed to PRC money, as is currently the case) leads us to yet another instance of the scrutinization of Chinese-owned property in Vancouver.

In more recent decades, disputes over the construction of 'monster

homes' in the Shaughnessy and Kerrisdale neighbourhoods of Vancouver has provided yet another example of the racialization of property issues. Specifically, wealthy Hong Kong immigrants arriving in the late 80s and 90s were seen to have "little regard for the traditional aesthetic qualities of these storied neighbourhoods" (Madokoro, 2011, p.17). This clash of aesthetic and cultural ideals between racialized Hong Kong immigrants and 'permanent, settled' white Vancouverites saw the emergence of "discomfort about displays of wealth and liberalism that were in excess of what conservative Canadians considered appropriate" (Madokoro, 2011, p.21-22). Here, we see a complete reversal of the basis upon which ethnic Chinese people were being discriminated against in Vancouver; while previously, they were associated with poverty and filth, they are now being accused of demonstrating too much wealth.

Now, as Vancouver turns to Mainland Chinese money to explain its affordability woes, it seems that the last century and a half of scrutinizing, blaming, and demonizing of Chinese property ownership has been conveniently forgotten, or explained away as the foreignness of recent immigrants from the Mainland is emphasized through their lack of commitment to 'Canadian values.'

Mainland China and the Emergence of Hong Kong Local Identity

While Hong Kong's colonial history is rooted in the construction of Chinese inferiority to European civility, the place-

ment of blame on Mainland Chinese money for inflated rent today cannot easily be conceived as 'racism', since, until the Communist revolution in 1949, most people who lived in Hong Kong also considered themselves to be Chinese. Indeed, the emergence of a widely shared, unique Hong Kong identity was the product of particular historical circumstances, and was defined in opposition to the more tumultuous years that the PRC experienced in the 1960s and 1970s (Carroll, 2007). Harkening back to Sharma, the production of this "story", or identity, can be seen as a key contributing factor in the ability to exclude certain groups from belonging, despite a lack of visible racial difference (Carroll, 2007, p.326).

Though multiple starting points for such a story could be considered appropriate, according to Cheung, a series of riots championed by the Hong Kong branch of the Chinese Communist Party demanding better working conditions and pay in the mid-1960s represents one significant shift in the construction of Hong Kong identity (Cheung, 2009). These riots later blossomed into a full-blown anti-British campaign in 1967, and in turn, inspired the colonial administration to enact a number of social reforms designed to reduce the administrative distance between the colonial government and the people (Carroll, 2007; Cheung, 2009). In conjunction with Mao Zedong's Cultural Revolution, which, ideologically-speaking, completely opposed the changes occurring in Hong Kong in the same year, a distinct and more ubiquitous attachment among

locals to Hong Kong emerged. Indeed, throughout the reforms, the “rhetoric of ‘citizenship’, of ‘community’ and ‘belonging’” was used as “anti-communist counter-propaganda” by the colonial administration, and the idea that Hong Kong constituted a safe “haven” and a “genuine home” in comparison to the agitated, unruly Mainland entered popular thought (Cheung, 2009, p.5-6).

Another important shift was the Tiananmen Square Massacre on June 4, 1989. While anti-PRC sentiment had remained prevalent among refugees who had fled to Hong Kong in the 1950s, younger generations had adopted a more hopeful attitude towards their impending reunion with the “mother-nation” (Carroll, 2007, p.191). The shocking brutality of state forces in Tiananmen effectively erased confidence that the handover held any promise, and further entrenched feelings of cultural difference from and incompatibility with the PRC. As Carroll succinctly puts it, the bloodshed “reminded many people that though they were ethnically Chinese, they did not identify with the Communist government of China” (2007, p.197). In 1997, Hong Kong’s sovereignty shifted officially from the United Kingdom back to China. According to Szeto, the handover and the years leading up to it had a psychological effect on Hong Kongers that contributed in important ways to a solidification of the identity that had been forming over the past several decades, but also served to shift perceptions of difference from the government to the people of the PRC (Szeto, 2006). Prior to the handover, Hong Kongers es-

tablished a sense of “economic superiority” vis-a-vis “Chinese colonizers” based on their greater ability to navigate capitalism. In the post-1997 world, however, “[places] in China that mainstream Hong Kong has been imagining as cultural and economic colonies are catching up and overtaking Hong Kong”. Because “China is Hong Kong’s new ‘colonizer’”, it is more politically dangerous to direct hostility towards the government, and as a result, demonization is directed toward the “Chinese other, the othered scapegoat” (Szeto, 2006, p.267). In this way, blame and resentment is effectively shifted from its historical roots in anti-government sentiment to a new base in “the oafish Mainlander” (Erni, 2012, p.78).

The present-day culmination of this long identity-making process is most visible in the Umbrella Movement, a series of pro-democracy protests beginning in September 2014. Though not the primary instigator of the movement, anti-Mainland sentiment is encapsulated in the broader discourses of democracy and economic justice that have led the charge, and has significantly influenced the tone of protests. Indeed, as a response to tens of millions of Mainlanders entering Hong Kong after the liberalization of China’s tourism policy since 2003, local Hong Kongers’ active protest culture has directed much of its anger towards Mainlanders in the years leading up to the Umbrella Movement (Garrett, 2013).

Conclusion

In the face of Vancouver and Hong Kong’s increasingly unaffordable hous-

ing markets, a long history of local identity-making largely premised on exclusion of 'foreigners', and more recent efforts to reinstate a singular national narrative in both cities, the wide acceptance of a discourse of blame is troubling for a number of reasons.

First, as valid as the anger against the PRC is throughout the Hong Kong people's struggle against undemocratic governance, an emphasis on localism at the expense of Mainland Chinese bodies cuts off the possibility for solidarity between Hong Kongers and those from the Mainland in fighting the housing affordability crisis. After all, Cantonese-speaking Mainland Chinese most certainly share cultural similarities with Cantonese-speakers in Hong Kong, and given the ubiquity of the housing crisis throughout Mainland China, Vancouver, and Hong Kong, neither mutual, one-sided antagonisms, nor finger-pointing appears to be a good solution.

Furthermore, it is important to question what purpose such blame serves. Blame itself need not be an empty tool, if pointed in a productive direction; for instance, it is worth considering the ways that blame might be constructively aimed towards states or systems, rather than a vaguely defined, over-homogenized group of people. If Canada's acceptance of foreign investment is in fact contributing significantly to Vancouver's housing affordability crisis, what needs to be examined then is the Canadian economic system as it relates to other nation-states. The same can be said of the Hong Kong government's relationship to the People's Republic of China.

Xenophobia has a long history in both Vancouver and Hong Kong, and attempts to remove the discussion of Mainland Chinese money from this context is to forget the violence of colonialism shaping the social fabric of each urban space. As much as Vancouver's rally on foreign capital prefers to sidestep the issue by simply demanding government data, ignoring the fact that racism has been central to the discussion on the housing crisis fails to shore up the conversation about Vancouver's need to become more affordable. Similarly in Hong Kong, to pretend that growing societal issues including the housing crisis can be resolved with the absence of Mainland Chinese bodies misses the mark on what it means to fight for justice. In this way, Vancouver needs to pay close attention to the conversation in Hong Kong: if Mainland Chinese can be so violently targeted, so can other racialized people in the name of understanding economic inequality.

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The radical bodies of Brukman

Performing worker cooperatives and the expanded reproduction of spaces of hope

Alejandro Lazzari

If each society produces a specific space according to its own characteristics, then the transcendence of the capitalist mode of production is also a spatial problem. Fortunately, the geographical problem of revolution is being tackled throughout the world by thousands of workers who have rejected capital's control and sought to create their own places of production under radically different social relations. This article will engage with this phenomenon and argue that 'embodied pluralities' possess the ability not only to create new and more embracing spatialities, but that doing so also entails the creation of new selves as well. And yet, precisely because the capitalist social division of labour remains untouched by these singular transformations, there are structural limits to these historical-geographic developments as workers continue to be determined by their own labour objectified in capital. By looking at the history of Brukman, a worker cooperative in Buenos Aires, Argentina formed in 2001, I will analyse to what degree these processes of revolutionary socio-spatial transformation produced new spatial relations as well as new -- subjectivities in the workers themselves. The article ends with a call to integrate space into revolutionary politics as a way to extend the field of radical possibilities.

Introduction

Contemporary economic crises illustrate both the destructive powers and historical limitations of the capitalist system. During its periodic plunges into crisis, the capitalist mode of production reveals its absurd rationale as excess capital stands alongside excess labourers. Unable to produce profitably, the engine of our material reproduction stalls and the production of use values ceases altogether. For the working class, these conditions signal a disruption and possible dissolution of their traditional modes of existence. It is in these critical times that people attempt to reassert their self-determination by creating new social arrangements for production, refusing to subject their lives to capital's valorization.

These challenges to the dominant mode of production do not occur in a spatial vacuum. As Lefebvre (1991) has shown, social spaces are not containers in which society unfolds. Rather, they are dynamic creations, propagating the social processes that produce and shape them. Like the commodity, social space is a "social hieroglyphic" (Marx, 1991, p. 167) that objectifies the social relations that produced it and gives them room to unfold. Given this conceptualization of social space, attempts to forge new social arrangements for production are simultaneously efforts to create new spaces with radically different social relations embodied and operating through them. As these spatial developments challenge capitalist spatiality, they are ripe with potential. They are, as David

Harvey (2002) proclaimed, 'spaces of hope.'

How do we create these spaces of hope? This article opens discussion on this crucial albeit neglected issue in the socialist agenda. Its objective is to synthesize Marxists ideas on the production of space with feminist ideas on the performance of space, demonstrating their revolutionary but limited potential in the form of worker cooperatives. This potential will be illustrated through a case study of the worker-appropriated and -expropriated Brukman, a textile factory in Buenos Aires, Argentina. As the social structure of Argentina was reconfigured by neoliberalism in the 1990s, much of the population faced a dissolution of their traditional modes of existence. Under these disruptive forces, individuals were forced to transform their identities, rearrange their responsibilities, and create inclusive spaces to regain stability within the social maelstrom.

Producing space: Spatializing Marx and the collective power of bodies

The production of space is a cornerstone of debate in the literature of human geography, within which Harvey's integration of Marxist political economy and the geographical imagination is a foundational work. Harvey (1978, 1982) demonstrates how, by revolutionizing its spatiality, capital assuages periodic crises and prolongs cyclic accumulation. Faced with overaccumulation in the economic sector producing commodities for immediate consumption (the "primary circuit of capital"), capital can be reallocated towards the production

of durable goods (the "secondary circuit of capital"). The built environments for production (e.g. factories, offices, roads, and airports) and consumption (e.g. houses and parks) each fall under the secondary circuit of capital. Investing excess capital in the production of the built environment has the potential for enhancing the production of surplus value, effectively circumventing the crisis of overaccumulation by economically and geographically prolonging capitalist expansion. This is critical in an economic crisis when excess capital has nowhere to valorize.

There exists, however, a danger in failing to grasp how capital's spatiality is contested. Harvey pioneered attempts to understand the movements of capital accumulation with spatial production, positing capital as a hegemonic producer of space. Granted, it would be of disservice to argue that Harvey saw no producer of space other than capital. Harvey's recent works (2002, 2010, 2012) reveal political support for people reclaiming space from capital in a 'historical-geographical revolution.' But how could people do this? What does this entail personally and socially?

Judith Butler (2011; see also Butler & Athanasiou, 2013) has recently begun to extrapolate her ideas on performance and performativity and introduce them into space and its production. She has drawn attention to how space can be (re)produced by a politically unified collective body, an 'embodied plurality,' actively disputing what a space's materiality is to be used for—something overlooked in Harvey's theory. In effect,

Butler is presenting the collective body as a spatially transformative force. Butler argues that the individuals who have been systematically disenfranchised and marginalized, both socially and spatially, can reassert their self-determination by challenging the dominant socio-spatial relations of power, thereby creating more inclusive spaces.

This act illustrates the limits of the established powers but it does not replace them. If the legitimacy of the existing socio-spatial power relations is contested and rejected, a vacuum of significance emerges. Creating a new space through collective struggle necessitates the simultaneous installation of new power relations. But if the initial decision to act by this plurality was conditioned by their state of marginality, then the production of a more embracing spatiality by way of new social relations must in turn form a new plurality. In its act of subversion, the negative power of the plurality negates itself. This suggests that the production of space cannot be disentangled from the production of new selves. The potential and limits of this claim will be investigated through the worker-led occupation and reconfiguration of a Buenos Aires factory called Brukman.

Neoliberalism in Argentina: Deindustrialization, precarity, and “empty space”

Entering the new millennium, Argentina's economy had endured three decades of neoliberal assault which decimated its national industry, the historical backbone of the coun-

try since the 1950s, through various measures that eliminated tariffs and opened the domestic market to foreign capital. Deindustrialization regressively impacted wages and the labour market. Despite gains in productivity, real salaries and aggregate industrial employment plummeted annually from 1991 through 2001. Unemployment reached 22 percent (Rebón & Saavedra, 2006, p. 15; Basualdo, 2010, p. 316-319) and the population below the state's poverty guidelines doubled over the decade, reaching 52 percent in 2002 (Rebón & Saavedra, 2006, p. 16)

Unemployment had become structural and losing one's source of income was perceived as a destruction of traditional modes of existence. As one worker justified the occupation of her factory: “This is our last opportunity to be workers; there is nothing outside of here for us, it's empty space” (as cited in Rebón & Saavedra, 2006, p. 18)

Brukman and the formation of the plurality

Located in Buenos Aires, Brukman began as a family business specializing in textile manufacturing in the 1950s. By 1995, feeling the pressures of foreign competition, it sought to stay afloat by severely cutting labour costs. From September 2001, the owners were paying only two pesos of the 100 they were required to provide. By late November they had stopped the payment of wages altogether, affecting the 114 workers that were employed, a majority of whom were women.

On December 18, 2001, a strike was staged in response to months of unpaid wages. The owners promised to return with money by the end of the day but instead, permanently left the premises. Matilde Adorno, a worker at Brukman who became the leading spokesperson for the factory during the struggle, recounts how "at 3:00pm they hadn't come back. At 4:00pm they still hadn't come. At 7:30pm I said, 'Well, I can't stay any longer'" (Lavaca, 2007, p. 68-69). The following morning, to the surprise of Adorno and other coworkers upon arrival, a worker who had stayed the night was outside asking everyone who came to work whether they wanted to be part of the occupation. All 54 agreeing occupants were floor-level workers.

As explained by Butler, the revolutionary potential of an embodied plurality hinges on the capacity of its members to coalesce around a small set of shared experiences of oppression. Because upper levels of the labour hierarchy did not participate in the occupation, the Brukman plurality could unite around identical relations to production and the employers (Wyczkier, 2009, p. 236-238). The collective was further reinforced by the virtually homogenous demographic of the occupying labourers. As most of them were older women with children, these worker-mothers could easily relate to one another. They all knew what it was like to see their children struggle and shared the pain of not seeing their families due to the permanent occupation. In this respect, the Brukman plurality could unite and proceed with their efforts.

Uneven geographical development of the occupation and the negative power of the plurality

The plurality's conception should not be mistaken for a Marxist movement. Initially, conflict was used as a means of making their employer comply with their contractual obligations. As Adorno noted, they wanted "to get paid, that's all" (as cited in Lavaca, 2007, p. 71). The movement did not begin by seeking emancipation from capital's grasp, but rather to maintain its traditional mode of existence.

This initial non-politicization of the "occupation" was reflected in their relation to the factory's space. The takeover was perceived by its participants as an illegal act. Despite having been treated illegally by their employer, workers saw themselves as breaking the law. This ironic sense of illegality permeated their engagement with the factory's space as they sought to maintain its operation. During the first weeks, they believed "the police would come," so they decided that they "shouldn't touch anything" (as cited in Lavaca, 2007, p. 87). Their actions continued to acknowledge the private property of their estranged employers.

The physical process of the occupation possessed an uneven geographical development marked by the incomplete participation of the labour force. For instance, though it would be acceptable to occupy the workshop floor, sales and administrative spaces were left untouched and even barricaded (Fernández, 2006, p. 195). Spaces where workers could freely enter and leave prior to the occu-

pation appeared more legitimate to call 'their own,' while those that were restricted from them were still experienced as inaccessible.

In this regard, the occupation was more than a transfer of ownership seeing how forbidden spaces had to be reimagined. The plurality had to move beyond a purely antithetical relation to the existing socio-spatial relations of power and actually transcend them. It needed to create a new social hieroglyphic of the factory's space by destroying the old one. Only through this process of creative destruction could the forbidden spaces be reappropriated and the marginality of the workers erased. The challenge was no longer a corporeal task but one that tested their radical creativity.

One example of how this process of resignification was confronted was the reconfiguration of the administrative areas to community spaces. Throughout the two year illegal occupation, the workers were aided by the community's generosity (as cited in Lavaca, 2007, p. 85-101), at times offered so much food they could not store it (Rebón, 2007, p. 103-06). Hoping to return the favour, the Brukman plurality turned office spaces into amenities for the neighbourhood. Even after legal expropriation in 2003, many of these services continued to function. As Lefebvre theorized, new social relations produce new spaces.

Organization of social labour along non-capitalist lines and the self-negation of the plurality

The reconfiguration of production under non-capitalist relations at Bruk-

man was a complex and protracted process that began in January 2002 when Portsaid, a women's clothing shop, placed an order for shorts. The textile cooperative produces upon direct orders from its clients, only after production standards and deadlines are democratically decided through assemblies. Net earnings are distributed equally unless a worker is going through a financially burdensome situation like a graduation or family emergency. Indeed, a real contempt for coercive and authoritative figures had developed in the labourers with a common (playful) insult being: "who are you, my boss?" (as cited in Lavaca, 2007, p. 81).

By negating their foundational conditions as wage-labourers, the plurality began to erode the concrete necessities for its existence, thereby negating itself. The content of this self-negation was the production of new subjectivities. As production was being successfully conducted without the employer's tyrannical rule, these shop-level workers began to recognize the power they always possessed to organize and execute social labour. Since they were now responsible for the appropriation and distribution of value, the plurality could calculate how much time it took to reproduce their wage and quantify their rates of exploitation. Reminiscing on their politicization, Adorno says that they "learned to have ideals – we learned that everyone deserves what they earn. We were really exploited in there," she continues, "especially towards the end" (as cited in Lavaca, 2007, p. 72). In this way, the plurality reproduced itself in a higher form,

fully conscious of its political action and its general importance in the struggle against capital.

Deromanticizing Brukman: Undoing the plurality through structural limitations

It is important not to overstate worker cooperatives like Brukman. Much like Trotsky (1970) argued in regard to romanticized views of the Russian Revolution, we must take similar precautions in our analysis of worker cooperatives. As theoreticians, we are to reproduce in thought the emerging contradictions of the radical situation. Failure to do so would leave nascent developments of a similar kind in uncertainty and isolation, when the goal should be of solidarity and mutual reinforcement between these alternative movements.

Although Brukman stands as proof that production is possible around a different social basis, it has never been able to completely sever its ties from capitalist relations. This is not just because the factory owes money to its previous owners and to the banks (Heller, 2014), or even because skyrocketing land values are creating gentrifying pressures (Argentina IndyMedia, 2015a, 2015b), for these are merely concrete manifestations of a more profound issue. This issue is that, even when the social relations of production have been reconfigured within its walls, Brukman must still operate under a capitalist social division of labour and, as such, produce commodities. In other words, Brukman's participation in the process of social metabolism – its social relation – continues to be deter-

mined by the movement of commodities, forcing the embodied plurality to alienate its consciousness in the fetishistic powers of capital.

This is the pervasive nature of the capitalist mode of production. It is an organic whole, with all of its parts interconnected and codependant, making it impossible to revolutionary by simply focusing on one singular aspect. As Brukman's social relation continues to be in jeopardy, it has been forced to enter credit relations to operate in a highly competitive market. This entry into the credit market has had a dialectical impact on Brukman, for even if it has allowed it to stay afloat and continue to produce commodities, this has come at the expense of a renewed necessity to produce surplus value to pay back the interest on their loans. The renewed requirement to produce surplus value begins to erode the reorganization of social labour within the factory as the hierarchical structures that were despised by these workers are gradually reinstated. This has undercut the plurality's radical socio-spatial potential, weakened its capacity to unite by pitting individuals against each other, and made them vulnerable to external pressures like gentrification. In short, the plurality was undone because even when it was initially able to expel capital from its walls, this exploitative social relation still found ways to ooze back through the cracks.

An expanded reproduction of spaces of hope

At the beginning of this article, I made a comment on the socialist agen-

da and its lack of spatial dimension to which I have several responses. First, it is clear that the revolutionary construction of a new society will require a new space to unfold. Any movement that progressively challenges the spatiality produced and necessitated by capital should be welcomed with open arms. Whether this is in the form of worker cooperatives like Brukman or in anti-gentrification groups and protests in the Downtown East Side here in Vancouver, these should each be seen as small steps towards the creation of a classless society. Understanding the spatial dimension of capital can only reinvigorate the drive behind anti-capitalist struggles by highlighting new dimensions through which to carry the project forward.

If one thing is salient in this analysis, it is the transformative power of spatial reconstruction on those individuals that are creating it. We cannot separate the question of what space we want to create from its complement: “who do we want to be as people?” The necessity to understand the dialectical implications of spatial transformation upon its produces is critical in solving the spatial problem of revolution. In Brukman, this problem was tackled as new social relations were forged between the workers and the community. The result was an egalitarian network of social relations manifested as more embrace spaces, as well as a necessary use value for any radical social transformation: hope.

The structural limits of Brukman, however, must be recognized. These emerged not from the revolutionary subjectivities that constituted the embodied

plurality but rather from the objective imperative produced by capital as the primary social metabolic force. Despite the elimination of waged-labour, workers at Brukman continued to reproduce their alienation by producing an object that confronted them as something alien and hostile which determined them. This merely illustrated the organic nature of capital and the impossibility to abandon it selectively or even partially transcend it.

This is not meant to be a deterrent but rather a point of reflection for workers, activists, and academics alike. Although these movements in themselves are not sufficient to bring about a new form of social organization, what should be exciting for the Left is that they are occurring side by side with the accumulation and devaluation of capital. As Brukman continues to struggle, so have hundreds of other worker-appropriated factories around the world. The current crisis in Europe has fostered the emergence of alternative ways of living and producing in Greece (Henley, 2015), Italy (Hollender, 2011), Spain (VoxEurop, 2012), and the UK (Brown, 2014), among others. This expanded reproduction of spaces of hope radically alters the usual argument about the messianic rise of a united working class and necessarily breaks with a teleological understanding of social change where socialism comes after capitalist and never in the now. This latter view is antithetical to the geographical imagination and again confirms the revolutionary importance of uneven geographical development. Capital’s hegemony has holes, and, in-

creasingly, light is squeezing and burning through them.

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Deepening Dependence

The Weaknesses and Limitations of Cambodia's Garment Industry

Tess Cohen

This paper examines the rapid growth of the garment industry in Cambodia and its widespread effects on the Cambodian economy and society. Using the dependency theory, it will seek to emphasise the complexity of Cambodia's industry, due to its focus on the production of lowest value added products, and its limited potential for upward mobility, as well as its deepening reliance on external forces. By drawing on the dependency theory to examine the role of foreign influence in Cambodia and the subsequent harmful effects on society, this paper will highlight how changes in foreign demands have impacted the quality of conditions. In particular, it will demonstrate the poor labour conditions and low wages that Cambodian garment workers experience in the emerging quest for continued foreign investment. Although initially considered a socially responsible industry due to a US trade agreement, the growing demand for low cost-high productivity labour has influenced the labour conditions, and led to their decline. Therefore, this paper highlights the sheer power and influence of external forces on the Cambodian garment industry, and questions the successful longterm growth of the sector.

The rapid development of Cambodia's garment industry and its desire to join a competitive market has had widespread, complex effects on the Cambodian economy and society. From its inception, the industry has relied heavily on foreign investment and markets, the most notable factor being the 1999 US-Cambodia Trade Agreement on Textiles and Apparel (TATA) (Hughes & Un, 2011). To encourage foreign investment, TATA purposefully included labour standards within the agreement with the hope of improving economic and social conditions for Cambodians, while allowing Cambodia to establish itself as a hotspot for socially responsible production. As such, TATA sought to ensure sensitivity to local issues such as poor labour conditions and wealth inequality. Despite these attempts, there has been

growing social unrest due to wage disputes and labour standards, increasingly damaging investment interest and creating uncertainty around the future of the industry. I argue that although the rapid growth of Cambodia's garment industry has improved the economy through GDP growth, the high levels of dependency on foreign investment and markets limit the prospects of long-term growth of the industry. By using dependency theory to examine the role of foreign influence, I demonstrate how poor labour conditions, low wages, and underrepresentation of women have resulted from the quest for foreign investment.

Dependency theory emerged in parallel with other development theories in the 1950s and focused mainly on Latin America, with significant theorists including Celso Furtado and Fernando

Cardoso. Despite its Latin American origins, the theory can be applied to Cambodia as it examines economies that were built as a consequence of the international market expansion of the United States and Europe. The Cambodian garment industry emerged as a result of increasing demands from Western societies for cheaper clothes, which required lower production costs. The theory examines the relationship between central and peripheral countries, with countries at the centre “achieving self-sustaining economic growth while others [the periphery] grow only as a reflection of changes in the dominant countries” (Hartwick & Peet, 2009, p. 166). Meaning, peripheral countries lose any potential profit to central countries, which leads to polarisation and inequality (Hartwick & Peet, 2009). Crucially, dependency theory highlights how wealth moves easily to central countries, yet peripheral countries are bound by the constant need for low cost labour, denoting the “immobility of labour” within the capitalist system (p.171). The theory notes how peripheral countries mainly export primary commodities such as raw materials and cheap minerals, while manufacturing occurs in central countries. Consequentially, peripheral countries miss out on the “value added” aspect of the product. This term is used for the ‘extra’ value gained from a product after it has been manufactured, implying that the manufactured product will always cost more than the commodity. This means that central countries, and not the peripheral countries that export raw materials, are able to capture

the additional wealth created through manufacturing (Whitehead, 2007). However, Cambodia’s garment industry complicates the notion of “value added” as it imports raw materials and exports basic garments. Therefore, Cambodia differentiates itself from other peripheral countries by not exporting raw materials. Despite this difference, it is unable to capture the social, economic and political benefits normally associated with countries that are involved in the manufacturing, and remains dependent on foreign investment and markets much like other peripheral countries.

Origins of Cambodia’s Garment Industry

The origins of Cambodia’s dependence on foreign markets emerged with the 1999 US-Cambodia trade agreement, which was crucial in the establishment of the Cambodian garment industry and its integration into the world market. To maintain US trade preferences, Cambodia provided high labour standards, distinguishing its garment industry from neighbouring competitors, subsequently allowing wider access to global markets. The trade agreement was facilitated by the involvement of the International Labour Organisation (ILO), which ensured high standards were met through regular monitoring. Furthermore, the creation of the Better Factories Cambodia program in 2001 provided independent monitoring and allowed access to “niche markets due to socially responsible production” (Berik & van der Meulen Rodgers, 2008, p. 78). As such, Cambodia’s formation and

growth can be attributed to its attempts to distinguish itself from its competing neighbours through improved labour standards. Thus, the presence of the ILO and the US agreement demonstrate how Cambodia's manufacturing industry was formed largely due to external forces that helped to provide legitimacy and market access. However, whilst the sector grew rapidly, the political system remained "very much in infancy", creating internal instability, increasing external dependence and limiting possibilities for independent expansion (Hill & Menon, 2013, p. 47). Cambodia's garment industry did not follow a traditional path, as its rapid growth came almost immediately after its establishment, making its future success decidedly unknown. While its economic effects are clear, the social and political repercussions from the industry have created numerous complex internal issues.

The impact of the garment industry on the Cambodian economy is substantial due to its significant input to Cambodia's GDP and the large numbers of direct and indirect jobs it creates. The garment industry has formed on the outskirts of the capital, Phnom Penh, creating employment opportunities for young women to move from rural areas to the urban core. Estimates suggest that the sector provides 700,000 direct and indirect jobs, with 92.2 percent of these being held by women (Hughes & Un, 2011). This integration of women into the workforce has played a crucial part in facilitating the low cost production, as women are underrepresented within the workforce and hold an unequal position

within society. As such, factory workers have exploited them, creating a cheaper, more docile labour force, reproducing the subordination that women face within society and accentuating the gendered aspect of the garment industry, in particular the inequalities it exacerbates.

While the industry generates income, potentially reducing poverty in metropolitan areas and increasing remittances sent to rural areas, economic growth and development continue to be concentrated in Phnom Penh, creating distinct regional inequalities (Natsuda, Goto, & Thoburn, 2010). While the industry has intensified income inequalities between rural and urban areas, Cambodia as a whole remains an impoverished society with weak institutions, poor access to health care and education, and a continued dependency on foreign aid (Central Intelligence Agency, 2014). Nonetheless, the industry remains crucial to the economy as it accounts for 70 percent of Cambodia's exports, which was approximately a third of all export earnings in 2013 (Palatino, 2014). However, the majority of the wealth generated remains in the hands of a few, often foreign beneficiaries, illustrating the centralisation and concentration of capital that the dependency theory suggests.

Reliance on Foreign Investment

Cambodia's inability to hold capital is deepened by its reliance on imported raw materials to manufacture basic garments as well as their continued need for foreign investment. These requirements have made Cambodia's

garment industry unique, as it uses the imported raw materials to produce basic garments using the “Cut, Make and Trim” model, highlighting how the industry is built on the production of the lowest “value added” product (Natsuda et al., 2010). The industry’s reliance on foreign supplies makes it vulnerable to external forces such as fluctuations in the world market price of goods. Notably, Cambodia’s high rate of foreign ownership, 93 percent, reflects Cambodia’s massive dependency on foreign investment and thus its necessity to remain economically desirable (Ear, 2013). This necessity requires that production and labour costs remain competitive and keep up with foreign demands resonating with dependency theory’s notion of the “immobility of labour”. Workers are static and factories can move elsewhere if costs exceed their demands, meaning that the dependency is deepened by Cambodia’s reliance on foreign investment to grow economically. Additionally, the main source of economic growth is the United States with “roughly 70 percent of exports destined for the US market” (Arnold & Han Shih, 2010, p. 402). This heavy reliance leaves it vulnerable to major economic shocks such as the 2008 global economic recession (Hill & Menon, 2013). In the first quarter of 2009, garment exports fell by 26 percent, with 50 factories closing and 60,000 workers laid off due to a drop in demand from Europe and the U.S. (Arnold & Han Shih, 2010). Therefore, Cambodia’s lack of diversification of both buyers and production is a key weakness of the industry, as it deepens the dependency

on foreign investment and the industry for wealth generation and job provision.

The origins of foreign investment in Cambodia’s garment industry were driven by Cambodia’s decision to support socially responsible production, which primarily acknowledged the importance of good labour conditions. Cambodia sought to uphold the “core labour standards” of the ILO and ratified the 1997 Labour Code to ensure improved working conditions in factories (Berik & Van der Meulen Rodgers, 2008, p. 60). As such, Cambodia became dependent on the global image view that they provided socially responsible production to garner international investment. However, since the official end of the US-Cambodia trade agreement in 2008, there has been a growth in short-term labour and fixed duration contracts (FDCs), particularly since the recession. As a result, Cambodia is increasingly converging with the rest of Asia’s manufacturing treatment, despite widespread perceptions that it is an exception to the low labour standards and informalisation of labour (Arnold & Han Shih, 2010). With these changing demands, Cambodia’s global image has also altered, demonstrating their sheer dependency on foreign investment at all costs, rather than a reputable global image, as well as the far-reaching impacts of dependency on employment security and working conditions.

Unionisation and Poor Working Conditions

Cambodia’s desire to maintain foreign investment has affected the job

security of workers, with the growth of FDCs paralleled with the growing threat of strikes. Workers increasingly complain about this employment insecurity, demanding higher wages and improved working conditions (Arnold & Han Shih, 2010). Trade unions play a crucial role in ensuring that labour standards are met as they provide a voice for workers, with Cambodian law allowing for “freedom of association and the right to organize” (Kolben, 2004, p. 84). Since the ratification of the ILO core values and the focus on worker agency, there has been a proliferation of unions, although many remain underfunded and weak unless they have political support (Arnold & Han Shih, 2010). Nevertheless, unionisation is increasingly prevalent despite their underfunded nature, which represents a growing threat to investors, as unions often increase costs through higher wages and more benefits. Unions therefore threaten the existing capitalist structure, which allows for continued exploitation of workers, with few repercussions for those in a position of wealth. Thus, the increasing limitations on unionisation by factories and government stem from the desire to retain foreign investment, highlighting the difficulty of being simultaneously socially responsible and economically productive within the current capitalist system.

The crucial role of unions is reflected in the recent protests and strikes, which have been organised as workers attempt to increase the minimum wage. Through these actions, employees have “won a series of increases...from \$80 a month in May 2013 to \$128 a month in

January 2014” (Kim, 2015). Despite the apparent success of unions, the agreed wages still fall short of the governmental estimate for living wage calculation, which lies between \$157 and \$177 a month (Kim, 2015). The low wages highlight the crux of the problem within the garment industry. There is a lack of political will to improve social standards due to economic incentives to limit the costs expended within Cambodia. Cambodia’s inability to uphold and protect their freedom of association laws has come at a significant price with numerous worker uprisings (Kim, 2015). The demands not only focus on higher wages, but call for improved working conditions and the recognition that major foreign firms are amassing more than enough profit to lift these workers out of poverty, showing the complexities of the workers fight (Palatino, 2014). The fallout from these protests demonstrates the inadequacies of Cambodia’s garment sector, as not only do workers receive less than a living wage, but they also run high risks protesting for their social, political and economic rights. While Cambodia’s garment industry fails to provide for its workers, the emergence of violent protests has negatively impacted foreign interest, emphasising the long-term damage that industry instability has, as well as the country’s dependence on the workers and investors alike.

Cambodia’s failure to provide for its workers is further reflected in their poor working conditions, which affects the idealistic global view of the sector. The working conditions are worsened by the lack of mechanisms in place for workers

to dispute the conditions without losing their jobs (Human Rights Watch, 2015). Notably, there was a sequence of mass fainting incidents in 2014 with more than 200 workers fainting at three factories (Aljazeera, 2014). These incidents resulted from poor ventilation, the use of harmful chemicals (without appropriate safety protocol), tainted food, and were worsened by the forced overtime that workers experience to retain their jobs (Human Rights Watch, 2015). These poor working conditions are detrimental to human health and highlight the far-reaching effects of remaining competitive in the pursuit of investment, as well as the sheer exploitation which workers face daily in the quest for capital. As investors seek to offset the repercussions of low productivity and higher costs, they actively discriminate against workers, reducing their ability to openly voice their concerns. Cambodia's garment industry is increasingly failing to uphold international conventions that it previously ratified such as ILO conventions on reasonable working hours, non-discrimination and living wage to name a few, emphasising how the industry has taken steps backwards as investment plateaus and costs increase.

Feminisation of the Garment Industry

This lack of progression is reflected in the numerous social issues that female workers face within the garment industry such as their lack of opportunities to voice their difficulties. Most union leaders are men, which perpetuates their silence, despite the fact that the industry is predominantly female. Notably, female

factory workers struggle to gain traction on issues such as reproductive health, maternity leave and workplace hygiene all of which cannot be comprehended by men (Danaparamita & Odom, 2016). This gendered divide is reflected in a 2015 report by the ILO and Better Factories Cambodia, which notes that 50 of the factories monitored engaged in different forms of gender discrimination, including termination based on sex and against pregnant workers, despite the fact that the industry ratified protection of these rights (Danaparamita & Odom, 2016). The lack of female voice within the unions and at the discussion table hinders the ability to overrule and change these structural issues, which demonstrates that inequality exists within the already exploited and marginalised workforce (Danaparamita & Odom, 2016). While women are active at the grassroots level through demonstrations, the fact that leadership positions are primarily held by men means that wage increase demands are prioritised rather than social issues. The failure to uphold women's rights, even within an industry that is predominantly female, demonstrates the need to change cultural perceptions of the opportunities and roles available for men and women, which is reflected in the necessity that unions advocate for both male and female rights (Danaparamita & Odom, 2016). Cambodia therefore highlights the complexity of simultaneously retaining foreign investment, high levels of productivity, and good working conditions across gender.

Better Factories Cambodia Program

Cambodia's garment industry origins are clearly related to offering higher labour standards than other manufacturing countries, which can be seen in the creation of the Better Factories Cambodia program that sought to ensure compliance to international labour laws, and in turn reduce endemic poverty issues. However, the failure of the program to prevent these labour issues and mitigate internal inequality emphasises how the industry's global image has changed since its inception, with its primary focus being foreign investment rather than socially responsible production (Merk, 2012). Crucially, the program faces several structural issues including its inability to enforce changes and monitor factories that solely produce for the domestic market, allowing for monitored firms to subcontract aspects of production. With eleven factories that supply international apparel brands reporting that they subcontract in 2014, it is clear that management of Cambodia's garment industry is complex (Human Rights Watch, 2015). Within subcontracted factories it is harder to unionise, as owners can suspend operations easily, leaving workers with the choice of fighting for their rights or being exploited for labour (Human Rights Watch, 2015). Subcontracting thus undermines the very purpose of the program and demonstrates the Cambodian state's desire to minimise costs and maximise profits, and its move away from socially responsible production. The involvement of international investors in perpetuating this problem highlights the effects of foreign investment on the

Cambodian population, underlining how peripheral countries lose their surplus to central countries (Hartwick & Peet, 2009, p. 169). Peripheral countries therefore not only face economic exploitation but also social and political exploitation to ensure central countries benefit as much as possible. Better Factories Cambodia and the ILO demonstrate the difficulties of preventing labour violations as Cambodia continues to pursue foreign investment. Their success is dependent on the willingness of investors and the state alike to embrace their institutions, yet the real losers are the workers, whose rights fail to be protected despite the façade that institutions, such as the ILO and Better Factories Cambodia, exist for their benefit.

Conclusion

Ultimately, Cambodia's garment industry shows few attempts to escape the constant involvement of foreign firms and projects. The actors within the industry are wide ranging and include foreign investors such as apparel firms, subcontracted domestic factories and the state, facilitating the existence of the industry and the workers themselves. While there is an international awareness of the female exploitation, the poor health conditions and the unbelievably low wages that exist, there is a lack of will to solve these issues. Therefore, it could be suggested that the notion of dependency goes both ways. Although Cambodia is dependent on foreign investment, foreign investors are dependent on low cost labour and high productivity that Cambodia cur-

rently provides. Cambodia, therefore, faces a difficult fight to become both as economically productive and socially conscious as it originally set out to be. Cambodia's key weakness at the moment is its lack of diversification of buyers and in addition, the emergence of disputes, which reduce the desirability of the industry, depicting a potential limitation for long-term growth. Cambodia's dependency is deepened by the power of the centre and the mobility of capital, which handcuff Cambodia in acting solely for the benefit of foreign investment, thus preventing autonomous forms of economic development.

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Editor Biographies

Editor-in-Chief Emma Kansiz

I am a fourth year human geography major with a passion for rural geography, *Twin Peaks* and pick up trucks. My goal is to visit all 50 states and write a non-fiction book in the process. I'm moving to the Rocky Mountains this summer after graduation to unite my passion for both the wilderness and meeting new people.

VP Academic Matthew Chung

I'm Matthew and I'm a fourth year human geography major with a keen interest in urban and migration geography, as well as the geography of Asia. After two years of editing *Trail Six*, I found myself with the unique opportunity to play a leading role in organizing the publication this year. While it has not always been smooth sailing, working on *Trail Six* has been a highly rewarding experience. It has connected me to amazing students and faculty members, while giving me the chance to contribute to the intellectual life of the geography community. When not working or procrastinating, I like to read novels, take long walks, and snap photos.

Layout & Design Lexine Mackenzie

Lexine is a second-year prospective Human Geography major with a particular interest in urban geographies. She draws inspiration daily from her lived experiences in the beautiful cities of Singapore, Hong Kong, Los Angeles, & Vancouver and hopes to create a rich academic counterpart to that lived knowledge over her years of study at UBC. In spare hours, she enjoys tasting, making, and learning about food and coffee.

Lexine worked with author Emilia Oscilowicz.

Editor Pilar Garcia

Fourth year Geography major from El Salvador, doing 'Environment and Sustainability' track with a minor in Economics. I lived in Amsterdam all of last year and this year after I graduate I am moving to Melbourne to study Environmental Law. I am passionate about promoting sustainability and am committed to defending the environment from further harm.

Pilar worked with author Tess Cohen.

Editor Cherry Hang

I'm a fifth year Human Geography student, originally from the Comox Valley on Vancouver Island. I love all things green, like rich forests, key lime pie, and green tea, as well as all things soft, like big kittens, thick blankets, and cake. I try to spend as much time as possible out in BC's beautiful trails.

Cherry worked with author Hyunsoo Kanyamuna.

Editor Sophie Lee

Sophie Lee is a Geography (Environment & Sustainability) major and French minor. She has lived practically her whole life in Vancouver, but loves to travel and hopes one day to visit the Sahara Desert, hike the Inca trail to Machu Picchu, and see a real live crocodile (not necessarily in that order).

Sophie worked with author Anson Ching.

Editor William Tham Wai Liang

William Tham Wai Liang is currently the creative non-fiction editor of the *Ricepaper* magazine, the author of several short stories which have been published by the Malaysian independent publisher Fixi Novo, and co-author of two academic papers on the prevalence of dengue.

William worked with author Connor Smith.

Editor Donna Liu

Donna Liu is 3rd year student pursuing a Bachelor's degree in Environment and Sustainability and a Masters of Management in Business. She is also interested in integrating different art mediums with geographical and social visualizations.

Donna worked with author Mana Hashimoto.

Editor Tiffany Loh

Coming from the sunny island of Singapore 7971 miles away, it is a dream come true to pursue my Geography degree right here, in a city embedded in the very realms of nature. Rain or shine, I really enjoy the outdoor life very much, especially paddling down the waters of False Creek with my wonderful Dragonboat family here – UBC Thunder.

Tiffany worked with author Hyunsoo Kanyamuna.

Editor Rachel Loo

Rachel is a third year human geography and music double major and is interested in cultural and social geographies. In her spare time she enjoys hiking, backpacking long distances, playing the viola and knitting.

Rachel worked with authors Fiona Jones et al.

Editor Gavin Luymes

Gavin Luymes is a third-year student pursuing an Honours Degree in Human Geography. He has a special interest in the geography of tourism and borders. In his free time, Gavin can be found enjoying the Coast Mountains of British Columbia all year round, browsing Google Earth or honing his command of geographic trivia on Sporcle.

Gavin worked with author Mana Hashimoto.

Editor Joey Mak

I am Joey Mak, currently studying in 3rd year of Environmental and Sustainability program in Geography. As I am digging deeper and deeper in the world of geography, I found my interest in geospatial analysis and visualizing geographical phenomenon. Now I am in a stage of looking ways to transfer my knowledge to skills. Playing table tennis and traveling always bring me enjoyment in leisure.

Joey worked with author Connor Smith.

Editor Sebastian Miskovic

Sebastian is a 3rd year Geography student at the University of British-Columbia. Although he does not enjoy sunsets, he still enjoys long walks on the beach, so long as there is something new to discover or a story to be told. He can be found stirring up a commotion in either the Comp Sci or Geography buildings.

Sebastian worked with author Annie Martin.

Editor Sayna Sadeghi

I'm a 4th year geography student specializing in environment and sustainability with a minor in commerce. I moved to British Columbia from Tehran, Iran six years ago. In these six years I have learned the importance of rain boots, the basic rules of hockey and to say "thank you" every time I get off the bus.

Sayna Sadeghi worked with authors Allison O'Neil and Jane Shi.

Editor Pattie Shang

Pattie is a 3rd year undergrad student in Geography (Environment and Sustainability). She transferred from McMaster University to UBC as an international student. She is interested in global experience, GIS technique, spatial analysis, and getting involved.

Pattie worked with authors Claire Bunton et al.

Author Biographies

Authors **Claire Bunton et al**

The six of us are Human Geography students at UBC who are now done or in the last couple years of our undergraduate degrees. Our hobbies include long walks on the beach and eating cheese fondue. We listen to only *rock* music as Geography means the *world* to us. While reading our paper we hope that we *navigated* our way into your hearts.

Author **Anson Ching**

Anson is graduating with a double major in Human Geography (with an Urban Studies concentration) and Political Science. He often gets depressed by what's happening all around, but he loves this world. He hasn't a clue on what he'll do next except to continue to write, travel, eat, and marvel.

Author **Tess Cohen**

I am a third year Human Geography major with a Political Science minor, originally from the United Kingdom. Like many Geography majors, I have a keen interest in travelling, having been lucky enough to backpack around South East Asia, go on an expedition to Svalbard, Arctic Norway and visit large parts of Europe. After I graduate next summer, I plan to travel South America.

Author **Mana Hashimoto**

Mana is a third year B.A student pursuing a Major in Human Geography and a Minor in International Relations. She has a wide range of research interests particularly in economic development, globalization, urban planning, trade, immigration, and demography. Her recent Go Global seminar to Brazil to study Population Geography has furthered her passion for the field. In her spare time Mana enjoys exploring the locational features of Instagram to virtually travel around the world through others' pictures.

Author **Fiona Jones**

Fascinated by the interactions between the global and local scales, Fiona explores their relationship through her major in Human Geography. Now in her third year, Fiona has a specific interest in seeking to understand how economic disparities arise across these scales. She combines this academic interest with her extracurricular pursuits through her involvement with Oxfam UBC and Red Cross UBC.

Author Kyla Alturra

Kyla Altura is a fourth year Environment and Sustainability student. Her future plans involve going to graduate school to pursue a career in solar energy and remote sensing. In her spare time, she enjoys experimenting with recipes and building her collection of cookbooks. She is currently trying make a paella that would rival her mother's

Author Therise Lee

Therise Lee is a third-year Human Geography and Creative Writing student with a plan to pursue her Bachelor of Education to become a high school Geography teacher. She has a strong passion for social justice issues, such as affordable and accessible healthcare and housing in BC. In her spare time she writes copious amounts of heartfilled and potentially cheesy poems.

Author Samantha Peng

Samantha Peng is a fourth year Human Geography Major who is graduating from her final year at UBC. As a fulltime liberal arts student, she loves reading and writing about all subjects controversial and subjective. However, on her days off from kicking butt in geography she enjoys cooking, reading, watching documentaries and fighting her cat for couch space.

Author and Editor Hyunsoo Kanyamuna

Hyunsoo is an Honours Geography student in the penultimate year of his degree. His research interests lie in urban and economic geography with foci on energy and natural resources. Academics aside, Hyunsoo takes solace in minimalist architectural design, French literature, foreign films, and his beloved caffè Americanos. *Hyunsoo worked with author Alejandro Lazzari.*

Author Alejandro Lazzari

Alejandro Lazzari is a fifth-year human geography major from Argentina. His youth was characterized by the local manifestation of a historic, quarter-century long, global repression of the power of the working class to transform society. His work, both inside and outside the university, hopes to contribute to the reinvigoration of the revolutionary consciousness the working class derives from its alienation in capital.

Author and Editor Annie Martin

Annie Martin is a born and bred Vancouverite completing her Bachelor of Arts this Spring with a major in Human Geography. With an undergraduate focus on anything urban, Annie hopes to begin her Masters of City Planning in Fall 2017. Annie loves riding her bike, sharing a meal with friends and being in the woods. *Annie worked with author Emilia Oscilowicz.*

Author Allison O'Neil

A recent graduate from the International Relations program, Allison is passionate about global migration, not-for-profit organizing, and education. Originally from Montreal, her studies have taken her to Singapore, Hong Kong and Shanghai. She speaks English, French, German, and a little bit of Mandarin Chinese. She hopes to tackle Japan and Japanese next!

Author Jane Shi

Jane Shi is a Han Chinese settler living on the unceded, traditional, and ancestral territories of the Musqueam, Squamish, and Tsleil-Waututh peoples. She was born in Nanjing, China and her education took her to Shanghai, Richmond, France, Italy, Spain, Hong Kong, and Kaiping. At UBC she studies English Honours and Asian Canadian and Asian Migration. She also edits for The Talon UBC and The Garden Statuary. She is interested in how poetry maps and unmaps space.

Author Emilia Oscilowicz

Emilia Oscilowicz is a third-year Environmental and Sustainable Geography Major and Spanish Minor student. Along with her academics, she is an active member of Gamma Phi Beta Sorority and Third-Year Representative of UBC's Arts Undergraduate Society. In her free time, Emilia enjoys skiing at Whistler and hiking in the summers.

Author Connor Smith

I am a 5th year Geography, Environment and Sustainability major at The University of British Columbia. I am from Grimsby, Ontario located in the Niagara Peninsula. My educational interests include air pollution, meteorology, and climatology. Sports are an important aspect of my life. I have actively participated in both Varsity Baseball and Track and Field at UBC and because of this I have travelled all over North America.